

Table S1. List of metabolites identified from RRT-F, RSS-F, RLM-F, RDP-F and RSL-F. (The letter "a, b, c, d" represent four biological replicates)

Index	Ionization model	Q1 (Da)	Q3 (Da)	Molecular Weight (Da)	Formula	Compounds	Classes	Database	CAS	R	R	R	R	Proportion of peak area(%)	RS-S-Fa	RS-S-Fb	RS-S-Fc	RS-S-Fd	Proportion of peak area(%)	RL-M-Fa	RL-M-Fb	RL-M-Fc	RL-M-Fd	Proportion of peak area(%)	RD-P-Fa	RDP-Fb	RDP-Fc	RDP-Fd	Proportion of peak area(%)	RSL-Fa	RS-L-Fb	RS-L-Fc	RS-L-Fd	Proportion of peak area(%)	cp_d_ID	kegg_map	
										T-Fa	T-Fb	T-Fc	T-Fd																								
km0071	[M+H] ⁺	4.1	3.0	46.4	C21H20O12	Quercetin 3-O-galactoside (Hyperin)	Flavonoids	Biochanin P	4836-0	2-0	0	0	0	0	1.1976±0.7421	197000	176000	184000	195000	0.5085±0.274	211000	8000	198000	199000	0.5021±0.2614	503000	520000	5230000	530000	0.7826±0.2345	2260000	24000	26000	234000	0.5057±0.2333	C10073	--
		5.1	3.0	46.4	C21H20O12	Quercetin 3-O-galactoside (Hyperin)	Flavonoids	Biochanin P	4836-0	2-0	0	0	0	0	1.1976±0.7421	197000	176000	184000	195000	0.5085±0.274	211000	8000	198000	199000	0.5021±0.2614	503000	520000	5230000	530000	0.7826±0.2345	2260000	24000	26000	234000	0.5057±0.2333	C10073	--
		5.1	3.0	46.4	C21H20O12	Quercetin 3-O-galactoside (Hyperin)	Flavonoids	Biochanin P	4836-0	2-0	0	0	0	0	1.1976±0.7421	197000	176000	184000	195000	0.5085±0.274	211000	8000	198000	199000	0.5021±0.2614	503000	520000	5230000	530000	0.7826±0.2345	2260000	24000	26000	234000	0.5057±0.2333	C10073	--
km0080	[M-H] ⁻	3.0	8.0	284.0	C16H12O5	Biochanin A	Flavonoids	Biochanin P	4980-5	1-8	0	5	4	7	0.0002±0.0005	4890	4430	5300	4940	0.0013±0.0008	1710	580	1580	1710	0.0004±0.0001	31300	30200	29600	32200	0.0046±0.0006	2060	1660	1650	2130	0.0004±0.0006	C00814	ko00943,ko0101100,ko01110
		3.0	8.0	284.0	C16H12O5	Biochanin A	Flavonoids	Biochanin P	4980-5	1-8	0	5	4	7	0.0002±0.0005	4890	4430	5300	4940	0.0013±0.0008	1710	580	1580	1710	0.0004±0.0001	31300	30200	29600	32200	0.0046±0.0006	2060	1660	1650	2130	0.0004±0.0006	C00814	ko00943,ko0101100,ko01110
		3.0	8.0	284.0	C16H12O5	Biochanin A	Flavonoids	Biochanin P	4980-5	1-8	0	5	4	7	0.0002±0.0005	4890	4430	5300	4940	0.0013±0.0008	1710	580	1580	1710	0.0004±0.0001	31300	30200	29600	32200	0.0046±0.0006	2060	1660	1650	2130	0.0004±0.0006	C00814	ko00943,ko0101100,ko01110
km0081	[M+H] ⁺	1.1	3.0	270.0	C15H10O5	Genistein (4',5,7-trihydroxyisoflavone)	Flavonoids	Biochanin P	4472-0	6-3	3	3	3	3	0.0026±0.0022	8070	5540	6750	6010	0.0018±0.0003	18100	9300	16100	16100	0.0042±0.0004	35300	51000	41000	48000	0.0066±0.00105	40700	44300	51300	35100	0.0089±0.00117	C06563	ko00943,ko0101100,ko01110
		1.1	3.0	270.0	C15H10O5	Genistein (4',5,7-trihydroxyisoflavone)	Flavonoids	Biochanin P	4472-0	6-3	3	3	3	3	0.0026±0.0022	8070	5540	6750	6010	0.0018±0.0003	18100	9300	16100	16100	0.0042±0.0004	35300	51000	41000	48000	0.0066±0.00105	40700	44300	51300	35100	0.0089±0.00117	C06563	ko00943,ko0101100,ko01110
		1.1	3.0	270.0	C15H10O5	Genistein (4',5,7-trihydroxyisoflavone)	Flavonoids	Biochanin P	4472-0	6-3	3	3	3	3	0.0026±0.0022	8070	5540	6750	6010	0.0018±0.0003	18100	9300	16100	16100	0.0042±0.0004	35300	51000	41000	48000	0.0066±0.00105	40700	44300	51300	35100	0.0089±0.00117	C06563	

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07	+H]	4	8	8.0	H20	O-	onoi	o	1	9	9	7	5±1.1	60	30	70	60	4±0.3	000	5	20	000	±0.867	000	000	000	000	9±0.4	000	90	00	00	±0.424		
79	+	9.	7.	0	O11	glucoside	ds	D	5	9	0	2	365	00	00	00	00	624	0	5	00	0	3	0	0	0	0	28	00	00	00	4			
		0	1					e	0	0	0	0		0	0	0	0			0	0							0	0	0					
		0	0					e	0	0	0	0								0															
								p	0	0	0	0								0															
									0	0	0	0								0															
									1	1	1	2								5															
								Bi	9	9	8	0								2															
		3	1					o	64	3	9	9	1		52	51	52	53	0.142	541	7	50	576	0.1306	197	182	1900	203	0.290						
		0	5					D	72	0	0	0	0		70	70	40	50	2±0.0	000	0	60	000	±0.063	000	000	000	000	8±0.0	19	18	18			
km	[M	1.	1.	30	C15		Flav	e	-	0	0	0	0	0.323	00	00	00	00	131		0	00	000	4	0	0	000	0	793	10	10	80	0.3932	C1	
08	-	0	0	2.0	H10		onoi	e	38	0	0	0	0	±0.14							0								1960	00	00	00	±0.215	01	
14	H]-	0	0	4	O7	Morin	ds	p	-4	0	0	0	0	08															000	0	0	0	2	05	--
						Myricetin		Bi	2	1	2	2									1														
		4	3			3-O-		o	17	7	9	1	2																						
		6	1			rhamnosi		D	91	6	1	6	0		74	68	57	56	0.017	256	8	21	207	0.0052											
km	[M	5.	9.	46	C21	de	Flav	e	2-	0	0	0	0	0.037	0	0	0	0	4±0.0	00	1	20	00	±0.006									C1		
08	+H]	1	0	4.1	H20	(Myricitri	onoi	e	87	0	0	0	0	5±0.0					256		0	0		8									01		
18	+	0	0	0	O12	n)	ds	p	-7	0	0	0	0	935																			08	--	
								Bi	2	3	2	2									1														
		2	1					o	9	1	8	9									6														
		7	5					D	48	7	0	4	2		24	24	26	26	0.068	174	6	16	179	0.0417	645	650	6210	673	0.097					ko00941,ko	
km	[M	1.	1.	27	C15		Flav	e	0-	0	0	0	0	0.048	10	40	60	60	8±0.0	000	0	80	000	±0.010	000	000	00	000	6±0.0	18	17	18		C0	00943,ko01
08	-	1	0	2.0	H12	Naringeni	onoi	e	41	0	0	0	0	9±0.0	00	00	00	00	283		0	00		4				161	1750	00	50	10	0.037±	05	100,ko0111
43	H]-	0	0	7	O5	n	ds	p	-1	0	0	0	0	251															00	00	00	00	0.0142	09	0
								Bi	3	3	3	3									1														
		2	1					o	25	3	2	1	1								9														
		7	5					D	51	5	7	7	8		28	28	28	29	0.077	184	0	18	189	0.0455	688	667	7070	745	0.105					C0	ko00941,ko
km	[M	1.	1.	27	C15	Naringeni	Flav	e	5-	0	0	0	0	0.053	70	30	40	70	8±0.0	000	0	50	000	±0.012	000	000	00	000	8±0.0	19	19	20		C0	ko00941,ko
08	-	1	0	2.0	H12	n	onoi	e	46	0	0	0	0	6±0.0	00	00	00	00	135		0	00		4				322	1990	20	60	10	0.041±	65	01100,ko01
49	H]-	0	0	7	O5	chalcone	ds	p	-2	0	0	0	0	384															00	00	00	00	0.017	61	110
								Bi													4														
		4	3					o	32	5	4	4	4																						
		0	7					D	37	1	2	5	1		51	53	47	46	0.013	437	8	43	462	0.011±	490	500	4540	469	0.007					C1	
km	[M	3.	3.	40	C21		Flav	e	-	5	2	7	3	0.007	0	0	0	0	5±0.0	00	1	00	00	0.0067	00	00	0	00	2±0.0	45	11	46	0.0126		
08	+H]	1	0	2.1	H22		onoi	e	44	0	0	0	0	5±0.0					108		0	0						039	3940	30	40	90	±0.068	01	
64	+	0	0	3	O8	Nobiletin	ds	p	-3	0	0	0	0	131															0	0	00	0	5	12	--
		1	1					Bi	2	2	2	2									2														
		5	1					o	65	4	5	4	9		64	52	73	71	0.177	260	5	24	246	0.0614	432	454	4380	449	0.066	15	13	12		C0	
km	[M	5.	1.	15	C5H		Vita	D	-	5	9	4	1	0.042	90	70	90	10	3±0.2	000	6	90	000	±0.016	000	000	00	000	8±0.0	80	50	70	0.3005		
08	-	0	0	6.0	4N2	Orotic	min	e	86	0	0	0	0	9±0.0	00	00	00	00	292		0	00						222	1580	00	00	00	±0.345	02	ko00240,ko
79	H]-	0	0	2	O4	acid	s	e	-1	0	0	0	0	421															000	0	0	0	8	95	01100

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00	-	9	3	4.0	H10	Acid	noli	o	5	5	3	6	1±0.0	80	60	20	30	6±0.0	000	4	50	000	±0.042	000	000	00	000	2±0.0	00	40	50	30	±0.058	04		
00	H]-	3.	4.	6	O4		c	D	9	9	8	8	649	00	00	00	00	216		1	00		3					172		00	00	00	2	70		
53		0	0				acid	e	0	0	0	0								0																
		6	0				s	e	0	0	0	0								0																
								p	0	0	0	0								0																
								Bi																												
		2	1				Phe	o	74	5	6	5	5							2																
kz		3	0			3,4,5-	noli	D	00	5	3	5	6						276	6	30	279	0.0007	607	554	4620	506	0.000								
00	[M	7.	3.	23	C12	Trimethox	c	e	-	8	2	7	5	0.009					0	8	90	0	±0.000	5	0	0		8±0.0		32	33	32	0.0068			
00	-	0	0	8.0	H14	ycinnamic	acid	e	08	0	0	0	0	5±0.0						0									3130	80	70	80	±0.001			
55	H]-	8	0	8	O5	acid	s	p	-0	0	0	0	0	046	-	-	-	-	-										0	0	0	0	5	-	-	
								Bi	1	2	1	1								4																
		2	1				Phe	o	9	0	8	8								6																
kz		9	3				noli	D	4	2	9	6		17	17	17	18	0.048	459	4	43	462	0.1104	368	321	3590	362	0.053								
00	[M	9.	7.	30	C13	Salicylic	c	e		0	0	0	0	0.031	90	70	00	60	2±0.0	000	0	20	000	±0.036	000	000	00	000	1±0.0		70	68	71	0.0145		
00	-	1	1	0.0	H16	acid	acid	e		0	0	0	0	8±0.0	00	00	00	00	182		0								297	6840	90	70	40	±0.005		
56	H]-	0	0	8	O8	glucoside	s	p	-	0	0	0	0	171						0									0	0	0	0	9	-	-	
									1																											
								Bi	13	0	9	9	8							8																
		3	1				Phe	o	78	1	1	7	8		11	11	10	11	0.305	4																
kz		1	5			Protocate	noli	D	87	0	4	0	3		30	10	80	90	±0.11	771	2	80	876	0.2002	673	712	6010	642	0.099							
00	[M	5.	3.	31	C13	chuic acid	c	e	-	0	0	0	0	0.156	00	00	00	00	78	000	0	30	000	±0.124	000	000	00	000	1±0.0		53	50	54	0.0102		
00	-	1	1	6.0	H16	O-	acid	e	25	0	0	0	0	3±0.1	0	0	0	0												3810	10	30	50	±0.015		
58	H]-	0	0	8	O9	glucoside	s	p	-3	0	0	0	0	846						0										0	0	0	0	6	-	-
								Bi																												
		3	1				Phe	o	5	6	4	5								4																
kz		1	4			3-O-p-	noli	D	6	1	8	2		16	14	17	15	0.043																		
00	[M	9.	5.	32	C16	Coumaroy	c	e		1	9	8	8	0.009	80	90	00	90	7±0.0																	
00	-	0	1	0.0	H16	Ishikimic	acid	e		0	0	0	0	1±0.0	00	00	00	00	221																	
59	H]-	0	0	9	O7	acid	s	p	-	0	0	0	0	106						-	-	-	-	-						7470	0	0	0	9	-	-
								Bi																												
		3	1				Phe	o	4	5	4	5								1																
kz		6	7			1-O-	noli	D	0	5	5	5		16	14	17	14	0.042																		
00	[M	9.	7.	36	C17	Feruloyl	c	e		8	7	5	4	0.008	60	70	00	90	7±0.0																	
00	+H]	1	1	8.1	H20	quinic	acid	e		0	0	0	0	1±0.0	00	00	00	00	296																	
64	+	0	0	1	O9	acid	s	p	-	0	0	0	0	121						-	-	-	-	-						4560	50	00	60	±0.013		
								Bi																												
		3	1				Phe	o	5	5	4	4								3																
kz		7	3				noli	D	0	1	6	3		42	71	00	96	0.002	118	4	12	120	0.0303	261	414	4300	241	0.005								
00	[M	5.	7.	37	C19	Feruloyl	c	e		6	8	9	2	0.008	00	00	0	40	2±0.0	000	0	60	000	±0.021	00	00	0	00	1±0.0		31	24	19	0.0051		
00	+H]	2	1	4.1	H18	syringic	acid	e		0	0	0	0	±0.00					079											2260	10	40	60	±0.009		
66	+	0	0	0	O8	acid	s	p	-	0	0	0	0	9						0										0	0	0	0	7	-	-

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										p	0	0	0	0											0																	
										Bi											o	51																				
										D	85	3	3	3	2											49	45	49	51	0.013												
kz			3	1																							583	479							0.000							
00	[M		0	6													80	00	60	40	2±0.0											0	0	0	0	056						
01	+H]		0	0	2.0	C16	7-O-	Flav	e	7-	0	4	3	4	0.000											0	0	0	0	056												
56	+		8	0	8	O6	odictyol	ds	p	-5	0	0	0	0	009																											
										Bi		6	6	6	7																											
										o		3	3	2	1											13	14	14	14	0.385												
kz			4	2													50	70	30	50	6±0.1							278	268													
00	[M		3.	7			Naringeni	Flav	e	9-	0	0	0	0	0.107	00	00	00	00	649	775	3	73	822	0.1845	278	268							0.413								
01	-		1	0	4.1	H22	glucoside	onoi	e	55	0	0	0	0	4±0.0	0	0	0	0		000	0	70	000	±0.105	000	000							4±0.1								
59	H]-		2	0	2	O10	(Prunin)	ds	p	-5	0	0	0	0	944																											
										Bi																																
										o																																
kz			9	6													D	10											384	376	3400	419	0.005									
00	[M		6.	8.		C5H	3-		e	9-																	00	00	0	00	7±0.0											
01	+H]		0	0	95.	5N	Hydroxyp	Oth	e	00																							034									
73	+		4	5	04	O	yridine	ers	p	-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							-	-	-	-	-	-				
											8	6	6	7																												
										Bi		6	5	7	0							61	70	63	55	1.696	458	4	44	338	1.0047	480	354	0.637								
kz			1														D	10	0	0	0	0							30	40	10	70	2±1.8									
00	[M		0.	9.	13	C6H	4-		e	0-	0	0	0	0	1.201	00	00	00	00	949	0	0	0	0	5	000	0	30	000	±1.289	480	354	4±0.9									
01	+H]		0	0	9.0	5N	Nitrophen	Oth	e	02	0	0	0	0	8±2.5	0	0	0	0		0	0	0	0	5	0	0	0	0	0	0	0	601									
79	+		0	0	3	O3	ol	ers	p	-7	0	0	0	0	905																			5350								
											1	1	1	1																			000									
											7	9	8	8																			0									
										Bi		0	7	9	0							14	13	14	14	3.854	195	3	19	175	4.6018	169	154	2.453								
										o		0	0	0	0							30	50	30	90	±1.01	000	0	40	000	±2.524	169	154	2±0.8								
kz			1	1													D	50	0	0	0	0							00	00	00	00	78	000	0	00	0.003					
00	[M		2.	4.	14	C6H			e	1-	0	0	0	0	3.036	00	00	00	00		00	00	00	00	5	000	0	00	000	000	000	000	117									
01	+H]		1	0	1.0	11N		Oth	e	28	0	0	0	0	±1.19																			1820								
80	+		0	9	9	3O	Histidinol	ers	p	-0	0	0	0	0	7																			0000								
										Bi																																
										o		1	1	2	1																											
kz			1	1													D	49	7	6	6	7							20	19	17	19	0.005									
00	[M		5.	3.	16	C10			e	9-	0	0	7	9	0.003	80	90	60	60	3±0.0	188	4	18	175	0.0042	194	227	1590	213	0.003												
01	+H]		1	0	4.0	H12		Oth	e	44	0	0	0	0	2±0.0	0	0	0	0	041	00	6	70	00	±0.004	00	00	0	00	±0.00												
83	+		0	0	8	O2	Hinokitio	ers	p	-5	0	0	0	0	103																			1960								
kz	[M		2	9	21	C5H	2-	Oth	Bi	17	4	4	4	5	0.007	76	65	68	69	0.018							118	121	1280	141	0.019											
00	-		1	7.	4.0	11O	Deoxyribo	ers	o	21	0	6	0	0	3±0.0	10	00	60	90	9±0.0	-	-	-	-	-	000	000	00	000	1±0.0	-	-	-	-	-	06						

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02	+	2.	0.	6	N5	N-	s	D	1	6	0	2	108	00	00	00	00	186	7	00	5					765	0	0	0	9						
40		2	2		O6	Glucoside		e	0	0	0	0							0																	
		0	0					e	0	0	0	0							0																	
								p	0	0	0	0							0																	
								Bi	6	6	6	7							7																	
		2	1					o	17	3	4	3	1						0																	
kz		5	2		C11	Nicotinate		D	72	8	3	4	9		23	25	27	26	0.069	709	9	65				0.140										
00	[M	6.	4.	25	H14	D-	Vita	e	0-	0	0	0	0	0.108	30	00	90	30	3±0.0	000	0	90	670	0.167±	983	904	8900	962	0.140							
02	+H]	2	1	6.0	NO	ribonucle	min	e	18	0	0	0	0	8±0.0	00	00	00	00	472		0	00	000	0.0649	000	000	00	000	9±0.0	65	63	59	0.1309	C0		
58	+	0	0	8	6+	oside	s	p	-2	0	0	0	0	9							0								499	6320	20	90	70	±0.038	58	ko00760,ko
								Bi																									41	01100		
		2	1					o	2	2	2	2								1																
kz		6	2		C12			D	1	7	1	4			16	19	17	16	0.004	121	0	85	115	0.0026	595	636	5110	698	0.009						ko00730,ko	
00	[M	5.	2.	26	H17		Vita	e	2	9	5	5	0.003	50	90	30	80	8±0.0	00	8	70	00	±0.003	00	00	0	00	2±0.0		44	52	48	0.0095	C0	01100,ko02	
02	+H]	1	1	5.1	N4		min	e	0	0	0	0	9±0.0	0	0	0	0	049		0			5					098	3790	60	30	40	±0.011	03	010,ko0412	
59	+	0	0	1	OS+	Thiamine	s	p	-	0	0	0	0	048							0									0	0	0	0	5	78	2
								Bi												1																
kz		3	1					o	1	1	1	2			16	17	15	16	0.004	190	6	18	163	0.0043	159	186	1740	140	0.002							
00	[M	2.	2.	33	H21	Pyridoxin	Vita	e	5	3	3	7	0.003	50	10	10	60	4±0.0	00	4	50	00	±0.003	00	00	0	00	5±0.0		11	13	12	0.0027	C0		
02	+H]	1	0	1.1	NO	e-5'-O-	min	e	0	0	0	0	3±0.0	0	0	0	0	028		0	0	00	1					036	1400	60	40	30	±0.002	39		
63	+	3	7	3	8	glucoside	s	p	-	0	0	0	0	021							0									0	0	0	0	3	96	--
								Bi												7																
kz		3	2					o	5	7	6	6			82	97	10	10	0.026	747	0	85	803	0.0189	350	352	3780	467	0.005							
00	[M	9.	7.	36	C20	N-		D	8	7	3	5			50	50	90	60	7±0.0	00	9	80	00	±0.016	00	00	0	00	8±0.0		17	14	14	0.0317		
02	+H]	1	1	8.0	H16	sinapoylh	Cou	e	6	6	7	9	0.010	0	0	00	00	302		0	0	00	2					067	1340	90	80	90	±0.038			
74	+	2	0	9	O7	marin	ins	p	-	0	0	0	0	114							0									00	00	00	00	5	-	-
								Bi																												
kz		1	1					o	51	8	7	5	7		40	27	35	41	0.009																	
00	[M	3.	5.	13		4-	Alka	D	92	4	8	5	6		90	30	40	50	8±0.0																	
02	+H]	1	1	2.0	C8H	Aminoind	loid	e	-	7	5	1	9	0.012	0	0	0	0	168																	
76	+	0	0	7	8N2	ole	s	p	-4	0	0	0	0	29						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
								Bi																												
kz		1	1					o												1																
00	[M	6.	0.	17	H9	Indole 3-	Alka	D	87						143	0	11	150	0.0031									0.005								
02	+H]	1	1	5.0	NO	acetic acid	loid	e	51						00	3	40	00	±0.005									3±0.0		12	14	10	0.0026	C0	ko00380,ko	
78	+	0	0	6	2	(IAA)	s	p	-4	-	-	-	-	-							0							047	1230	70	40	90	±0.002	09	01100,ko04	
kz	[M	8	5	90.	C3H	3-	Org	Bi	50	1	1	1	1	0.021	90	97	92	99	0.025	107	1	10	104	0.0257	161	146	1600	163	0.023	3520	29	39	33	0.0071	C0	ko00240,ko
00	-	9.	9.	03	6O3	Hydroxypr	anic	o	3-	3	3	2	1	4±0.0	70	40	20	50	7±0.0	000	0	50	000	±0.004	000	000	00	000	7±0.0	0	10	10	90	±0.007	10	00410,ko00

02	H]-	0	0			opanoic	acid	D	66	9	6	3	9	252	0	0	0	0	122		6	00		3				1		0	0	0	8		13	640,ko0110		
84		0	0			acid	s	e	-2	0	0	0	0								0													0,ko01200				
								p		0	0	0	0								0																	
								Bi													7																	
		1						o	15	5	6	6	6																									
kz		1	5				Org	D	66	5	1	6	1		43	62	49	56	0.014		5	72		0.0189		688	693	9580	553	0.010								
00	[M	7.	9.	11		D-	anic	e	7-	7	1	0	7	0.010	80	70	60	30	4±0.0	750	0	10	896	±0.018	5	00	00	0	00	9±0.0		94	89	77	0.0176			
02	-	0	0	8.0	C4H	Erythrono	acid	e	21	0	0	0	0	1±0.0	0	0	0	0	235	00	0	0	00	5		00	00	0	00	282	7660	60	50	50	±0.015			
89	H]-	0	0	3	6O4	lactone	s	p	-7	0	0	0	0	073							0										0	0	0	0	6	-	-	
								Bi			1										8																	
		1						o	10	8	0	8	7		53	61	58	62	0.015		6	88		0.0223		192	171	1770	200	0.027								
kz		1	7				Org	D	68	0	3	3	9		20	60	30	30	9±0.0	990	8	40	922	±0.009	8	000	000	00	000	9±0.0		24	24	23	0.0498	C0		
00	[M	8.	4.	11	C3H		anic	e	-	9	0	8	0	0.014	0	0	0	0	116	00	0	0	00	8		000	000	00	000	133	2260	60	80	90	±0.015	08		
02	-	0	0	9.0	5N	Aminomal	acid	e	84	0	0	0	0	3±0.0							0																	
90	H]-	0	0	2	O4	onic acid	s	p	-4	0	0	0	0	176																	00	00	00	00	1	72	--	
								Bi		2	2	2	2								3																	
		1						o		3	1	4	1								8																	
kz		2	7				Org	D	98	8	7	5	9		14	14	14	15	0.040		6	38		0.0957		146	158	1420	159	0.022								
00	[M	2.	8.	12	C6H		anic	e	-	0	0	0	0	0.038	90	60	90	30	4±0.0	394	0	60	408	±0.020	6	000	000	00	000	8±0.0		12	11	10	0.0237	C1		
02	-	0	0	3.0	5N	2-Picolinic	acid	e	98	0	0	0	0	±0.04	00	00	00	00	039	000	0	00	000	6		000	000	00	000	108	1130	10	60	70	±0.009	01	ko00380,ko	
91	H]-	3	0	3	O2	acid	s	p	-6	0	0	0	0	3							0										00	00	00	00	8	64	01100	
								Bi		4	4	4	4								3																	
		1						o		1	7	7	6								3																	
kz		3	8				Org	D	11	4	4	3	3		16	15	14	20	0.045		7	31		0.0744		343	333	3050	306	0.048								
00	[M	1.	7.	13			anic	e	0-	0	0	0	0	0.075	00	50	90	30	1±0.0	282	0	60	288	±0.073	2	000	000	00	000	5±0.0		25						
02	-	0	0	2.0	C5H	Glutaric	acid	e	94	0	0	0	0	2±0.0	00	00	00	00	626	000	0	00	000	2		000	000	00	000	352	2150	19	10	20	0.1583	C0	ko00071,ko	
93	H]-	4	0	4	8O4	acid	s	p	-1	0	0	0	0	325							0										00	00	0	00	3	89	100	
								Bi													1																	
		1						o	13	5	4	4	3		79	87	86	88	0.023		4	13		0.0036		732	674	7860	770	0.011								
kz		3	8			2-	Org	D	74	0	8	5	6		80	70	50	60	2±0.0	161	5	30	155	±0.002	6	00	00	0	00	2±0.0		44	42	35	0.0087			
00	[M	1.	5.	13	C6H	Hydroxyis	anic	e	8-	0	7	5	7	0.007	0	0	0	0	111	00	0	0	00	6		00	00	0	00	074	4440	80	60	70	±0.008			
02	-	0	0	2.0	12O	ocaproic	acid	e	90	0	0	0	0	5±0.0							0																	
94	H]-	8	0	8	3	acid	s	p	-8	0	0	0	0	138																	0	0	0	0	2	-	-	
								Bi													2																	
		1						o	23	5	4	5	5		80	75	80	89	0.022		3	23		0.0585		843	655	6690	767	0.011								
kz		4	8				Org	D	06	0	2	3	7		70	80	30	00	±0.01	249	0	90	245	±0.011	9	000	000	0	00	±0.01		49	57	38	0.0094	C0		
00	[M	7.	7.	14			anic	e	-	4	3	8	8	0.008	0	0	0	0	21	000	0	00	000	9		00	00	0	00	2	3600	60	20	70	±0.017	08		
02	-	0	1	8.0	C5H	Citramalat	acid	e	22	0	0	0	0	5±0.0							0											0	0	0	0	9	15	--
96	H]-	0	0	4	8O5	e	s	p	-1	0	0	0	0	153																	0	0	0	0	9			
kz	[M	1	7	17	C3H	DL-	Org	Bi	59	4	5	4	4	0.007	57	74	62	63	0.017	359	3	30	302	0.0079		842	825	1020	919	0.013	3960	31	35	32	0.0072	C0		
00	-	6	9.	0.0	7O6	Glycerald	anic	o	1-	3	9	2	6	9±0.0	00	50	30	40	4±0.0	00	2	90	00	±0.005		00	00	00	00	6±0.0	0	50	40	10	±0.008	06	--	

0300	H]-	9.00	00	P	ehyde 3-phosphate	acid	D	593610	134	0000	221	0000	70	6		146	0001	61															
							p																										
							Bi																										
kz000302	[M-]	5.10	5.07	176.0	C7H12O5	2-Isopropyl malate	Organic	D	4940	57900	0.0095±0.0219	76500	30800	41800	64400	0.0144±0.0557	37900	36600	39400	0.009±0.0038	455000	493000	604000	675000	0.0838±0.1388	189000	196000	174000	210000	0.04±0.0403	C02504	ko00290,ko00620,ko01100,ko01210,ko01230	
							Bi																										
kz000304	[M-]	9.10	9.01	210.1	C12H18O3	(±)-Jasmonic acid	Organic	D	77692	75000	87000	0.0132±0.054	61100	62700	61700	62600	0.1678±0.0376	99100	92000	96100	0.0025±0.0028	68500	60500	57900	72200	0.001±0.0008	119000	126000	124000	121000	0.0025±0.0006	C08491	ko00592,ko01100,ko04075
							Bi																										
kz000306	[M+H]	5.10	1.10	4.14	C13H20O3	Methyl jasmonate	Organic	D	121129	45000	54000	0.0009±0.024	44900	45600	42400	42900	0.0119±0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C11512	ko00592,ko01110
							Bi																										
kz000307	[M-]	9.10	7.10	290.1	C10H18N4O6	Argininosuccinic acid	Organic	D	23871	19300	88600	0.0048±0.0357	23000	19300	88600	19000	0.0048±0.0167	54800	19900	15100	0.0094±0.0604	260000	240000	112000	335000	0.0035±0.0131	148000	143000	165000	138000	0.0031±0.0017	C03406	ko00220,ko00250,ko01100,ko01230
							Bi																										
kz000308	[M-]	2.40	9.73	32.2	C18H29NO4	N-[(L)-]-(L)-Isoleucine (JA-L-Ile)	Organic	D	30593	15000	54000	0.0026±0.015	34400	35000	35400	35500	0.0095±0.014	14000	12700	15300	0.0003±0.0002	219000	182000	216000	213000	0.0003±0.0003	219000	214000	220000	207000	0.0004±0.0001	C18699	ko04075
							Bi																										
kz000310	[M-]	8.70	4.30	88.02	C3H4O3	Pyruvic acid	Organic	D	12717	000	000	0.0458±0.0433	79600	98700	100000	101000	0.0257±0.0271	115000	104000	91500	0.0246±0.0236	101000	772000	943000	103000	0.0141±0.0155	182000	175000	187000	202000	0.0388±0.0296	C00022	ko00010,ko00020,ko00030,ko00040,ko00053,ko00250,ko00260,ko00270,ko00290,

[illegible]

[illegible]

09	H]-	9.	7.	9	O11	glucoside		D	7	7	8	3	46	00	00	00	00	817	6	00	8	0	0	0	03	00	00	00	8							
97		1	1					e	0	0	0	0		0	0	0	0		0																	
		9	4					e	0	0	0	0							0																	
								p	0	0	0	0							0																	
									0	0	0	0																								
						1-		Bi											1																	
		1				Aminocycl		o	22	1	3	2	1						1																	
kz		0	5			opropane-		D	05	6	0	2	8		11	13	12	15	0.003	132	4	13	146	0.0034	120	125	1360	117	0.001							
00	[M	2.	6.	10	C4H	1-		e	9-	0	1	6	1	0.003	40	50	90	50	6±0.0	00	2	20	00	±0.001	00	00	0	00	9±0.0	20	28	20	0.0044	C0	ko00270,ko	
10	+H]	0	0	1.0	7N	carboxylic	Oth	e	21	0	0	0	0	6±0.0	0	0	0	0	044		0	0							1480	80	00	90	±0.010	12	01100,ko01	
08	+	5	5	5	O2	acid	ers	p	-8	0	0	0	0	112							0								0	0	0	0	2	34	110	
								Bi																												
		1						o	64										1																	
kz		2	6					D	81										142	2	71	106	0.0027	172	107	1210	142	0.002								
00	[M	6.	8.	12	C6H	1-		e	-										00	0	30	00	±0.007	00	00	0	00	±0.00	15	15	14	0.0314				
10	+H]	1	0	5.1	11N	Methylhis	Oth	e	48											0								41	1490	10	60	90	±0.002	-	-	
14	+	0	0	0	3	tamine	ers	p	-7	-	-	-	-	-	-	-	-	-			0								00	00	00	00	2	-	-	
								Bi																												
		1				3-Amino-		o	36	1		1	1						1																	
kz		3	7			1-		D	87	1	9	2	0		98	78	10	11	0.002	133	0	11	705	0.0025	443	455	4320	481	0.006							
00	[M	8.	9.	13	C3H	propionic		e	-	6	2	3	5	0.001	80	30	50	60	7±0.0	00	2	00	0	±0.006	00	00	0	00	8±0.0	18	23	15	0.0039			
10	-	0	9	9.0	9N	sulfonic	Oth	e	18	0	2	0	0	8±0.0			0	0	039		0	0	1					017	1910	30	60	20	±0.006	-	-	
18	H]-	2	6	3	O3S	acid	ers	p	-1	0	0	0	0	034							0								0	0	0	0	2	-	-	
								Bi																												
		1	1					o		4	5	5	5							1																
kz		4	1			4-Methyl-		D	13	5	2	6	3		41	43	46	44	0.118	151	1	14	153	0.3647	202	205	1850	208	0.030							
00	[M	4.	3.	14	C6H	5-		e	7-	0	0	0	0	0.084	90	30	10	00	6±0.0	000	0	50	000	±0.081	000	000	00	000	1±0.0	75	73	66	0.0148	C0		
10	+H]	0	2	3.0	9N	thiazoleet	Oth	e	00	0	0	0	0	±0.03	00	0	0	0	408		0	0	0	9					121	7010	40	10	80	±0.005	42	ko00730,ko
20	+	5	0	4	OS	hanol	ers	p	-8	0	0	0	0	59					59		0								0	0	0	0	8	94	01100	
								Bi																												
		1						o	32	5	7	7	6							2																
kz		7	8			D-		D	44	2	3	3	7		63	48	61	59	0.015	190	3	24	250	0.0056	533	539	5350	544	0.081							
00	[M	5.	5.	17		Glucurono		e	9-	8	7	0	4	0.011	10	20	90	70	7±0.0	00	0	90	00	±0.007	000	000	00	000	1±0.0	41	42	40	0.0854	C0		
10	-	0	0	6.0	C6H	-6,3-	Oth	e	92	0	0	0	0	±0.01	0	0	0	0	168		0	0		3					19	4030	30	30	40	±0.005	26	ko00053,ko
25	H]-	2	3	3	8O6	lactone	ers	p	-6	0	0	0	0	6					6		0									00	00	00	00	2	70	01100
								Bi		1	1	1	1																							
		2						o	18	5	4	4	3							5																
kz		2	8			N-Acetyl-		D	11	0	8	0	2		75	84	77	72	0.021	579	8	41	637	0.0134	200	170	1900	207	0.028							
00	[M	2.	4.	22	C8H	D-		e	-	0	0	0	0	0.023	00	80	40	70	±0.01	00	0	30	00	±0.022	000	000	00	000	9±0.0	16	15	13				
10	+H]	1	0	1.0	15N	galactosa	Oth	e	31	0	0	0	0	6±0.0	0	0	0	0	74		0	0		9					19	1730	20	50	80	0.0326	-	-
32	+	0	5	9	O6	mine	ers	p	-0	0	0	0	0	229					229		0									00	00	00	00	±0.031	-	-

11	+	8.	0	6			s	D	72	3	8	2	9	038	0	0	0	0	021		3	0		3					33		0	0	0	7		63	402,ko0110
98		0	0					e	-9	0	0	0	0								0														0,ko01110		
		7						e		0	0	0	0								0																
								p																													
								Bi																													
		1						o		2	3	3	2								7																
kz		4	9					D	48	9	7	7	9		24	31	19	33	0.007		0	73							0.077								
00	[M	6.	1.	14	C9H	Indole-3-	Alka	e	7-	6	8	9	9	0.005	20	90	70	30	4±0.0	696	8	90	760	0.0176	529	492	4960	537	4±0.0		54	46	49	0.1043	C0		
11	+H]	0	0	5.0	7N	carboxald	loid	e	89	0	0	0	0	6±0.0	0	0	0	0	177	00	0	0	00	±0.007	000	000	00	000	185	4990	10	90	60	±0.074	84		
99	+	6	0	5	O	ehyde	s	p	-8	0	0	0	0	081							0									00	00	00	00	5	93	--	
								Bi																													
		1	1					o		2	3	3	3								3																
kz		6	1					D	77	9	2	2	6		27	33	32	29	0.008		4	43						0.068									
00	[M	0.	6.	16	C9H	Indole-3-	Alka	e	1-	2	1	6	2	0.005	90	90	10	30	3±0.0	329	5	00	376	0.009±	446	433	4680	482	9±0.0		57	59	55	0.1182			
12	-	0	0	1.0	7N	carboxylic	loid	e	50	0	0	0	0	4±0.0	0	0	0	0	082	00	0	0	00	0.0114	000	000	00	000	261	5460	20	90	90	±0.020			
03	H]-	4	0	5	O2	acid	s	p	-6	0	0	0	0	051							0									00	00	00	00	9	-	-	
								Bi																													
		1						o	19		1	1	1								7																
kz		0	6				Org	D	56	9	3	2	1		67	65	65	59	0.017		7	95	948	0.0023	157	147	1340	172	0.002						ko00250,ko		
00	[M	4.	8.	10	C4H	γ-	anic	e	/1	6	2	0	6	0.001	30	00	60	20	4±0.0	104	5	70	0	±0.002	00	00	0	00	3±0.0		11	16		0.0024	C0		
12	+H]	0	8	3.0	9N	Aminobut	acid	e	2/	8	0	0	0	9±0.0	0	0	0	0	11	00	0			4	00	00	0	00	018		60	70	92	±0.006	03		
61	+	7	0	6	O2	rylic acid	s	p	2	0	0	0	0	021							0									9050	0	0	10	7	34	ko00760,ko01100	
										7	7	8	7								1																
								Bi		1	4	3	4		10	74	95	92			1																
		1					Org	o		1	1	7	3		70	80	20	50	2.496		0	10															
kz		0	5					D	30	0	0	0	0		00	00	00	00	9±3.4	101	0	00	110	±1.459	000	000	9260	107	1.503		75	92	74				
00	[M	3.	9.	10		3-	anic	e	0-	0	0	0	0	1.252	00	0	0	0	274	00	0	00	00	6	00	0	00	00	8±1.4		00	40	30	1.6236			
12	-	0	1	4.0	C4H	Hydroxyb	acid	e	85	0	0	0	0	2±1.1							0									7130	00	00	00	±1.565			
64	H]-	4	0	5	8O3	utyrate	s	p	-6	0	0	0	0	462							0									000	0	0	0	9	-	-	
										1	1	1	1																								
								Bi		1	2	1	0								3																
		1						o		3	1	3	5		96	95	10	93	0.262		3																
kz		1	6				Org	D	88	0	0	0	0		80	20	00	40	±0.09	368	9	38	348	0.0873	100	984	9730	109	0.152		10	10	10				
00	[M	1.	7.	11		2-	anic	e	-	0	0	0	0	0.186	00	00	00	00	78	000	0	20	000	±0.045	000	000	00	000	4±0.0		40	80	10	0.2138	C0		
12	-	0	0	2.0	C5H	Furanoic	acid	e	14	0	0	0	0	6±0.1							0			8	0	000	0	355		9860	00	00	00	±0.038	15		
68	H]-	1	0	2	4O3	acid	s	p	-2	0	0	0	0	294							0									00	0	0	0	1	46	ko01100	
								Bi		2	2	2	2																								
		1						o	51	4	7	6	5		16	16	16	16	0.444		2																
kz		1	7				Org	D	6-	9	8	5	2	0.430	10	90	40	30	5±0.1	275	6	27	279	0.6606	533	528	5380	557	0.812		70	70	68		ko00240,ko		
00	[M	7.	3.	11			anic	e	05	0	0	0	0	9±0.1	00	00	00	00	523	000	0	30	000	±0.143	000	000	000	000	6±0.1		10	60	00	1.4247	C0		
12	-	0	0	8.0	C4H	Methylma	acid	e	-2	0	0	0	0	498	0	0	0	0			0		0	9	0	0	5380	0	208	6550	00	00	00	±0.319	21		
75	H]-	2	0	3	6O4	lonic acid	s	e	-2	0	0	0	0								0									000	0	0	0	9	70	0	

12	H]-	1.	2	1			acid	D	42						0	0	0	0	267		2	0		2				049		0	0	0	2		36	250,ko0062
84			0	0			s	e	-7												0														0,ko00630,	
			0					e													0														ko00710,ko	
								p																											01100,ko01	
																																			110,ko0120	
																																			0,ko01210,	
																																			ko01230	
								Bi		5	6	6	5								2															
		1						o		4	4	1	8								7															
kz		3	8				Org	D	49	2	5	3	9		20	19	17	15	0.048	302	2	25	253	0.0655	700	665	7060	722	0.105							
00	[M	1.	7.	13		2-	anic	e	8-	0	0	0	0	0.098	20	30	20	30	8±0.0	000	0	10	000	±0.051	000	000	00	000	3±0.0		71	67	62			
12	-	0	0	2.0	C5H	Methylsuc	acid	e	21	0	0	0	0	5±0.0	00	00	00	00	653		0	00							5940	10	20	30	0.135±			
85	H]-	3	0	4	8O4	cinic acid	s	p	-5	0	0	0	0	469							0								00	00	00	00	0.0905	-	-	
								Bi		2	3	3	3																							
		1						o	13	9	0	0	0								6															
kz		3	8			(S)-(-)-2-	Org	D	74	6	2	0	0		58	61	58	64	0.163	852	5	80	610	0.0177	476	514	5060	566	0.077							
00	[M	1.	5.	13	C6H	Hydroxyis	anic	e	8-	0	0	0	0	0.049	00	10	30	40	5±0.0	00	0	00	00	±0.026	000	000	00	000	7±0.0		25	31	26			
12	-	0	0	2.0	12O	ocaproic	acid	e	90	0	0	0	0	5±0.0	00	00	00	00	8		0	0							2400	90	90	20	0.056±			
87	H]-	7	0	8	3	acid	s	p	-8	0	0	0	0	19							0								00	00	00	00	0.0571	-	-	
								Bi		6	9	7	7								1															
		1						o	4	8	6	0									3															
kz		3	7				Org	D	63	9	8	6	8		48	41	49	53	0.130	149	2	17	164	0.0375	155	151	1530	164	0.234			10				
00	[M	3.	1.	13			anic	e	6-	0	0	0	0	0.127	70	60	30	90	7±0.1	000	0	20	000	±0.042	000	000	1530	000	7±0.0		91	70	92	0.1958		
12	-	0	0	4.0	C4H		acid	e	61	0	0	0	0	9±0.2	00	00	00	00	187		0	00				0	0	25	8650	40	00	30	±0.138			
89	H]-	1	0	2	6O5	Malic acid	s	p	-3	0	0	0	0	466							0								00	00	0	00	1	-	-	
									1			1									1															
		1						Bi		0	9	9	0								0															
		1						o	35	4	6	9	4		11	12	12	11	0.321	110	7	11	109	0.2668	143	142	1440	148	0.217							
kz		4	5				Org	D	88	0	5	7	0		70	10	20	50	4±0.1	000	0	30	000	±0.067	000	000	1440	000	5±0.0		11	17	12			
00	[M	1.	9.	14		Trans,tran	anic	e	-	0	0	0	0	0.167	00	00	00	00	191	0	0	00	0	9	0	0	000	0	351		20	90	10	0.2708		
12	-	0	0	2.0	C6H	s-Muconic	acid	e	17	0	0	0	0	2±0.1	0	0	0	0			0								1110	00	00	00	±0.600			
91	H]-	2	0	3	6O4	acid	s	p	-8	0	0	0	0	469							0								000	0	0	0	2	-	-	
								Bi		2	2	2	2								1															
		1						o	30	1	6	2	2								0															
kz		4	8			4-	Org	D	25	3	5	2	3		13	14	14	14	0.038	929	8	98	893	0.0236	131	122	1220	132	0.191							
00	[M	6.	6.	14	C6H	Acetamid	anic	e	-	0	0	0	0	0.038	60	70	20	30	4±0.0	00	0	0	00	±0.023	000	000	1220	000	±0.04		18	22	21	0.0422	C0	
12	+H]	0	0	5.0	11N	obutyric	acid	e	96	0	0	0	0	±0.03	00	00	00	00	158		0	0			0	0			1770	90	90	70	±0.045	29		
92	+	8	0	7	O3	acid	s	p	-5	0	0	0	0	21							0								00	00	00	00	8	46	ko00330,ko	
kz		1	8			4-	Org	Bi	46	1	1	1	1								1	17								26	26	25				
00	[M	4	7.	14	C5H	Guanidino	anic	o	3-	3	4	1	3	0.218	56	57	62	58	0.158	167	6	90	171	0.4152	495	508	4990	548	0.772		10	40	10	0.5358	C0	
12	+H]	6.	0	5.0	11N	butyric	acid	D	00	3	2	6	8	4±0.2	70	90	00	20	8±0.0	000	6	00	0	±0.169	000	000	4990	000	3±0.1		00	00	00	±0.047	10	ko00330,ko
93	+	0	0	9	3O2	acid	s	e	-3	0	0	0	0	248	00	00	00	00	547	0	0	0	2		0	0		0	947	000	0	0	0	5	35	01100

[illegible]

[illegible]

13	H]-	1.	0	6	6		acid	D	95	7	4	0	1	938	00	00	00	00	461	0	9	00	0	3			245		00	00	00		96			
18		0	0				s	e	-2	0	0	0	0		0	0	0	0		0	0							0	0	0						
		6						e		0	0	0	0							0																
								p		0	0	0	0							0																
										0	0	0	0							0																
								Bi		4	4	5	5							5																
		1				D-		o		1	9	2	9							0																
kz		9	7			Galacturo	Org	D	68	1	0	3	3		68	60	65	59	0.171		48				137	131	1300	154	2.077		62	60	60		ko00040,ko	
00	[M	3.	2.	19	C6H	nic	anic	e	5-	0	0	0	0	0.083	50	00	60	70	7±0.1	473	0	90	491	0.1187	000	000	1300	000	7±1.0		20	30	00	C0	00053,ko00	
13	-	0	8	4.0	100	acid(Gal	acid	e	73	0	0	0	0	1±0.1	00	00	00	00	159		0	00	000	±0.044	00	00	0000	00	409	5900	00	00	00	1.2553	03	520,ko0110
19	H]-	4	0	4	7	A)	s	p	-4	0	0	0	0	409						0									000	0	0	0	±0.353	33	0,ko02010	
								Bi												1																
		2	2					o			1									1																
kz		2	1				Org	D	69	8	0	9	9		98	87	87	92	0.002		10			0.0027		132	134	1260	124	0.001		12	21	12	0.0032	C0
00	[M	9.	1.	23	C12		anic	e	3-	7	3	2	7	0.001	30	80	40	00	5±0.0	112	5	90	107	±0.001	00	00	0	00	9±0.0							
13	-	1	0	0.1	H22	Dodecane	acid	e	23	3	0	7	6	6±0.0					014		0			1					1380	50	90	80	±0.008	26		
25	H]-	4	0	5	O4	dioic acid	s	p	-2	0	0	0	0	007						0									0	0	0	0	4	78	--	
								Bi	10												1															
		5	2					o	38	2	3	3	3							1																
kz		7	8				D	83	7	5	4	1			51	49	52	49	0.013		22			0.0043		443	435	3760	352	0.006						
00	[M	7.	7.	57	C30		Flav	e	-	2	6	8	1	0.005	90	80	00	50	7±0.0	136	9	70	227	±0.014	00	00	0	00	1±0.0							
13	+H]	1	0	6.1	H24	Procyanidi	onoi	e	03	0	0	0	0	3±0.0	0	0	0	0	038		0			1												
31	+	3	0	3	O12	n A1	ds	p	-0	0	0	0	0	06						0									-	-	-	-	-	-	-	
										1	1	1	1							2																
								Bi		1	3	2	4							0																
		5	4					o	29	9	2	4	1		46	46	48	44	0.125	233	8	21			120	117	1200	138	0.186							
kz		7	0				D	10	0	0	0	0	0		90	20	40	40	8±0.0	000	0	70	227	±0.188	000	000	1200	138	3±0.0							
00	[M	7.	7.	57	C30		Flav	e	6-	0	0	0	0	0.212	00	00	00	00	495	0	0	00	0	7		0	0	0	921						C1	
13	-	1	1	8.1	H26	Procyanidi	onoi	e	49	0	0	0	0	9±0.1							0														76	
32	H]-	4	0	4	O12	n B2	ds	p	-8	0	0	0	0	546						0									-	-	-	-	-	39	--	
																				1																
								Bi		9	9	8	9							5																
		5	4					o	23	0	4	7	3		35	30	32	33	0.089	173	5	16			177											
kz		7	0				D	56	1	7	1	4			50	50	80	10	2±0.0	000	0	20			917	889	8710	990	0.138							
00	[M	7.	7.	57	C30		Flav	e	7-	0	0	0	0	0.150	00	00	00	00	507	0	0	00	0	±0.195	000	000	8710	990	1±0.0							
13	-	1	1	8.1	H26	Procyanidi	onoi	e	23	0	0	0	0	9±0.0							0															
33	H]-	4	0	4	O12	n B3	ds	p	-9	0	0	0	0	671						0									-	-	-	-	-	-	-	
		5	4					Bi	20	9	1	1	1							1																
kz		7	2					o	31	9	0	0	0		38	34	37	33	0.097	189	6	17			185	0.4325		987	958	9650	107	0.149				
00	[M	7.	5.	57	C30		Flav	D	5-	3	5	2	8	0.171	70	00	30	40	±0.06	000	4	40			000	±0.212	000	000	9650	107	9±0.0					
13	-	1	1	8.1	H26	Procyanidi	onoi	e	25	0	0	0	0	1±0.0	00	00	00	00	91	0	0	0	0	2		000	000	0	34							
35	H]-	4	0	4	O12	n B1	ds	e	-7	0	0	0	0	611						0									-	-	-	-	-	-	-	

										p	0	0	0	0											0													
												0	0	0											0													
										Bi															2													
										o	37	7	8	7	8											3												
kz			8	5						D	06	3	4	2	1	33	36	40	28	0.009		229	7	22	218	0.0552	492	689	6360	842	0.01±							
00	[M	7.	7.	86	C45		Flav	e	4-	4	7	2	5		0.012	50	80	90	10	4±0.0		000	0	40	000	±0.024	00	00	0	00	0.019							
13	+H]	2	1	6.2	H38	Procyanidi	onoi	e	31	0	0	0	0		9±0.0	0	0	0	0	15		0	00	00	3						8							
40	+	1	3	1	O18	n C2	ds	p	-6	0	0	0	0		086													0										
										Quercetin																1												
										-O-																7												
kz			7	3						D		8	6	3	7	59	47	68	78	0.001		216	0	16	222	0.0466	102	668	8430	676	0.001							
00	[M	7.	3.	75	C33	-O-	Flav	e		6	6	4	3		0.001	00	10	20	40	7±0.0		000	0	00	000	±0.070	00	0			2±0.0							
13	+H]	2	0	6.2	H40	rhamnosi	onoi	e		3	6	2	9		1±0.0					034		0	00	0	8						026	1750	16	16	14			
80	+	2	5	1	O20	de	ds	p	-	0	0	0	0		049													0										
											1	1	1	1												2												
										Bi	9	9	9	8		15	16	17	16			239	5	22	221	0.5635	210	214	2070	207	0.316							
kz			1				Phe	o		5	1	9	4			20	10	20	60	0.440		000	0	20	000	±0.317	000	000	000	000	±0.12							
00	[M	7.	7.	12		5-	noli	D		0	0	0	0		0.317	00	00	00	00	2±0.2		0	0	00	0	±0.317	0	0	000	0	06	26	25	27				
15	+H]	0	0	6.0	C6H	Hydroxym	c	e		0	0	0	0		9±0.2	0	0	0	0	012		0	0	0	0							60	40	00				
62	+	4	0	3	6O3	ethylfurfu	acid	e		0	0	0	0		362													2380	00	00	00	±0.344	11					
										s	p	-	0	0	0													000	0	0	0	1	01	--				
											1	1	1	1												1												
										Bi	10	1	2	2	1											3												
										o	54	4	9	0	4	40	45	43	40	0.115		134	2	14	139	0.3368	154	128	1290	146	0.209							
kz			4	3						D	71	0	0	0	0	30	90	70	90	6±0.0		000	0	90	000	±0.200	000	000	000	000	8±0.1							
00	[M	9.	7.	47	C23			e	-	0	0	0	0		0.196	00	00	00	00	837		0	0	0	0	8	0	0	000	0	636	67	11	11				
15	+H]	1	0	8.1	H26	Calceorios	Oth	e	98	0	0	0	0		8±0.0							0	0	0							1060	70	70	30				
81	+	5	6	5	O11	ide B	ers	p	-5	0	0	0	0		883													00	0	00	00	0.021±						
										Bi																						0.047	-	-				
										o	33	1	3	2	2																							
kz			3	8			Quercetin			D	06	7	0	8	3	50	68	59	78	0.001								286	338	3650	335	0.005						
00	[M	1.	7.	33	C17	-3',4'-	Flav	e	-	6	3	9	2		0.004	00	80	20	00	7±0.0								00	00	0	00	±0.00						
15	+H]	0	0	0.0	H14	dimethyl	onoi	e	29	0	0	0	0		1±0.0																	56						
84	+	8	5	7	O7	ether	ds	p	-4	0	0	0	0		105													-	-	-	-	-	-	-				
										Bi																												
										o		3	3	2	2											1												
kz			4	3						D		1	0	2	3	92	22	15	95	0.003		188	3	18	147	0.004±	106	995	1080	790	0.014							
00	[M	9.	7.	47	C22		Flav	e		4	0	7	2		0.004	20	10	70	20	8±0.0		00	2	70	00	0.0066	000	00	00	00	8±0.0							
15	+H]	1	0	8.1	H22	Isotamarix	onoi	e		0	0	0	0		4±0.0		0	0		171		0	0	0							234	1770	16	22	18			
86	+	2	6	1	O12	in	ds	p	-	0	0	0	0		102													00	00	00	00	4	-	-				
kz	[M	1	8	14	C7H	Stachydrin	Alka	Bi		9	9	8	8		0.146	10	98	10	10	0.276		397	3	44	409	0.0983	101	861	8300	893	0.135	4760	47	52	49			
00	+H]	4	4.	3.0	13N	e	loid	o	-	0	5	5	5		9±0.0	30	90	50	20	5±0.0		000	7	00	000	±0.069	000	000	00	000	4±0.1	00	80	10	20			
																																±0.029	01	--				

15	+	4.	1	9	O2		s	D	0	2	4	2	983	00	00	00	00	439		2	00		5		0				14		00	00	00	1		72	
98		1	0				e		0	0	0	0		0		0	0			0																	
		0					e		0	0	0	0								0																	
							p		0	0	0	0								0																	
							Bi													2																	
		2	1				Phe	o	2	2	2	2								0																	
kz		1	6				noli	D	6	6	7	9		44	32	35	33	0.009		226	2	23						0.061									
00	[M	3.	7.	21	C10		c	e	4	5	2	3	0.004	40	20	10	20	8±0.0		000	0	60	212	0.0532	414	419	4230	371	4±0.0			13	13	13			
16	+H]	0	0	2.0	H12	Oresbiusi	acid	e	0	0	0	0	5±0.0	0	0	0	0	152		0	0	00	000	±0.035	000	000	00	000	529		1260	70	80	70	0.028±		
37	+	8	7	7	O5	n A	s	p	-	0	0	0	0	032						0										00	00	00	00	0.0109	-	-	
							Bi																														
		3	2			5'-	Phe	o	4	3	3	4								3																	
kz		8	0			Glucopyra	noli	D	1	8	9	2		70	80	89	82	0.021		410	3	38						0.010									
00	[M	7.	7.	38	C18	nosyloxyja	c	e	3	8	8	2	0.006	90	10	40	20	8±0.0		00	2	60	451	0.0096	706	743	6620	629	3±0.0			15	13	14	0.0309		
16	-	1	1	8.1	H28	smanic	acid	e	0	0	0	0	7±0.0	0	0	0	0	194		0	0	0	00	±0.011	00	00	0	00	096		1570	40	70	50	±0.024		
42	H]-	7	0	7	O9	acid	s	p	-	0	0	0	0	056						0										00	00	00	00	3	-	-	
							Bi																														
		2	2			5,7,2'-		o	2	2	2	2								1																	
kz		9	8			Trhiyroxy-		D	7	9	4	6		13	16	16	17	0.004		214	6	19						0.007									
00	[M	9.	4.	30	C16	8-	Flav	e	0	5	7	1	0.004	80	50	70	10	3±0.0		00	3	80	203	0.0047	479	473	4430	525	2±0.0					0.0017			
16	-	0	0	0.0	H12	methoxyfl	onoi	e	0	0	0	0	4±0.0	0	0	0	0	04		0	0	0	00	±0.004	00	00	0	00	031			72	88	76	±0.001		
71	H]-	6	4	6	O6	avone	ds	p	-	0	0	0	0	037						0										9180	00	50	80	9	-	-	
							Bi																														
		3	2			6-		o																													
kz		2	6			hydroxy-		D																					0.005								
00	[M	9.	8.	32	C18	5,7,4'-	Flav	e																										C1			
16	+H]	1	0	8.0	H16	trimethox	onoi	e																										49			
80	+	0	8	9	O6	yflavone	ds	p	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85	--		
						Tetrameth		Bi																													
		3	2			ylluteolin		o																													
kz		4	9			(3',4',5,7-		D	7	8	7	8																									
00	[M	3.	9.	34	C19	Tetrameth	Flav	e	4	3	8	1	0.001																								
16	+H]	1	0	2.1	H18	oxyflavon	onoi	e	5	4	2	7	3±0.0																								
84	+	2	9	1	O6	e)	ds	p	-	0	0	0	0	003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
							Bi																														
		4	2					o	1	2	2	2																									
kz		6	8					D	8	0	2	3		66	69	56	57	0.001										0.002									
00	[M	1.	5.	46	C22		Flav	e	8	8	5	2	0.003	10	00	30	90	7±0.0										±0.00									
16	+H]	1	0	0.1	H20	wogonosi	onoi	e	0	0	0	0	5±0.0															19									
95	+	0	8	0	O11	de	ds	p	-	0	0	0	0	035						-	-	-	-	-	-	-	-		-	-	-	-	-	-			
kz	[M	4	2	46	C21	Kaempfer	Flav	Bi	6	6	6	6	0.010	27	25	18	26	0.006		354	3	31	349	0.8048	988	102	1020	108	0.154	8650	94	89	87	0.186±			
00	-	6	8	2.0	H18	ol-3-O-β-	onoi	o	-	2	3	3	9	7±0.0	30	10	10	50	6±0.0		000	0	30	000	±0.457	000	000	000	000	8±0.0	00	50	20	60	0.0718	-	-

17 02	H]-	1.07	5.4	8	O12	D-glucuroni de	ds	D e e p	0 0 0 0	6 0 0 0	6 0 0 0	2 0 0 0	068	0	0	0	0	116	0	9 0 0 0 0	00 0 0 0	0	1		0		0	388		00	00	00								
kz 00 17 06	[M +H] +	7.1	1.1	19	C11 H16 O3	Isololiolid e	Oth ers	Bi o D e e p	38 27 4- 00 -9	5 2 0	6 4 0	6 3 0	6 4 0	0.010 4±0.0 109		51 60 0	54 60 0	52 40 0	49 50 0	0.014 1±0.0 077	152 00 0	2 4 0 0	13 80 0	112 00	0.0032 ±0.004	992 00	984 00	9810 0	104 000	0.015 1±0.0 008		25 40	24 30	25 40	0.0526 ±0.027		-	-		
kz 00 17 10	[M +H] +	2.9	2.1	22	C15 H16 O2	Stilboste min B	Oth ers	Bi o D e e p	24 11 - 67 -8	1 3 5	1 5 8	1 2 7	1 3 0	0.002 3±0.0 022		96 90 0	66 00 0	11 00 0	88 00	0.002 4±0.0 048	610 0	5 4 3 0	73 10	481 0	0.0014 ±0.002 6	495 0	531 0	7630	640 0	0.000 9±0.0 019		48 60	61 70	62 10	±0.001 7		-	-		
kz 00 17 26	[M - H]-	1.4	7.3	81	C42 H68 O15	Prunellin A	Oth ers	Bi o D e e p	4 3 5 0 0	4 6 8	3 8 8	4 0 0	0.007 ±0.00 66			22 10 0	23 50 0	30 50 0	31 90 0	0.007 3±0.0 123	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
kz 00 17 39	[M +H] +	6.7	3.0	61	C28 H24 O16	Quercetin -3-O-(2''- galloyl)-β- D- glucoside Quercetin -3-O- (2'',3''- digalloyl)- β-D- glucopyra noside	Flav onoi ds	Bi o D e e p	9 1 9 1 1	1 0 0	3 0 0	3 0 0	0 0 0	0.167 4±0.1 563			35 00 0	33 50 00	33 30 00	35 20 00	0.092 7±0.0 254	147 00 0	6 6 0	12 90 0	580 0	0.003± 0.0116	196 000 0	196 000 0	2030 000	205 000 0	0.301 6±0.0 812		30 70	18 00	13 70	0.0047 ±0.017		-	-	
kz 00 17 40	[M +H] +	9.0	3.8	76	C35 H28 O20	Methyl Brevifolin carboxylat e	Flav onoi ds	Bi o D e e p	1 8 1 0 15	3 4 9	3 6 7	3 6 0	2 4 6	0.004 7±0.0 168			13 30 0	99 60	13 30 0	18 20 0	0.003 7±0.0 087	-	-	-	-	-		203 00	258 00	3560 0	412 00	0.004 6±0.0 135		18 60	13 60	16 90	0.0033 ±0.004		-	-
kz 00 17 42	[M - H]-	5.0	3.0	30	C14 H10 O8	Methyl Brevifolin carboxylat e	Oth ers	Bi o D e e	47 02 - 76	3 5 0	2 2 0	3 1 0	9 5 0	0.321 8±0.7 929		60 40 00	53 30 00	40 60 00	58 40 00	0.143 9±0.2 445	392 000 0	1 1 0 0	28 10 00	350 000	0.0871 ±0.14	323 000 0	323 000 0	2830 000	320 000 0	0.470 6±0.2 647		32 60	34 10	31 10	0.7081 ±0.690		-	-		

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

00	+H]	3	8	4.1	H22	ol-	onoi	o	0	3	1	5	2±0.0	20	40	00	60	3±0.0	00	0	00	00	±0.011	00	00	0	00	7±0.0	0	80	00	40	±0.003		
38	+	5.	7.	0	O14	malonyl-	ds	D	1	5	0	8	149	0	0	0	0	055		7	0		2				037		0	0		7			
11		1	0			3-O-		e	0	0	0	0								0															
		1	6			glucoside		e	0	0	0	0								0															
								p																											
								Bi																											
		5	3					o												8															
kz		6	1			Isorhamn		D	3	4	3	2		30	24	27	32	0.000		131	9	12	0.0026												
00	[M	5.	7.	56	C25	etin O-	Flav	e	8	8	7	7	0.000	10	30	80	30	8±0.0	008	00	0	40	±0.005	766	723	6110	736	0.001							
38	+H]	1	0	4.1	H24	malonylgl	onoi	e	9	6	4	3	6±0.0							0	0	0	5	0	0		0	1±0.0							
12	+	2	8	1	O15	ucoside	ds	p	-	0	0	0	0	017															-	-	-	-	-		
						Kaempfer																													
						ol 3-O-(6''-		Bi													7														
		5	2			trans-p-		o	3	3	2	2		17	16	18	19	0.004																	
kz		9	8			Coumaroy		D	2	6	3	5		00	50	10	00	8±0.0		939	4	93	0.0212	211	188	2300	257	0.033							
00	[M	5.	7.	59	C30	l)-β-D-	Flav	e	0	6	7	4	0.004	0	0	0	0	023		00	1	90	±0.021	000	000	00	000	3±0.0			34	49	28	0.0076	
38	+H]	1	0	4.1	H26	glucopyra	onoi	e	0	0	0	0	9±0.0								0								3550	00	10	30	±0.016		
15	+	4	5	4	O13	noside	ds	p	-	0	0	0	0	119															0	0	0	0	2	-	-
						Kampferol		Bi	16	1	1	1	1																						
		6	2			3-O-(6''-		o	95	4	8	9	3																						
kz		0	8			galloyl)-β-		D	65	4	1	3	9	65	59	55	52	0.015		126	9	10	0.0024	264	236	2400	322	0.039							
00	[M	1.	7.	60	C28	D-	Flav	e	-	0	0	0	0	0.027	0	20	90	10	8±0.0	00	9	30	±0.005	000	000	00	000	9±0.0							
38	+H]	1	0	0.1	H24	galactopyr	onoi	e	72	0	0	0	0	1±0.0					17		0	0	9												
21	+	2	6	1	O15	anoside	ds	p	-4	0	0	0	0	501															-	-	-	-	-	-	
						Kampferol		Bi	1	1	1	1																							
		6	2			3-O-(2''-		o	7	9	8	8																							
kz		0	8			galloyl)-β-		D	3	3	5	6		76	70	64	56	0.018																	
00	[M	1.	7.	60	C28	D-	Flav	e	0	0	0	0	0.030	10	20	50	00	1±0.0						241	243	2420	284	0.038							
38	+H]	1	0	0.1	H24	galactopyr	onoi	e	0	0	0	0	4±0.0	0	0	0	0	251						000	000	00	000	±0.02							
23	+	2	6	1	O15	anoside	ds	p	-	0	0	0	0	03						-	-	-	-	-					-	-	-	-	-	-	
										1	1	1																							
						Quercetin		Bi	9	0	0	1									1														
		6	3			3-O-(6''-		o	4	5	1	8		36	38	35	33	0.097		863	3	15	0.0032	210	193	2000	210	0.306							
kz		1	0			galloyl)-β-		D	7	0	0	0		10	90	80	80	9±0.0		0	9	90	±0.008	000	000	000	000	3±0.0							
00	[M	7.	3.	61	C28	D-	Flav	e	0	0	0	0	0.172	00	00	00	00	723			0	0	1	0	0	000	0	866			22	26	16	0.0049	
38	+H]	1	0	6.1	H24	galactopyr	onoi	e	0	0	0	0	8±0.1																2820	30	40	60	±0.010		
29	+	1	5	1	O16	anoside	ds	p	-	0	0	0	0	741															0	0	0	0	3	-	-
		7	3			Quercetin		Bi																											
		4	0			-O-		o																											
kz		3.	3.	74	C32	pentosyl-	Flav	D						66	69	78	75	0.002		149	9	20	0.0032												
00	[M	2	0	2.2	H38	O-	onoi	e						60	50	40	60	±0.00	13	00	6	10	±0.013												
38	+H]																																		
33	+	0	5	0	O20	rhamnosi	ds	e	-	-	-	-	-																0	0	0	00	7	-	-

00	+H]	3	3	4.3	H54	hawthorn	enoi	o	9	8	8	4	1±0.1	00	10	20	70	2±0.1	00	7	10	00	±0.025	000	000	000	000	9±0.3	00	00	30	10	±0.087			
38	+	5.	5.	9	O7	acid	ds	D	2	3	8	8	955	00	00	00	00	7		3	00			0	0		0	029		00	00	00	6			
60		3	3					e	0	0	0	0								0																
		9	2					e	0	0	0	0								0																
								p	0	0	0	0																								
								Bi																												
		6	4					o	8	9	8	8								1																
kz		6	0			3-O-Trans-		D	1	5	7	4		27	38	26	41	0.009		0	12		0.0031	420	478	4350	400	0.006								
00	[M	5.	9.	66	C40	feruloyl	Terp	e	3	1	2	6	0.014	70	00	00	40	±0.02	137	6	80	139	±0.003	00	00	0	00	5±0.0		17	14	17				
38	+H]	4	3	4.4	H56	euscaphic	enoi	e	0	0	0	0	4±0.0	0	0	0	0	07		0	0	00	3				065		2050	40	20	10	0.0036			
61	+	0	0	0	O8	acid	ds	p	-	0	0	0	0	062						0									0	0	0	0	±0.006	-	-	
						3β-		Bi	1	1	1	1																								
		4	1			Hydroxy-		o	0	1	0	0																								
kz		0	8			28-		D	1	7	3	5		22	27	26	28	0.070																		
00	[M	9.	7.	40	C29	norurs-	Terp	e	0	0	0	0	0.017	60	20	60	50	9±0.0																		
38	+H]	3	1	8.3	H44	17,19,21-	enoi	e	0	0	0	0	6±0.0	00	00	00	00	676																		
62	+	5	5	4	O	trien	ds	p	-	0	0	0	0	081						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
								Bi	7	8	7	8								2																
		4	4					o	7	7	3	8		11	11	10	12			3																
kz		5	0					D	6	1	7	3		30	30	90	80	0.313		223	6	23	238	0.0568	230	228	2300	238	0.349		13	13	12			
00	[M	5.	9.	45	C30		Terp	e	0	0	0	0	0.134	00	00	00	00	1±0.2	000	0	70	000	±0.024	000	000	000	000	±0.04		80	20	60	0.2781			
38	+H]	3	3	4.3	H46	Sanguisor	enoi	e	0	0	0	0	8±0.1	0	0	0	0	088		0	00	000			0	0		54		1390	00	00	00	±0.137		
63	+	5	5	4	O3	bigenin	ds	p	-	0	0	0	0	203						0										000	0	0	0	5	-	-
						Lup-12-		Bi																												
		5	2			en-		o	3	3	2	3		10	95	96	97	0.026																		
kz		0	3			15α,19β-		D	0	3	9	0		10	80	10	40	4±0.0							960	735	7860	911	0.001							
00	[M	1.	3.	50	C30	diol-3,11-	Terp	e	6	6	4	9	0.005	00	0	0	0	074							0	0		0	3±0.0		11	11	11	0.0238		
38	+H]	3	1	0.3	H44	dioxo-28-	enoi	e	0	0	0	0	1±0.0	00	0	0	0											014		1080	90	90	30	±0.007		
72	+	2	5	1	O6	oic acid	ds	p	-	0	0	0	0	027						-	-	-	-	-						00	00	00	00	7	-	-
								Bi																												
		3	1				Phe	o	1	4	2									6																
kz		4	8				noli	D	8	3	4	8		91	20	34	11	0.003		248	1	80	0.0125	588	522	5620	582	0.008								
00	[M	3.	1.	34	C15	Dihydroca	c	e	7	0	3	4	0.003	20	70	10	80	1±0.0	00	0	70	374	±0.062	00	00	0	00	5±0.0		69	71	71	0.0144			
39	-	1	0	4.1	H20	ffeoylgluc	acid	e	0	0	0	1	9±0.0					2			0		1				037		6600	30	10	20	±0.005			
46	H]-	0	5	1	O9	ose	s	p	-	0	0	0	0	281																0	0	0	0	2	-	-
								Bi	8	8	7	7																								
		2						o	3	1	8	3								8																
kz		2	9					D	6	9	3	0		37	47	53	60	0.134		890	3	87	0.0212	193	194	2180	202	0.030								
00	[M	5.	5.	22	C13			e	0	0	0	0	0.131	00	00	00	00	1±0.2	00	0	70	888	±0.003	000	000	00	000	4±0.0		11	10	81				
40	+H]	1	0	4.1	H20	Solatuber	Oth	e	0	0	0	0	±0.13					545			0		7				216		1290	60	30	00	0.0223			
13	+	5	8	4	O3	enol A	ers	p	-	0	0	0	0	18																00	00	00	0	±0.043	-	-
kz	[M	3	1	32	C15	Cis-p-	Oth	Bi	-	5	5	4	4	0.084	50	52	44	47	0.013	770	9	88	977	0.0215	283	298	2680	298	0.043	7410	94	95	10	0.0192	-	-

51	H]-	9.	7.	2	O11		c	D	8	7	3	3	719	00	00	00	00	763		2	00			0	0		0	99		00	0	0	7		
86		1	0				acid	e	0	0	0	0								0															
		1	6				s	e	0	0	0	0								0															
								p	0	0	0	0								0															
								Bi	3	3	3	3								1															
		4	2				Phe	o	0	4	5	4		13	12	14	13			1															
kz		4	8				noli	D	7	3	0	2		50	80	10	90	0.367		1	96														
00	[M	9.	7.	45	C21		c	e	0	0	0	0	0.055	00	00	00	00	1±0.0	112	2	50	113	0.0263	150	137	1560	154	0.225							
51	-	1	0	0.1	H22	Dunaliano	acid	e	0	0	0	0	4±0.0	0	0	0	0	996	000	0	0	000	3	0	0	000	0	±0.12		49	39	39			
87	H]-	1	6	2	O11	side B	s	p	-	0	0	0	0	252						0															
									2	2	2	3								6															
								Bi	8	9	9	0								3															
		5	2			Poncirin(Is	o	1	5	5	1			32	31	33	34	0.890	662	1	61	621	1.5387	187	183	1810	192	2.799							
kz		9	8			osakurane	D	0	0	0	0			50	70	00	50	5±0.2	000	0	80	000	±0.368	000	000	0000	000	9±0.1		10	10	99			
00	[M	3.	5.	59	C28	tin-7-	Flav	e	0	0	0	0	0.484	00	00	00	00	029	0	0	0	0	8	00	00	0000	00	837		20	50	10	2.1101	C0	
51	-	1	0	4.1	H34	neohespe	onoi	e	0	0	0	0	±0.15	0	0	0	0			0															
98	H]-	9	0	9	O14	ridoside)	ds	p	-	0	0	0	0	18						0															
						Hespereti		Bi	3	3	3	3								5															
		6	3			n 7-O-	o	4	5	2	3									6															
kz		0	0			neohespe	D	0	7	5	6			94	10	10	88	0.026	565	6	57	635	0.1425	106	104	1040	113	0.160							
00	[M	9.	1.	61	C28	ridoside(N	Flav	e	0	0	0	0	0.056	60	20	40	10	3±0.0	000	0	80	000	±0.079	000	000	000	000	9±0.0		78	76	73	0.1604	C0	
52	-	1	0	0.1	H34	eoheperi	onoi	e	0	0	0	0	1±0.0	0	00	00	0	217		0	00		1	0	0	000	0	18		7980	80	20	80	±0.068	98
00	H]-	8	0	9	O15	din)	ds	p	-	0	0	0	0	284						0															
								Bi												5															
		2	2				o	3	4	3	3									2															
kz		8	5				D	9	2	8	8			16	17	16	18	0.004	576	2	57														
00	[M	7.	9.	28	C15		Flav	e	4	4	0	9	0.006	0	0	0	0	7±0.0	000	0	30	535	0.1341	206	196	2080	215	0.031							
52	-	0	0	8.0	H12	Dihydroka	onoi	e	0	0	0	0	6±0.0	0	0	0	0	023		0	00	000	±0.058	000	000	00	000	1±0.0		19	20	20	0.0039	C0	
02	H]-	6	0	6	O6	empferol	ds	p	-	0	0	0	0	033						0															
								Bi												2															
		3	3				o	1	1	1	1									2															
kz		4	1			5,7,8,4'-	D	4	6	4	4			22	19	13	14	0.000	185	1	19	221	0.0005	246	266	2540	297	0.000							
00	[M	3.	3.	34	C19	Tetrameth	Flav	e	0	6	7	9	0.002	70	10	00	20	5±0.0	0	6	60	0	±0.000	0	0	2540	0	4±0.0							
52	+H]	1	0	2.1	H18	oxyflavon	onoi	e	0	0	0	0	5±0.0					013		0			5					002							
11	+	2	8	1	O6	e	ds	p	-	0	0	0	0	012						0															
								Bi												8															
		5	4			Luteolin 7-	o	27												9															
kz		9	4			O-	D	39	6	7	9	5		77	12	11	85	0.002	105	9	12	132	0.0271	110	126	1030	116	0.001							
00	[M	5.	9.	59	C27	neohespe	Flav	e	-	4	4	3	5	0.001	90	0	0	80	8±0.0	000	0	00	±0.043	00	00	0	00	7±0.0		20	25	19	0.0046	C1	
52	+H]	1	1	4.1	H30	ridoside(L	onoi	e	72	7	7	6	7	2±0.0					065		0		8					015		2470	30	50	00	±0.006	26
25	+	7	0	6	O15	onicerin)	ds	p	-2	0	0	0	0	033						0															
kz	[M	6	4	60	C28	Neodiosm	Flav	Bi	-	4	5	5	5	0.084	22	23	21	25	0.062	984	9	43	686	0.0018	574	220	2110	463	0.000	7450	62	67	59	0.0014	-

Table S2. List of the differential metabolites (DEMs) compared between pairwise species based on OPLS-DA analysis.

83			98		36		45		
kz0000			1.106		kz0053		1.080		
55	3,4,5-Trimethoxycinnamic acid	Phenolic acids	25	0.00173	77	lyoniresinol-9'-O-β-D-xylopyranoside	Lignans	50	0.00012
kz0005			1.105		kz0020		1.080		
96	β-D-Furanofructosyl-α-D-(6-mustard acyl)glucoside	Phenolic acids	92	0.00174	63	Galloyl-HHDP(Hexahydroxydiphenoyl)-glueopy ranose	Phenolic acids	49	0.00015
kz0045			1.105		kz0037		1.080		
96	Methyl neochebulagate	Others	37	0.00204	17	Maplexin C (2,3-Di-O-Galloyl-1,5-Anhydro-D-Glucitol)	Phenolic acids	23	0.00016
kz0022			1.106		kz0031		1.080		
95	(-)-Syringaresinol-4-O-β-D-monO-glucoside	Lignans	14	0.00232	03	Gemin D	Phenolic acids	48	0.00016
kz0029			1.105		kz0005		1.080		
81	Diosmetin-7-O-glucuronide	Flavones	98	0.00240	32	Protocatechuic acid-4-glucoside	Phenolic acids	46	0.00016
kz0045			1.103		kz0008		1.080	1325.0000	
95	Geraniin	Phenolic acids	26	0.00247	72	Myricetin	Flavonols	52	0
kz0031			1.105		kz0021		1.080		
04	Nobotanin D	Phenolic acids	46	0.00309	44	Angelicin	Coumarins	26	645.75000
kz0017			1.104		kz0037		1.080		
50	Tercatain	Phenolic acids	14	0.00314	55	Quercetin-3-sambubioside	Flavonols	16	580.50000
kz0029			1.105		kz0041		1.080		
75	Acacetin-7-O-glucuronide	Flavones	78	0.00374	72	Quercetin 3-O-β-D-xylopyranosyl(1→2)-β-D-galactopyranoside	Flavonols	49	518.25000
kz0013			1.104		kz0005		1.080		
07	Phthalic acid	Organic acids	19	0.00388	17	Sinapyl alcohol	Phenolic acids	18	483.50000
kz0005			1.105		kz0012		1.079		
75	3,5-Di-O-galloylshikimic acid	Phenolic acids	31	0.00414	84	Oxaloacetic acid	Organic acids	48	372.75000
kz0035			1.103		kz0018		1.079		
04	Geraniinic acid C	Phenolic acids	04	0.00446	64	vnilloylcaffeoyltartaric acid	Phenolic acids	82	263.00000
kz0037			1.105		kz0033		1.079		
97	3-Prenyl-4-O-β-D-glucopyranosyloxy-4-hydroxyl-benzoic acid	Phenolic acids	09	0.00506	62	Tubuloside C	Phenolic acids	98	174.42778
kz0008			1.102		kz0038		1.074		
86	Myricetin-3-O-α-L-arabinopyranoside	Flavonols	58	0.00598	33	Quercetin-O-pentosyl-O-rhamnoside-O-glucoside	Flavonols	73	133.65000
kz0005			1.105		kz0002		1.079		
02	Coniferaldehyde	Phenolic acids	55	0.00666	78	Indole 3-acetic acid (IAA)	Alkaloids	48	127.50000
kz0009			1.104		kz0010		1.077		
20	Quercetin-O-rutinoside-hexose	Flavonols	06	0.01014	14	1-Methylhistamine	Others	50	109.82500
kz0016			1.106		kz0031		1.075		
84	Tetramethyluteolin (3',4',5,7-Tetramethoxyflavone)	Flavones	20	0.01259	66	6-Hydroxy-7-methoxycoumarin	Coumarins	82	65.23669
kz0005			1.105		kz0007		1.079		
36	5-O-Galloylshikimic acid	Phenolic acids	55	0.02368	97	Tetahydroxy-flavone-7-O-β-D-glucuronide	Flavones	11	58.75706
kz0005			1.104		kz0017		1.080		
37	3-O-Galloylshikimic acid	Phenolic acids	49	0.02590	02	Kaempferol-3-O-β-D-glucuronide	Flavonols	18	51.27709
kz0005			1.105		kz0007		1.079		
05	Coniferyl alcohol	Phenolic acids	74	0.02829	98	Luteolin-7-O-glucuronide	Flavones	88	43.19751
kz0031	Clemaphenol A	Lignans	1.096	0.03618	kz0029	Scutellarin(Scutellarein-7-O-glucuronide)	Flavones	1.079	43.04054

47			78		76		34		
kz0010			1.101		kz0030		1.077		
76	Ethyl gallate	Phenolic acids	39	0.03892	98	3-O-Digalloyl quinic acid	Phenolic acids	59	35.59633
kz0010			1.100		kz0009		1.080		
74	Gallic acid	Phenolic acids	48	0.07032	06	Kaempferol-3-O-robinobioside(Biorobin)	Flavonols	34	29.82635
kz0005			1.105		kz0013		1.067		
77	Hexahydroxydiphenylglucose	Phenolic acids	29	0.08116	80	Quercetin-O-rutinoside-O-rhamnoside	Flavonols	34	29.42529
kz0020			1.093		kz0009		1.080		
63	Galloyl-HHDP(Hexahydroxydiphenyl)-glucose	Phenolic acids	72	0.08921	05	Kaempferol-3-O-rutinoside(Nicotiflorin)	Flavonols	34	28.62360
kz0031			1.092		kz0038		1.080		
03	Gemin D	Phenolic acids	89	0.09405	50	(-)-secoisolaricresinol 4-O-β-D-glucopyranoside	Lignans	09	28.31001
kz0040			1.104		kz0036		1.074		
15	Cis-p-coumaric acid 4-O-glucoside	Others	95	0.09540	93	Quercetin-3-O-(2-O-α-L-rhamnopyranosyl)-β-D-galactopyranoside	Flavonols	51	22.94023
kz0025			1.102		kz0041		1.077		
48	p-Coumaric acid-O-glycoside	Phenolic acids	14	0.09823	71	Kaempferol 3-O-β-D-neohesperidoside	Flavonols	11	22.46246
km053			1.094		kz0047		1.079		
2	Delphinidin 3-glucoside (Mirtillin)	Anthocyanins	39	0.09850	03	secoisolaricresinol 9-O-β-D-glucopyranoside	Lignans	58	22.30068
kz0037			1.100		kz0029		1.073		
48	7'-O-Sinapoyljasminoside L	Terpenoids	89	0.10582	90	Luteolin-7-O-rutinoside	Flavones	96	18.86159
kz0005			1.092		kz0009		1.064		
07	Syringic Aldehyde	Phenolic acids	22	0.11032	07	Kaempferol-3-O-glucoside-7-O-rhamnoside	Flavonols	98	16.07401
kz0052			1.093		kz0052		1.072		
11	5,7,8,4'-Tetramethoxyflavone	Flavones	68	0.11462	25	Luteolin 7-O-neohesperidoside(Lonicerin)	Flavones	51	15.46588
kz0009			1.105		kz0025		1.061		
15	6-Hydroxykaempferol-7,6-O-Diglucoside	Flavonols	26	0.11748	60	6-O-feruloyl-α-glucose	Phenolic acids	01	14.36250
kz0013			1.099		kz0005		1.079		
12	Shikimic acid	Organic acids	24	0.12020	05	Coniferyl alcohol	Phenolic acids	73	14.20085
kz0031			1.095		kz0052		1.080		
06	Cuspinin	Phenolic acids	99	0.12741	02	Dihydrokaempferol	Flavanols	01	13.90044
kz0037			1.097		kz0031		1.078		
16	2,4-Di-O-Galloyl-1,5-Anhydro-D-Glucitol;(Maplexin D)	Phenolic acids	41	0.13066	51	Ailantinal E	Others	81	13.51201
kz0000			1.092		kz0038		1.072		
52	Ethyl 3,4-Dihydroxybenzoate (Ethyl protocatechuate)	Phenolic acids	67	0.13488	09	Sieboldin	Chalcones	36	12.44489
kz0007			1.098		kz0009		1.079		
03	Delphinidin-3-O-glucoside (Mirtillin)	Anthocyanins	65	0.13499	12	Isorhamnetin-3-O-rutinoside (Narcissin)	Flavonols	81	11.63443
kz0004			1.104		kz0037		1.073		
91	p-Coumaric acid	Phenolic acids	64	0.14848	97	3-Prenyl-4-O-β-D-glucopyranosyloxy-4-hydroxyl-benzoic acid	Phenolic acids	60	11.37975
kz0005			1.074		kz0005		1.070		
30	Brevifolin carboxylic acid	Phenolic acids	20	0.15421	92	Rosmarinyl Glucoside	Phenolic acids	59	11.18904
kz0025			1.088		kz0011		1.072		
54	p-Hydroxycinnamic acid	Phenolic acids	99	0.15795	13	Lumichrome	Alkaloids	57	11.05833
kz0000	2-(Formylamino)benzoic acid	Phenolic acids	1.103	0.15923	kz0027	Sexangularetin 3-glucoside-7-rhamnoside	Flavonols	1.067	11.04457

49			33		88		65		
kz0030			1.078		kz0007		1.078		
98	3-O-Digalloyl quinic acid	Phenolic acids	03	0.16514	91	Apigenin 7-O-glucoside(Cosmosiin)	Flavones	83	10.39837
kz0000			1.064		kz0021			1.072	
66	Feruloyl syringic acid	Phenolic acids	16	0.16592	96	2'-Hydoxy,5-methoxy Genistein-O-rhamnosyl-glucoside	Isoflavones	41	9.87071
kz0037			1.099		kz0007			1.076	
19	Methyl 4,6-di-O-galloyl-D-glucoside	Phenolic acids	86	0.16675	92	Apigenin 5-O-glucoside	Flavones	29	9.69072
kz0008			1.102		km060			1.073	
41	Luteolin-O-sinapoylhexoside	Flavones	36	0.16868	2	Genistein 7-O-Glucoside (Genistin)	Isoflavones	55	9.38185
kz0005			1.098		kz0050			1.074	
04	Caffeic acid	Phenolic acids	85	0.17278	55	Galangin-7-glucoside	Flavones	58	9.24528
kz0053			1.103		kz0009			1.077	
70	(+)-Isolariciresinol	Lignans	68	0.17797	08	Quercetin-3-O-robinobioside	Flavonols	96	8.35443
kz0037			1.092		kz0001			1.078	
17	Maplexin C (2,3-Di-O-Galloyl-1,5-Anhydro-D-Glucitol)	Phenolic acids	11	0.17833	90	Arbutin	Others	08	8.18991
kz0046	7S,8R-threo-3',9,9'-trihydroxy-3-methoxy-4',7-epoxy-neolignan-4-O- α -		1.099		kz0016			1.079	
98	L-rhamnopyranoside	Lignans	77	0.18070	37	Oresbusin A	Phenolic acids	12	8.00731
kz0010			1.103		kz0009			1.078	
75	Methyl gallate	Phenolic acids	24	0.18342	09	Quercetin-3-O-rutinoside (Rutin)	Flavonols	64	7.66157
kz0009			1.094		kz0005			1.080	
14	6-Hydroxykaempferol-3,6-O-Diglucoside	Flavonols	35	0.18419	57	Glucosyringic Acid	Phenolic acids	25	7.63619
kz0047			1.102		kz0026			1.078	
38	4,7,9,9'-Tetrahydroxy-3,3'-dimethoxy-8-O-4'-neolignan	Others	28	0.18652	04	Kaempferol-3-O-(6''-acetyl)-glucoside	Flavonols	37	7.05004
kz0026			1.098		kz0041			1.073	
78	Quercetin-3-O-(6''-O-acetyl)-galactoside	Flavonols	20	0.19369	73	Quercetin 3-O-neohesperidoside	Flavonols	90	6.88296
kz0009			1.104		kz0011			1.077	
95	Syringaresinol	Lignans	26	0.19482	58	D-Pantothenic Acid	Vitamins	73	6.43132
kz0004			1.087		kz0009			1.077	
84	Vanillin	Phenolic acids	64	0.20000	11	Quercetin-7-O-rutinoside	Flavonols	55	6.37064
km111			1.095		kz0005			1.079	
3	5-O-p-Coumaroyl shikimic acid	Phenolic acids	34	0.20752	40	3,4,5-Trimethoxyphenyl- β -D-Glucopyranoside	Phenolic acids	71	5.98788
kz0020			1.098		kz0022			1.071	
08	3,5,7,4'--Tetrahydroxy-Coumaronochromone	Others	32	0.20808	95	Syringaresinol-4'-O- β -D-monO-glucoside	Lignans	96	5.97214
kz0008			1.100		kz0025			1.077	
64	Kaempferol	Flavonols	31	0.21028	46	Isosalicylic acid O-glycoside	Phenolic acids	69	5.56543
kz0007			1.085		kz0040			1.065	
00	Cyanidin-3-O-glucoside (Kuromanin)	Anthocyanins	45	0.21412	35	3-Indoleacrylic acid	Alkaloids	07	5.52196
kz0053			1.090		kz0037			1.067	
76	5'-methoxysolariciresinol-9'-O- β -D-xylopyranoside	Lignans	68	0.21692	94	Syringic Aldehyde-glucoside	Phenolic acids	16	5.13809
kz0051			1.095		kz0025			1.075	
37	Isoscopoletin	Coumarins	04	0.22403	56	4-O-glucosyl-4-hydroxybenzoic acid	Phenolic acids	43	5.01519
kz0046	5,7,3',4',5'-pentahydroxydihydroflavone	Flavanones	1.090	0.22663	kz0002	Citramalate	Organic acids	1.074	4.71366

65			71		96		03		
kz0037			1.104		kz0005		1.070		
14	6-O-Galloylglucose	Phenolic acids	43	0.23063	02	Coniferaldehyde	Phenolic acids	93	4.65391
kz0034			1.105		kz0004		1.078		
97	3-O-Galloyl-β-D-glucose	Phenolic acids	90	0.23135	12	Aucubin	Terpenoids	14	4.57824
kz0031			1.105		kz0024		1.058		
00	5-O-Galloylhamamelose	Phenolic acids	20	0.23149	85	3-methoxy-juglone	Quinones	75	4.44034
kz0006			1.066		kz0035		1.064		
98	Cyanidin-3-O-galactoside	Anthocyanins	56	0.23273	17	Glucosyloxybenzoic acid	Phenolic acids	19	4.19065
kz0004			1.104		kz0005		1.075		
24	Eriodictyol	Flavanones	14	0.23327	33	2,5-Dihydroxy benzoic acid O-hexside	Phenolic acids	60	4.04869
kz0005			1.102		kz0011		1.077		
73	p-Coumaroylferuloyltartaric acid	Phenolic acids	89	0.23624	63	Riboflavin	Vitamins	40	3.97904
kz0000			1.101		kz0004		1.075		
40	N,N'-Bis(Sinapoyl)Spermidine	Alkaloids	80	0.23754	66	4-Hydroxybenzaldehyde	Phenolic acids	08	3.93175
kz0009			1.104		kz0009		1.076		
92	Pinoresinol	Lignans	40	0.23880	73	Epigallocatechin (EGC)	Flavanols	12	3.60094
kz0022			1.104		kz0009		1.068		
19	Epipinoresinol	Lignans	44	0.24796	74	Gallocatechin	Flavanols	22	3.36138
kz0008			1.103		kz0038		1.046		
92	6-Hydroxykaempferol-7-O-glucoside	Flavonols	95	0.24889	15	Kaempferol 3-O-(6''-trans-p-Coumaroyl)-β-D-glucopyranoside	Flavonols	55	2.96432
kz0047			1.056		kz0034		1.076		
03	secoisolariciresinol 9-O-β-D-glucopyranoside	Lignans	03	0.24954	98	2-O-Galloyl-β-D-glucose	Phenolic acids	91	2.94830
kz0015			1.065		kz0010		1.076		
84	Quercetin-3',4'-dimethyl ether	Flavonols	24	0.25600	20	4-Methyl-5-thiazoleethanol	Others	97	2.94695
kz0022			1.105		kz0013		1.075		
14	isohyperoside	Flavonols	19	0.25660	40	Procyanidin C2	Proanthocyanidins	47	2.91212
kz0011			1.095		kz0005		1.075		
75	Esculetin	Coumarins	71	0.25774	42	1-O-Galloyl-β-D-glucose	Phenolic acids	49	2.86242
kz0031			1.097		kz0038		1.009		
08	mlyricetin 3-O-B-D-glucopyranoside	Flavonols	46	0.25832	12	Isorhamnetin O-malonylglucoside	Flavonols	20	2.81997
kz0004			1.102		kz0026		1.075		
96	Vanillic acid	Phenolic acids	79	0.25852	78	Quercetin-3-O-(6''-O-acetyl)-galactoside	Flavonols	90	2.61980
km007			1.103		kz0000		1.071		
1	Quercetin 3-O-galactoside (Hyperin)	Flavonols	60	0.25922	66	Feruloyl syringic acid	Phenolic acids	87	2.58701
kz0006			1.086		kz0005		1.022		
13	1,2,3,6-Tetra-O-Galloyl-β-D-Glucose	Phenolic acids	41	0.26009	00	Riboprine	Phenolic acids	73	2.53374
kz0005			1.015		kz0025		1.060		
52	4-O-Caffeoyl quinic acid (criptochlorogenic acid)	Phenolic acids	31	0.26067	52	Sinapic acid-glycoside	Phenolic acids	92	2.51813
km022			1.102		km054		1.079		
8	Quercetin 3-O-glucoside (Isotrifoliin)	Flavonols	75	0.26863	8	Dihydroquercetin (Taxifolin)	Flavonols	10	2.47179
km081	Morin	Flavonols	1.105	0.26893	kz0011	Esculin(6,7-DihydroxyCoumarin-6-glucoside)	Coumarins	1.023	2.40571

4			68		88		08		
km032			1.100		kz0000		1.078		
9	3-(4-Hydroxyphenyl)propionic acid	Phenolic acids	13	0.26950	56	Salicylic acid glucoside	Phenolic acids	10	2.35668
kz0004			1.099		kz0028		1.077		
95	3-(4-Hydroxyphenyl)-propionic acid	Phenolic acids	66	0.26953	62	Dihydrosedinine	Alkaloids	36	2.26505
kz0017			1.063		km143		1.047		
42	Methyl Brevifolincarboxylate	Others	41	0.27165	7	p-Aminobenzoate	Phenolic acids	33	2.22180
kz0025			1.098		kz0002		1.070		
57	4-O-glucosyl-3,4-dihydroxybenzyl alcohol	Phenolic acids	66	0.27574	40	Trans-Zeatin-9-N-Glucoside	Alkaloids	23	2.21678
kz0012			1.104		kz0053		1.060		
81	Citraconic acid	Organic acids	70	0.27993	78	5'-methoxyisolariciresinol-9'-O-β-D-glucopyranoside	Lignans	73	2.17773
km081			1.084		kz0009		1.068		
8	Myricetin 3-O-rhamnoside (Myricitrin)	Flavonols	93	0.28405	04	Tiliroside	Flavonols	81	2.16624
kz0000			1.102		kz0051		1.078		
53	Isoferulic Acid	Phenolic acids	24	0.28487	98	Poncirin(Isosakuranetin-7-neohesperidoside)	Flavanones	10	2.16041
kz0030			1.103		kz0011		1.053		
99	Di-O-Glucose-quinic acid	Phenolic acids	96	0.28567	99	Indole-3-carboxaldehyde	Alkaloids	60	2.14719
kz0052			1.102		kz0013		1.048		
00	Hesperetin 7-O-neohesperidoside(Neohesperidin)	Flavanones	39	0.28623	08	D-Xylonic acid	Organic acids	95	2.12523
kz0016			1.096		kz0051		1.071		
95	wogonoside	Flavones	26	0.29226	32	Luteolin-caffeoyl-O-rhamnoside	Flavones	54	2.11612
km126			1.104		kz0031		1.056		
9	Di-O-methylquercetin	Flavonols	23	0.29287	09	Mearnsitrin	Flavones	61	2.09911
kz0011			1.093		kz0005		1.065		
84	Skimmin	Coumarins	58	0.29456	15	Sinapinaldehyde	Phenolic acids	90	2.08977
km054			1.100		kz0025		1.058		
8	Dihydroquercetin (Taxifolin)	Flavonols	37	0.29535	57	4-O-glucosyl-3,4-dihydroxybenzyl alcohol	Phenolic acids	75	2.06623
kz0050			1.076		kz0046		1.076		
46	Dihydrokaempferol-3-O-β-D-glucoside	Flavanols	06	0.29552	78	Annuionone D	Others	08	2.06279
kz0047			1.100		kz0013		1.055		
35	Ligraminol E	Others	45	0.29897	12	Shikimic acid	Organic acids	14	0.48580
kz0053			1.087		km121		1.022		
73	Lyoniresinol	Lignans	08	0.29915	1	Chrysoeriol 7-O-hexoside	Flavones	71	0.47626
kz0053			1.101		kz0002		1.080		
77	lyoniresinol-9'-O-β-D-xylopyranoside	Lignans	51	0.30052	01	D-galacitol	Others	02	0.47400
kz0012			1.094		kz0008		1.075		
85	2-Methylsuccinic acid	Organic acids	31	0.30138	89	Spiraeoside	Flavonols	84	0.47048
kz0053			1.094		kz0004		1.076		
89	Byzantionoside A	Others	10	0.30241	41	Hesperetin 5-O-glucoside	Flavanols	49	0.46202
kz0029			1.102		kz0008		1.070		
33	Ixerin D	Terpenoids	07	0.30375	00	Chrysoeriol-5-O-hexoside	Flavones	56	0.45729
km064	Hesperetin 7-rutinoside (Hesperidin)	Flavanones	1.091	0.30467	kz0015	Stachydrine	Alkaloids	1.070	0.45475

0			03		98		83		
kz0033			1.061		kz0046		1.062		
70	Swertiamarin	Terpenoids	11	0.30468	97	Taxifolin-3'-O-β-D-glucoside	Flavones	19	0.45427
kz0022			1.100		kz0002			1.032	
21	Eucommin A	Lignans	02	0.30479	59	Thiamine	Vitamins	41	0.45184
kz0005			1.101		kz0012			1.064	
11	Ferulic acid	Phenolic acids	54	0.30875	85	2-Methylsuccinic acid	Organic acids	32	0.45123
km129			1.099		kz0029			1.063	
3	Hesperetin O-malonylhexoside	Flavanones	61	0.31119	77	Diosmetin-7-O-galactoside	Flavones	75	0.44965
km130			1.093		kz0005			1.032	
7	Isorhamnetin 5-O-hexoside	Flavonols	60	0.31510	96	β-D-Furanofructosyl-α-D-(6-mustard acyl)glucoside	Phenolic acids	79	0.44759
kz0036			1.095		kz0052			1.064	
90	Quercetin-3-O-α-L-rhamnopyranoside	Flavonols	11	0.32333	47	Limonin	Others	94	0.44677
kz0038			1.100		km025			1.076	
48	Cinchonain Ic	Flavanols	72	0.32438	8	(+)-cis,trans-Absciscic acid (ABA)	Others	78	0.43955
kz0050			1.015		kz0017			1.038	
37	Caffeoylferuloylshikimic?acid	Phenolic acids	54	0.33252	10	Stilbostemin B	Others	25	0.42844
kz0004			1.076		km126			1.074	
17	Phloretin	Chalcones	39	0.33271	9	3,7-Di-O-methylquercetin	Flavonols	49	0.42691
kz0050			1.099		kz0012			1.063	
88	Tricetin?4'-methyl?ether-3'-O-β-D-glucoside	Flavonols	63	0.33279	92	4-Acetamidobutyric acid	Organic acids	11	0.42113
kz0008			1.100		kz0030			1.072	
12	Tricin O-saccharic acid	Flavones	58	0.33559	38	3-O-(2-O-Acetyl-β-D-glucopyranosyl) oleanolic acid	Terpenoids	05	0.41982
kz0017			1.097		kz0005			1.058	
39	Quercetin-3-O-(2''-galloyl)-β-D-glucoside	Flavonols	73	0.33727	39	3-Hydroxy-4-isopropylbenzylalcohol 3-glucoside	Phenolic acids	76	0.41242
kz0023			1.063		kz0029			1.069	
67	Methyl dioxindole-3-acetate	Others	18	0.33733	10	Parthenolide	Terpenoids	96	0.38817
kz0029			1.089		kz0010			1.046	
76	Scutellarin(Scutellarein-7-O-glucuronide)	Flavones	01	0.33953	32	N-Acetyl-D-galactosamine	Others	64	0.38754
kz0003			1.091		kz0008			1.070	
10	Pyruvic acid	Organic acids	78	0.34171	88	Quercetin-3-O-β-D-Galactoside (Hyperin)	Flavonols	94	0.38250
kz0028			1.068		kz0012			1.070	
07	Dimethylmalonic acid	Organic acids	27	0.34427	79	L-Homoserine	Organic acids	98	0.37917
kz0038			1.097		kz0004			1.075	
29	Quercetin 3-O-(6''-galloyl)-β-D-galactopyranoside	Flavonols	32	0.34535	79	Cinnamic acid	Phenolic acids	49	0.37014
kz0013		Proanthocyani	1.101		kz0010			1.079	
35	Procyanidin B1	dins	16	0.34613	91	Euscaphic acid	Terpenoids	62	0.36789
kz0041			1.104		kz0003			1.065	
70	Rhamnetin 3-O-β-D-Glucoside	Flavonols	87	0.34947	10	Pyruvic acid	Organic acids	39	0.36477
kz0001			1.099		kz0005			1.040	
47	Methylquercetin O-hexoside	Flavonols	10	0.35082	55	1-Caffeoylquinic acid	Phenolic acids	29	0.36258
kz0005	3,4-Dimethoxycinnamic acid	Phenolic acids	1.099	0.35137	kz0026	Eriodictyol-O-glucoside	Flavones	1.075	0.36000

14			32		73		47
kz0029			1.102		kz0005		1.046
82	6-methoxykaempferol-3-O-glucoside	Flavonols	58	0.35328	44	3-O-p-Coumaroyl quinic acid	Phenolic acids 15 0.35473
kz0037			1.065		kz0035		1.070
18	2,3-Di-O-Galloyl-D-Glucose	Phenolic acids	28	0.35390	40	Dihydrokaempferol-7-O-glucoside	Flavonols 65 0.35232
kz0038			1.079		kz0004		1.046
21	Kampferol 3-O-(6''-galloyl)-β-D-galactopyranoside	Flavonols	52	0.35449	17	Phloretin	Chalcones 33 0.34673
kz0013			1.083		kz0010		1.052
08	D-Xylonic acid	Organic acids	82	0.35462	25	D-Glucurono-6,3-lactone	Others 24 0.34432
kz0004			1.097		kz0047		1.077
12	Aucubin	Terpenoids	02	0.35575	74	(2R)-Pinocembrin-7-neohesperidoside	Flavanones 02 0.33915
kz0028			1.082		kz0000		1.071
29	Isorhamnetin-7-O-glucoside	Flavonols	90	0.35596	70	Anthranilate O-hexosyl-O-hexoside	Phenolic acids 41 0.33691
kz0015			1.101		kz0037		1.036
81	Calceorioside B	Others	06	0.35807	21	Maplexin G	Phenolic acids 49 0.33227
kz0050			1.092		kz0002		1.063
79	Kaempferol-4'-O-β-D-glucopyranoside	Flavonols	11	0.35862	94	2-Hydroxyisocaproic acid	Organic acids 05 0.32836
km140			1.089		kz0051		1.074
5	Nicotinic acid-hexoside	Vitamins	65	0.36025	87	Dunalianoside B	Phenolic acids 45 0.32303
kz0013		Proanthocyanidins	1.100		kz0028		1.075
32	Procyanidin B2		45	0.36027	53	Dihydroisopelletierine	Alkaloids 93 0.32101
kz0008			1.100		kz0012		1.076
88	Quercetin-3-O-β-D-Galactoside (Hyperin)	Flavonols	78	0.36034	68	2-Furanoic acid	Organic acids 69 0.31792
kz0013		Proanthocyanidins	1.101		kz0006		1.023
33	Procyanidin B3		56	0.36107	98	Cyanidin-3-O-galactoside	Anthocyanins 34 0.31296
kz0026			1.082		kz0037		1.025
04	Kaempferol-3-O-(6''-acetyl)-glucoside	Flavonols	76	0.36176	93	Dihydromyricetin-O-glucoside	Flavanols 85 0.31035
kz0038			1.090		kz0041		1.076
23	Kampferol 3-O-(2''-galloyl)-β-D-galactopyranoside	Flavonols	89	0.36201	33	L-Ascorbic acid	Vitamins 52 0.30850
kz0002			1.087		kz0009		1.073
93	Glutaric acid	Organic acids	97	0.36568	15	6-Hydroxykaempferol-7,6-O-Diglucoside	Flavonols 67 0.30565
kz0009			1.010		km022		1.080
23	6-Hydroxykaempferol-3,6-O-Diglucoside-7-O-Glucuronic Acid	Flavonols	82	0.36753	8	Quercetin 3-O-glucoside (Isotrifoliin)	Flavonols 05 0.30417
kz0031			1.085		kz0022		1.079
51	Ailantinol E	Others	20	0.37079	14	isohyperoside	Flavonols 83 0.29816
kz0037			1.063		km068		1.074
21	Maplexin G	Phenolic acids	36	0.37100	6	Kaempferol 3-O-rhamnoside (Kaempferin)	Flavonols 13 0.29358
kz0011			1.104		kz0009		1.000
56	Pyridoxine	Vitamins	00	0.37118	23	6-Hydroxykaempferol-3,6-O-Diglucoside-7-O-Glucuronic Acid	Flavonols 44 0.29276
kz0007			1.068		kz0004		1.073
98	Luteolin-7-O-glucuronide	Flavones	35	0.37120	87	2,5-Dihydroxybenzoic acid	Phenolic acids 40 0.28956
kz0005	3,4,5-Trimethoxyphenyl-β-D-Glucopyranoside	Phenolic acids	1.103	0.37131	kz0008	6-Hydroxykaempferol-7-O-glucoside	Flavonols 1.077 0.28914

40			09		92		69		
kz0012			1.103		kz0042		1.073		
97	(Rs)-Mevalonic acid	Organic acids	81	0.37167	33	Terminolic acid	Terpenoids	07	0.28813
kz0041			1.086		kz0038			1.076	
69	Isorhamnetin 3-O-β-D-Glucoside	Flavonols	88	0.37252	63	Sanguisorbigenin	Terpenoids	05	0.28589
kz0017			1.075		kz0031			1.074	
02	Kaempferol-3-O-β-D-glucuronide	Flavonols	07	0.37539	08	mlyricetin 3-O-B-D-glucopyranoside	Flavonols	62	0.28580
kz0038			1.060		km007			1.077	
61	3-O-Trans-feruloyl euscaphic acid	Terpenoids	84	0.38225	1	Quercetin 3-O-galactoside (Hyperin)	Flavonols	64	0.28473
kz0008			1.097		kz0011			1.072	
00	Chrysoeriol-5-O-hexoside	Flavones	57	0.38358	84	Skimmin	Coumarins	96	0.28132
kz0008			1.096		kz0007			1.020	
84	Kaempferol-3-O-glucoside (Astragalin)	Flavonols	36	0.38464	00	Cyanidin-3-O-glucoside (Kuromanin)	Anthocyanins	94	0.27875
kz0036			1.077		km081			1.078	
36	Plantainoside A	Phenolic acids	43	0.38692	4	Morin dihydrate	Flavonols	65	0.27494
kz0009			1.103		kz0031			1.028	
78	Catechin-(7,8-bc)-4β-(3,4-dihydroxyphenyl)-dihydro-2-(3H)-pyranone	Flavanols	10	0.38800	16	2,4,6-trihydroxy benzoic acid	Organic acids	01	0.27070
kz0002			1.097		kz0004			1.075	
58	Nicotinate D-ribonucleoside	Vitamins	54	0.38914	89	Protocatechuic acid	Phenolic acids	60	0.26909
kz0008			1.087		kz0013			1.076	
66	Quercetin	Flavonols	10	0.39025	02	2,3-Dihydroxybenzoic Acid	Organic acids	89	0.26813
kz0010			1.102		kz0000			1.078	
96	Choline	Alkaloids	16	0.39030	49	2-(Formylamino)benzoic acid	Phenolic acids	69	0.26803
kz0004			1.105		kz0025			1.075	
41	Hesperetin 5-O-glucoside	Flavanols	00	0.39111	54	p-Hydroxycinnamic acid	Phenolic acids	51	0.26639
kz0005			1.095		kz0004			1.069	
55	1-Caffeoylquinic acid	Phenolic acids	02	0.39318	40	Astilbin	Flavanols	12	0.26620
kz0000			1.065		kz0011			1.067	
32	Caffeoylagmatine	Alkaloids	44	0.39482	75	Esculetin	Coumarins	56	0.26272
kz0019			1.085		kz0030			1.077	
73	Kaempferol-3-O-(cinnamoyl)-sophoroside-7-O-glucose	Flavonols	53	0.39576	99	Di-O-Glucose-quinic acid	Phenolic acids	95	0.25974
kz0005			1.066		kz0050			1.066	
15	Sinapinaldehyde	Phenolic acids	57	0.39937	37	Caffeoylferuloylshikimic?acid	Phenolic acids	28	0.25718
kz0008			1.103		kz0020			1.051	
89	Spiraeoside	Flavonols	29	0.40120	08	3,5,7,4'--Tetrahydroxy-Coumaronochromone	Others	41	0.25682
kz0009			1.101		kz0005			1.067	
79	Catechin-(7,8-bc)-4α-(3,4-dihydroxyphenyl)-dihydro-2-(3H)-pyranone	Flavanols	74	0.40159	48	Trans-3-O-p-coumaric quinic acid	Phenolic acids	15	0.25560
kz0007			1.077		kz0012			1.070	
95	Luteolin-7-O-glucoside(Cynaroside)	Flavones	90	0.40453	87	(S)-(-)-2-Hydroxyisocaproic acid	Organic acids	75	0.24349
kz0031			1.024		kz0004			1.078	
58	Ailanindole	Alkaloids	34	0.40462	24	Eriodictyol	Flavanones	24	0.24164
kz0005	Neochlorogenic acid(5-O-Caffeoylquinic acid)	Phenolic acids	1.075	0.40726	kz0011	Trigonelline	Alkaloids	1.078	0.24102

53			85		01		56	
kz0053			1.101		kz0004		1.066	
75	Isolariciresinol 9'-O-Glucoside	Lignans	50	0.40823	10	Sweroside	Terpenoids	47 0.24090
kz0050			1.101		kz0004		1.077	
78	Kaempferol-7-O-β-D-glucopyranoside	Flavonols	55	0.40937	91	p-Coumaric acid	Phenolic acids	10 0.23148
kz0046			1.088		kz0046		1.078	
97	Taxifolin-3'-O-β-D-glucoside	Flavones	59	0.40968	36	2α-hydroxypyraacrenic acid	Terpenoids	15 0.22649
kz0009			1.056		kz0005		1.077	
74	Gallocatechin	Flavanols	50	0.41000	77	Hexahydroxydiphenylglucose	Phenolic acids	56 0.21978
km068			1.093		kz0012		1.070	
6	Kaempferol 3-O-rhamnoside (Kaempferin)	Flavonols	33	0.41027	98	L-(+)-Tartaric acid	Organic acids	31 0.21813
kz0010			1.097		kz0026		1.067	
97	Betaine	Alkaloids	20	0.41856	87	Nortrachelogenin 4-O-β-D-glucoside	Lignans	04 0.21745
km068			1.102		kz0011		1.075	
3	Kaempferol 3-O-galactoside (Trifolin)	Flavonols	11	0.42220	56	Pyridoxine	Vitamins	41 0.21375
kz0007			1.059		kz0036		1.069	
97	Tetahydroxy-flavone-7-O-β-D-glucuronide	Flavones	13	0.42286	36	Plantainoside A	Phenolic acids	96 0.20950
km008			1.066		kz0017		1.070	
1	Genistein (4',5,7-Trihydroxyisoflavone)	Isoflavones	41	0.42395	06	Isololiolide	Others	91 0.20931
kz0047			1.102		kz0022		1.075	
71	Epicatechin glucoside	Flavanols	26	0.43593	20	Olivil-4'-O-β-D-glucoside	Lignans	66 0.20784
kz0009			1.081		kz0001		1.077	
97	Terpineol monO-glucoside	Lignans	55	0.43719	45	Formononetin	Isoflavones	91 0.20713
kz0005			1.099		kz0012		1.066	
01	Methyl p-coumarate	Phenolic acids	61	0.43878	89	Malic acid,D	Organic acids	09 0.19833
kz0052			1.100		kz0011		1.079	
02	Dihydrokaempferol	Flavanols	78	0.43919	54	Nicotinamide	Vitamins	61 0.19735
km023			1.070		kz0008		1.076	
5	Apigenin	Flavones	66	0.44050	64	Kaempferol	Flavonols	09 0.19324
km077			1.078		kz0047	2-Hydroxy-5,8,11,14,17-icosapentaenoyloxy]propyl-2-		1.079
9	Luteolin 7-O-glucoside	Flavones	29	0.44130	62	(trimethylammonio)ethyl phosphate	Alkaloids	11 0.19282
kz0038			1.103		kz0000		1.062	
49	dihydrodehydrodiconiferyl alcohol 4-O-β-D-glucopyranosides	Lignans	13	0.44269	40	N,N'-Bis(Sinapoyl)Spermidine	Alkaloids	11 0.18492
kz0012			1.093		kz0017		1.055	
93	4-Guanidinobutyric acid	Organic acids	66	0.44386	42	Methyl Brevifolincarboxylate	Others	67 0.18314
kz0026			1.081		kz0047		1.079	
87	Nortrachelogenin 4-O-β-D-glucoside	Lignans	51	0.44481	38	4,7,9,9'-Tetrahydroxy-3,3'-dimethoxy-8-O-4'-neolignan	Others	29 0.18172
kz0013		Proanthocyani	1.068		kz0038		1.076	
40	Procyanidin C2	dins	09	0.44676	54	Roseoside	Others	58 0.18128
kz0026			1.087		kz0047		1.057	
07	Lariciresinol glucopyranoside	Others	34	0.44802	35	Ligraminol E	Others	65 0.17814
kz0052	Neodiosmin (Diosmetin-7-O-Neohesperidoside)	Flavones	1.088	0.45097	kz0010	Oleanolic acid 2-O-β-D-glucopyranoside	Terpenoids	1.076 0.17808

26			17		93		16	
kz0005			1.088		kz0040		1.077	
32	Protocatechuic acid-4-glucoside	Phenolic acids	22	0.45271	15	Cis-p-coumaric acid 4-O-glucoside	Others	11 0.17325
kz0031			1.077		kz0031		1.079	
09	Mearnsitrin	Flavones	31	0.45788	00	5-O-Galloylhamamelose	Phenolic acids	52 0.16981
kz0037			1.055		kz0042		1.076	
28	Geniposide	Terpenoids	29	0.46158	31	Isothankunic acid	Terpenoids	05 0.16889
kz0011			1.099		kz0034		1.079	
55	Nicotinic acid	Vitamins	80	0.46408	97	3-O-Galloyl-β-D-glucose	Phenolic acids	75 0.16566
kz0009			1.100		kz0037		1.079	
71	Catechin	Flavanols	57	0.47079	14	6-O-Galloylglucose	Phenolic acids	18 0.16176
kz0005			1.089		kz0029		1.079	
12	Syringic acid	Phenolic acids	83	0.47510	33	Ixerin D	Terpenoids	20 0.16125
kz0008			1.096		kz0025		1.077	
31	Diosmin	Flavones	26	0.47734	48	p-Coumaric acid-O-glycoside	Phenolic acids	97 0.15936
kz0038			1.009		kz0046		1.024	
50	(-)-secoisolariciresinol 4-O-β-D-giucopyranoside	Lignans	39	0.48009	30	2α-hydroxyursolic acid	Terpenoids	79 0.15640
kz0018			1.048		kz0010		1.075	
80	feruloylsinapoyltartaric acid	Phenolic acids	87	0.48454	75	Methyl gallate	Phenolic acids	96 0.15308
kz0053			1.055		kz0005		1.077	
78	5'-methoxyisolariciresinol-9'-O-β-D-glucopyranoside	Lignans	67	0.48741	73	p-Coumaroylferuloyltartaric acid	Phenolic acids	82 0.15084
kz0004			1.080		kz0000		1.070	
14	2-Picolylamine	Alkaloids	22	0.48826	47	Mandelic acid	Phenolic acids	22 0.15004
kz0011			1.098		kz0038		1.075	
77	Scoparone	Coumarins	16	0.49726	60	Caffeoyl hawthorn acid	Terpenoids	19 0.14956
kz0025			1.050		kz0038		1.076	
52	Sinapic acid-glycoside	Phenolic acids	57	0.50000	61	3-O-Trans-feruloyl euscaphic acid	Terpenoids	12 0.14647
kz0012			1.102		kz0037		1.059	
87	(S)-(-)-2-Hydroxyisocaproic acid	Organic acids	01	2.01836	18	2,3-Di-O-Galloyl-D-Glucose	Phenolic acids	57 0.14229
kz0050			1.001		kz0005		1.077	
55	Galangin-7-glucoside	Flavones	99	2.02191	54	Chlorogenic acid	Phenolic acids	10 0.14008
kz0024			1.102		kz0011		1.073	
19	Ergotamine	Alkaloids	62	2.11346	77	Scoparone	Coumarins	00 0.13825
kz0009			1.096		kz0010		1.077	
09	Quercetin-3-O-rutinoside (Rutin)	Flavonols	23	2.11908	97	Betaine	Alkaloids	24 0.13799
kz0046			1.087		kz0005		1.075	
78	Annuionone D	Others	72	2.11921	04	Caffeic acid	Phenolic acids	73 0.13758
kz0021			1.071		kz0052		1.077	
96	2'-Hydoxy,5-methoxy Genistein-O-rhamnosyl-glucoside	Isoflavones	37	2.12483	11	5,7,8,4'-Tetramethoxyflavone	Flavones	94 0.13588
kz0001			1.104		km111		1.070	
45	Formononetin	Isoflavones	45	2.16086	3	5-O-p-Coumaroyl shikimic acid	Phenolic acids	54 0.13398
kz0001	Naringenin 7-O-glucoside (Prunin)	Flavanols	1.099	2.19231	kz0051	Camaldulenic acid	Terpenoids	1.077 0.13382

59			39		36		86	
kz0003			1.101		kz0009		1.078	
08	N-[-]-Jasmonoyl]-(-)-Isoleucine (JA-L-Ile)	Organic acids	76	2.22345	92	Pinoresinol	Lignans	79 0.13110
kz0029			1.095		kz0022		1.078	
10	Parthenolide	Terpenoids	93	2.25247	19	Epipinoresinol	Lignans	33 0.13095
kz0009			1.093		kz0003		1.077	
08	Quercetin-3-O-robinobioside	Flavonols	27	2.25738	04	(±)-jasmonic acid	Organic acids	61 0.12608
kz0009			1.099		kz0010		1.079	
05	Kaempferol-3-O-rutinoside(Nicotiflorin)	Flavonols	86	2.27341	90	Methoxyursolic acid	Terpenoids	41 0.12368
kz0009			1.098		kz0040		1.079	
06	Kaempferol-3-O-robinobioside(Biorobin)	Flavonols	83	2.27477	13	Solatuberenol A	Others	80 0.11026
kz0046			1.104		kz0037		1.071	
32	isoceanothic acid	Terpenoids	83	2.27504	67	Obtusilin	Terpenoids	57 0.10413
kz0027			1.059		km081		1.074	
88	Sexangularetin 3-glucoside-7-rhamnoside	Flavonols	82	2.29944	8	Myricetin 3-O-rhamnoside (Myricitrin)	Flavonols	40 0.09480
kz0007			1.075		kz0000		1.078	
92	Apigenin 5-O-glucoside	Flavones	41	2.40388	52	Ethyl 3,4-Dihydroxybenzoate (Ethyl protocatechuate)	Phenolic acids	15 0.09287
kz0029			1.077		kz0003		1.079	
60	Eupatilin	Flavones	31	2.45423	08	N-[-]-Jasmonoyl]-(-)-Isoleucine (JA-L-Ile)	Organic acids	10 0.08780
kz0038			1.091		kz0005		1.075	
62	3β-Hydroxy-28-norurs-17,19,21-trien	Terpenoids	52	2.46244	53	Neochlorogenic acid(5-O-Caffeoylquinic acid)	Phenolic acids	12 0.07352
kz0040			1.083		kz0037		1.073	
21	6-Deoxyfagomine	Alkaloids	77	2.49283	20	Maplexin H	Phenolic acids	39 0.07217
km087			1.079		kz0031		1.078	
9	Orotic acid	Vitamins	48	2.52743	47	Clemaphenol A	Lignans	42 0.06825
kz0009			1.088		kz0007		1.053	
12	Isorhamnetin-3-O-rutinoside (Narcissin)	Flavonols	45	2.56798	03	Delphinidin-3-O-glucoside (Mirtillin)	Anthocyanins	86 0.06728
kz0002			1.102		kz0038		1.070	
31	5-Aminolevulinate	Alkaloids	69	2.57224	21	Kampferol 3-O-(6"-galloyl)-β-D-galactopyranoside	Flavonols	31 0.05968
kz0042			1.103		kz0006		1.074	
33	Terminolic acid	Terpenoids	11	2.66464	13	1,2,3,6-Tetra-O-Galloyl-D-Glucose	Phenolic acids	03 0.05750
kz0047			1.087		kz0010		1.077	
56	N-Benzylmethylene isomethylamine	Alkaloids	88	2.66884	76	Ethyl gallate	Phenolic acids	89 0.05539
kz0005			1.105		kz0037		1.071	
84	5-O-p-Coumaroyl quinic acid O-hexoside	Phenolic acids	31	2.73214	19	Methyl 4,6-di-O-galloyl-D-glucoside	Phenolic acids	55 0.05475
kz0012			1.103		kz0053		1.076	
83	6-Aminocaproic acid	Organic acids	79	2.81845	89	Byzantionoside A	Others	86 0.05440
kz0029			1.097		kz0000		1.079	
62	Penduletin (5,4'-Dihydroxy-3,6,7-trimethoxyflavone)	Flavones	24	2.86255	55	3,4,5-Trimethoxycinnamic acid	Phenolic acids	89 0.04896
kz0042			1.091		km032		1.079	
63	Osthole	Coumarins	70	2.89337	9	3-(4-Hydroxyphenyl)propionic acid	Phenolic acids	87 0.04767
kz0000	3-O-p-Coumaroylshikimic acid	Phenolic acids	1.097	2.94171	kz0004	3-(4-Hydroxyphenyl)-propionic acid	Phenolic acids	1.077 0.04740

59			52		95		81		
kz0011			1.058		kz0046		1.080		
03	6-Hydroxynicotinic acid	Alkaloids	06	2.95274	32	isoceanothic acid	Terpenoids	22	0.04736
kz0007			1.096		kz0010		1.076		
91	Apigenin 7-O-glucoside(Cosmosiin)	Flavones	05	3.08682	74	Gallic acid	Phenolic acids	34	0.04474
kz0038			1.104		kz0009		1.080		
72	Lup-12-en-15 α ,19 β -diol-3,11-dioxo-28-oic acid	Terpenoids	40	3.13494	79	Catechin-(7,8-bc)-4 α -(3,4-dihydroxyphenyl)-dihydro-2-(3H)-pyranone	Flavanols	14	0.04322
kz0000			1.090		kz0009		1.080		
64	1-O-Feruloyl quinic acid	Phenolic acids	24	3.20162	78	Catechin-(7,8-bc)-4 β -(3,4-dihydroxyphenyl)-dihydro-2-(3H)-pyranone	Flavanols	29	0.03990
kz0042			1.099		km053		1.067		
31	Isothankunic acid	Terpenoids	16	3.28889	2	Delphinidin 3-O-glucoside (Mirtillin)	Anthocyanins	90	0.03570
kz0002			1.105		kz0012		1.078		
32	O-Phosphocholine	Alkaloids	49	3.30817	97	(Rs)-Mevalonic acid lithium salt	Organic acids	80	0.03552
km008			1.080		kz0001		1.078		
0	Biochanin A	Isoflavones	37	3.32088	56	7-O-Methyleriodictyol	Flavanols	70	0.03247
kz0011			1.070		kz0012		1.079		
13	Lumichrome	Alkaloids	03	3.32532	81	Citraconic acid	Organic acids	55	0.03035
kz0050			1.101		kz0029		1.079		
43	Scopoletin?Beta-D-Glucuronide	Coumarins	29	3.32968	62	Penduletin (5,4'-Dihydroxy-3,6,7-trimethoxyflavone)	Flavones	81	0.02909
kz0011			1.097		kz0001		1.079		
93	Prunetin	Isoflavones	55	3.68953	18	Sakuranetin	Flavones	64	0.02817
kz0026			1.104		km129		1.079		
73	Eriodictyol-O-glucoside	Flavones	05	4.02963	3	Hesperetin O-malonylhexoside	Flavanones	79	0.02731
kz0051			1.104		kz0038		1.079		
87	Dunalianoside B	Phenolic acids	12	4.04620	48	Cinchonain Ic	Flavanols	30	0.02639
kz0021			1.098		kz0008		1.076		
97	2'-Hydoxy,5-methoxy Genistein-4',7-O-diglucoside	Isoflavones	45	4.18234	30	Chrysoeriol-7-O-rutinoside	Flavones	88	0.02408
kz0035			1.101		kz0009		1.079		
40	Dihydrokaempferol-7-O-glucoside	Flavonols	08	4.33561	97	Terpineol mon-O-glucoside	Lignans	35	0.02299
kz0004			1.104		kz0022		1.072		
40	Astilbin	Flavanols	27	4.36173	21	Eucommin A	Lignans	55	0.02296
kz0004			1.105		kz0001		1.078		
79	Cinnamic acid	Phenolic acids	09	4.75933	97	E-3,4,5'-Trihydroxy-3'-glucopyranosylstilbene	Others	64	0.02156
kz0031			1.073		kz0029		1.079		
66	6-Hydroxy-7-methoxycoumarin	Coumarins	25	4.86834	60	Eupatilin	Flavones	12	0.01979
kz0012			1.100		kz0003		1.077		
61	γ -Aminobutyric acid	Organic acids	95	5.53141	06	Methyl jasmonate	Organic acids	58	0.01938
kz0005			1.096		kz0050		1.079		
48	Trans-3-O-p-coumaric quinic acid	Phenolic acids	30	6.45799	49	Salireposide	Phenolic acids	73	0.01919
kz0029			1.085		kz0008		1.078		
78	Pratensein 7-O-glucopyranoside	Flavones	37	7.47812	31	Diosmin	Flavones	96	0.01520
kz0022	Farrerol 7-O-glucoside	Flavanones	1.104	7.58551	kz0052	Neodiosmin (Diosmetin-7-O-Neohesperidoside)	Flavones	1.074	0.01459

02			34		26		07		
kz0003			1.105		kz0042		1.079		
04	(±)-jasmonic acid	Organic acids	51	7.75797	63	Osthole	Coumarins	77	0.01389
kz0003			1.095		kz0038			1.077	
06	Methyl jasmonate	Organic acids	81	8.51744	29	Quercetin 3-O-(6''-galloyl)-β-D-galactopyranoside	Flavonols	03	0.01271
kz0005			1.103		kz0016			1.080	
44	3-O-p-Coumaroyl quinic acid	Phenolic acids	76	9.88176	84	Tetramethyluteolin (3',4',5,7-Tetramethoxyflavone)	Flavones	43	0.01259
kz0001			1.104		kz0017			1.071	
18	Sakuranetin	Flavones	00	10.11972	39	Quercetin-3-O-(2''-galloyl)-β-D-glucoside	Flavonols	21	0.01231
kz0001			1.103		kz0029			1.076	
56	7-O-Methyleriodictyol	Flavanols	05	15.89286	78	Pratensein 7-O-glucopyranoside	Flavones	25	0.01061
kz0030			1.104		kz0019			1.080	
83	5,2'-Dihydroxy-7,8-dimethoxyflavone glycosides	Flavones	38	29.80000	73	Kaempferol-3-O-(cinnamoyl)-sophoroside-7-O-glucose	Flavonols	19	0.01046
kz0037			1.105		kz0022			1.080	
55	Quercetin-3-sambubioside	Flavonols	00	71.77500	02	Farrerol 7-O-glucoside	Flavanones	22	0.00894
kz0038			1.106		kz0021			1.080	
33	Quercetin-O-pentosyl-O-rhamnoside-O-glucoside	Flavonols	07	72.52500	97	2'-Hydoxy,5-methoxy Genistein-4',7-O-diglucoside	Isoflavones	08	0.00768
kz0041			1.102		kz0008			1.076	
72	Quercetin 3-O-β-D-xylopyranosyl™(1→2)-β-D-galactopyranoside	Flavonols	91	97.07500	86	Myricetin-3-O-arabinoside	Flavonols	60	0.00598
kz0012			1.100	214.7500	kz0026			1.080	
84	Oxaloacetic acid	Organic acids	96	0	68	Ovalifoliolides B	Terpenoids	25	0.00569
kz0005			1.105	530.2500	kz0023			1.079	
80	1,6-di-O-Galloyl-β-D-Glucose	Phenolic acids	80	0	37	Luteolin-7-O-β-D-gentiobioside	Flavones	58	0.00566
kz0045			1.106	541.5000	kz0016			1.080	
98	1,4-di-O-galloyl-β-D-glucose	Phenolic acids	10	0	95	wogonoside	Flavones	31	0.00469
kz0005			1.106	1082.500	kz0035			1.077	
51	methyl 6-O-galloyl-β-D-glucopyranoside	Phenolic acids	29	00	04	Geraniinic acid C	Phenolic acids	04	0.00446
kz0028			1.106	1103.500	kz0005			1.079	
20	Limocitrin 7-glucoside	Flavonols	11	00	75	3,5-Di-O-galloylshikimic acid	Phenolic acids	23	0.00414
kz0036			1.106	2495.000	kz0008			1.080	
34	Sinapaldehyde Glucoside	Phenolic acids	37	00	41	Luteolin-O-sinapoylhexoside	Flavones	27	0.00409
					kz0015			1.078	
					84	Quercetin-3',4'-dimethyl ether	Flavonols	79	0.00400
					kz0050			1.080	
					43	Scopoletin?Beta-D-Glucuronide	Coumarins	32	0.00398
					kz0013			1.078	
					07	Phthalic acid	Organic acids	19	0.00388
					kz0029			1.080	
					75	Acacetin-7-O-glucuronide	Flavones	19	0.00374
					kz0017			1.077	
					40	Quercetin-3-O-(2'',3''-digalloyl)-β-D-glucopyranoside	Flavonols	61	0.00350
					kz0000	Caffeoylagmatine	Alkaloids	1.080	0.00329

32			39	
kz0038			1.080	
72	Lup-12-en-15 α ,19 β -diol-3,11-dioxo-28-oic acid	Terpenoids	46	0.00321
kz0017			1.078	
50	Tercatain	Phenolic acids	40	0.00314
kz0031			1.079	
04	Nobotanin D	Phenolic acids	60	0.00309
kz0006			1.079	
12	1,3,4,6-Tetra-O-Galloyl-D-Glucose	Phenolic acids	91	0.00285
kz0045			1.077	
95	Geraniin	Phenolic acids	64	0.00247
kz0029			1.080	
81	Diosmetin-7-O-glucuronide	Flavones	19	0.00240
kz0017			1.080	
26	Prunellin A	Others	41	0.00236
kz0001			1.080	
86	2-Deoxyribose 1-phosphate	Others	29	0.00225
km130			1.080	
0	Hydroxy-methoxycinnamate	Phenolic acids	22	0.00210
kz0022			1.078	
12	Azalein (Azaleatin-3-O-rhamnoside)	Flavonols	85	0.00207
kz0045			1.079	
96	Methyl neochebulagate	Others	44	0.00204
kz0000			1.080	
64	1-O-Feruloyl quinic acid	Phenolic acids	04	0.00203
kz0005			1.080	
52	4-O-Caffeoyl quinic acid (criptochlorogenic acid)	Phenolic acids	04	0.00202
kz0000			1.080	
59	3-O-p-Coumaroylshikimic acid	Phenolic acids	33	0.00182
kz0037			1.080	
66	Uncargenin D	Terpenoids	16	0.00174
kz0046			1.080	
65	5,7,3',4',5'-pentahydroxydihydroflavone	Flavanones	33	0.00172
kz0010			1.080	
79	Galloyl Methyl gallate	Phenolic acids	17	0.00169
kz0002			1.079	
76	4-Aminoindole	Alkaloids	91	0.00136
kz0053			1.080	
76	5'-methoxysolariciresinol-9'-O- β -D-xylopyranoside	Lignans	32	0.00135
kz0029			1.080	
83	Patuletin-3-O- β -D-glucopyranoside	Flavones	31	0.00125
kz0005	1-O-p-Coumaroyl quinic acid	Phenolic acids	1.080	0.00111

46			50	
kz0031			1.080	
06	Cuspinin	Phenolic acids	08	0.00100
kz0018			1.080	
24	cinnamoyltartaric acid	Phenolic acids	32	0.00099
kz0038			1.080	
62	3 β -Hydroxy-28-norurs-17,19,21-trien	Terpenoids	46	0.00094
kz0018			1.080	
20	benzoylmalic acid	Phenolic acids	40	0.00078
kz0010			1.080	
86	2,3-Dihydroxy 5(6),12(13)diene ursolic acid	Terpenoids	42	0.00072
kz0038			1.080	
23	Kampferol 3-O-(2''-galloyl)- β -D-galactopyranoside	Flavonols	52	0.00054
kz0026			1.080	
07	Lariciresinol glucopyranoside	Others	50	0.00053
kz0011			1.080	
91	4-hydroxycoumarin di-glucoside	Coumarins	56	0.00048
kz0047			1.080	
68	monogalloyl-diglucose	Phenolic acids	42	0.00039
kz0005			1.080	
37	3-Galloylshikimic acid	Phenolic acids	41	0.00038
km064			1.080	
0	Hesperetin 7-rutinoside (Hesperidin)	Flavanones	24	0.00033
kz0037			1.080	
48	7'-O-Sinapoyljasminoside L	Terpenoids	36	0.00029
kz0037			1.080	
16	Maplexin D (2,4-Di-O-Galloyl-1,5-Anhydro-D-Glucitol)	Phenolic acids	45	0.00020
kz0051			1.080	1340.0000
33	Luteolin-O-glucuronate-O-rhamnoside	Flavones	32	0
kz0009			1.080	1877.5000
19	Robinin(Kaempferol-3-O-gal-rham-7-O-rham)	Flavonols	54	0
kz0044			1.080	1907.5000
25	Luteolin-O-rutinoside-O-rhamnoside	Flavones	53	0
kz0045			1.080	5277.5000
98	1,4-di-O-galloyl- β -D-glucose	Phenolic acids	55	0
kz0005			1.080	5362.5000
80	1,6-Di-O-Galloyl-D-Glucose	Phenolic acids	50	0
kz0029			1.080	5390.0000
12	Santamarin	Terpenoids	47	0
kz0029			1.080	7915.0000
36	Silibinin	Flavanols	55	0
kz0000	1'-O- β -D-(3,4-Dihydroxyphenethyl)-O-caffeoyl-glucoside	Phenolic acids	1.080	9030.0000

				78				53	0
				kz0042				1.080	18800.000
				60	Corosolic acid		Terpenoids	56	00
				km093				1.080	155750.00
				6	Quercetin 7-O-β-D-Glucuronide		Flavonols	56	000

Table S2 Continued

RRT-F/RSL-F					RSS-F/RLM-F					RSS-F/RDP-F	
Index	Compounds	Class	VIP	Fold_Change	Index	Compounds	Class	VIP	Fold_Change	Index	Compounds
kz0046	7S,8R-threo-3′,9,9′-trihydroxy-3-methoxy-4′,7-epoxy-neolignan-4-O-α-L-rhamnopyranoside	Lignans	1.0	0.00001	kz0046	7S,8R-threo-3′,9,9′-trihydroxy-3-methoxy-4′,7-epoxy-neolignan-4-O-α-L-rhamnopyranoside	Lignans	1.085	0.00006	kz0050	7S,8R-threo-3′,9,9′-trihydroxy-3-methoxy-4′,7-epoxy-neolignan-4-O-α-L-rhamnopyranoside
kz0005			1.0		kz0022			1.085		kz0046	7S,8R-threo-3′,9,9′-trihydroxy-3-methoxy-4′,7-epoxy-neolignan-4-O-α-L-rhamnopyranoside
30	Brevifolin carboxylic acid	Phenolic acids	9	0.00003	11	Quercetin 3-O-β-D-xylopyranoside	Flavonols	00	0.00006	98	rhamnocitrin
kz0050			1.0		kz0008			1.084		kz0038	3β-Hydroxy-28-norurs-17,19,21-trien
49	Salireposide	Phenolic acids	9	0.00004	81	Avicularin	Flavonols	98	0.00007	62	3β-Hydroxy-28-norurs-17,19,21-trien
kz0007			1.0		kz0005			1.084		kz0036	3β-Hydroxy-28-norurs-17,19,21-trien
03	Delphinidin-3-O-glucoside (Mirtillin)	Anthocyanins	9	0.00008	30	Brevifolin carboxylic acid	Phenolic acids	18	0.00021	34	Sinapaldehyde Glucoside
kz0013		Proanthocyanidins	1.0		kz0005			1.084		kz0028	3β-Hydroxy-28-norurs-17,19,21-trien
32	Procyanidin B2	dins	9	0.00008	32	Protocatechuic acid-4-glucoside	Phenolic acids	91	0.00036	20	Limocitrin 7-glucoside
kz0013		Proanthocyanidins	1.0		kz0038			1.084		kz0005	3β-Hydroxy-28-norurs-17,19,21-trien
35	Procyanidin B1	dins	9	0.00010	62	3β-Hydroxy-28-norurs-17,19,21-trien	Terpenoids	88	0.00038	51	Methyl 6-O-galloyl-β-D-glucopyranoside
kz0013		Proanthocyanidins	1.0		kz0053			1.085		kz0010	3β-Hydroxy-28-norurs-17,19,21-trien
33	Procyanidin B3	dins	9	0.00011	77	lyoniresinol-9′-O-β-D-xylopyranoside	Lignans	00	0.00039	86	2,3-Dihydroxy-5(6),12(13)diene ursolic acid
kz0053			1.0		kz0036			1.084		km064	2,3-Dihydroxy-5(6),12(13)diene ursolic acid
77	lyoniresinol-9′-O-β-D-xylopyranoside	Lignans	9	0.00012	34	Sinapaldehyde Glucoside	Phenolic acids	99	0.00040	0	Hesperetin 7-rutinoside (Hesperidin)
kz0037			1.0		kz0000			1.084		kz0022	3β-Hydroxy-28-norurs-17,19,21-trien
17	Maplexin C (2,3-Di-O-Galloyl-1,5-Anhydro-D-Glucitol)	Phenolic acids	9	0.00016	59	3-O-p-Coumaroylshikimic acid	Phenolic acids	95	0.00062	02	Farnesol
kz0037			1.0		kz0000			1.084		kz0011	3β-Hydroxy-28-norurs-17,19,21-trien
16	Maplexin D (2,4-Di-O-Galloyl-1,5-Anhydro-D-Glucitol)	Phenolic acids	9	0.00020	64	1-O-Feruloyl quinic acid	Phenolic acids	92	0.00063	77	Sinapaldehyde Glucoside
kz0007			1.0		kz0037			1.084		km081	3β-Hydroxy-28-norurs-17,19,21-trien
04	Cyanidin-O-syringic acid	Anthocyanins	9	0.00025	66	Uncargenin D	Terpenoids	98	0.00088	8	Myricetin 3-O-rhamnoside (Myricitrin)
km064			1.0		kz0037			1.084		kz0018	3β-Hydroxy-28-norurs-17,19,21-trien
0	Hesperetin 7-rutinoside (Hesperidin)	Flavanones	9	0.00033	17	Maplexin C (2,3-Di-O-Galloyl-1,5-Anhydro-D-Glucitol)	Phenolic acids	63	0.00089	24	cinnamoylshikimic acid
kz0047			1.0		kz0028			1.084		kz0037	3β-Hydroxy-28-norurs-17,19,21-trien
68	monogalloyl-digluco	Phenolic acids	9	0.00039	20	Limocitrin 7-glucoside	Flavonols	79	0.00091	94	Syringic acid
km081			1.0		kz0011			1.084		kz0003	3β-Hydroxy-28-norurs-17,19,21-trien
8	Myricetin 3-O-rhamnoside (Myricitrin)	Flavonols	9	0.00044	91	4-hydroxycoumarin di-glucoside	Coumarins	95	0.00092	06	Methyl 6-O-galloyl-β-D-glucopyranoside
kz0011			1.0		kz0005			1.084		kz0022	3β-Hydroxy-28-norurs-17,19,21-trien
91	4-hydroxycoumarin di-glucoside	Coumarins	9	0.00048	51	Methyl 6-O-galloyl-β-D-glucopyranoside	Phenolic acids	93	0.00092	12	Azelaic acid
kz0005			1.0		kz0010			1.084		kz0002	3β-Hydroxy-28-norurs-17,19,21-trien
53	Neochlorogenic acid(5-O-Caffeoylquinic acid)	Phenolic acids	9	0.00048	86	2,3-Dihydroxy 5(6),12(13)diene ursolic acid	Terpenoids	96	0.00101	76	4-Acetylshikimic acid
kz0031	Clemaphenol A	Lignans	1.0	0.00053	kz0038	Lup-12-en-15α,19β-diol-3,11-dioxo-28-oic acid	Terpenoids	1.085	0.00102	kz0017	Prunellin

47			9		72			00		26	
kz0038			1.0		km064			1.084		kz0053	
23	Kampferol 3-O-(2''-galloyl)-β-D-galactopyranoside	Flavonols	9	0.00054	0	Hesperetin 7-rutinoside (Hesperidin)	Flavanones	95	0.00110	76	5'-n
kz0005			1.0		kz0005			1.084		kz0041	
55	1-Caffeoylquinic acid	Phenolic acids	9	0.00061	46	1-O-p-Coumaroyl quinic acid	Phenolic acids	85	0.00110	72	Que
kz0038			1.0		kz0026			1.084		kz0003	
21	Kampferol 3-O-(6''-galloyl)-β-D-galactopyranoside	Flavonols	9	0.00061	07	Lariciresinol glucopyranoside	Others	81	0.00118	04	(±)-
kz0036			1.0		kz0022			1.084		kz0038	
36	Plantainoside A	Phenolic acids	9	0.00072	02	Farrerol 7-O-glucoside	Flavanones	99	0.00118	33	Que
kz0018			1.0		kz0050			1.084		kz0004	
20	benzoylmalic acid	Phenolic acids	9	0.00078	43	Scopoletin?Beta-D-Glucuronide	Coumarins	98	0.00120	79	Cinn
kz0038			1.0		kz0029			1.084		kz0052	
62	3β-Hydroxy-28-norurs-17,19,21-trien	Terpenoids	9	0.00094	78	Pratensein 7-O-glucopyranoside	Flavones	97	0.00142	26	Nec
kz0018			1.0		kz0001			1.084		kz0008	
24	cinnamoyltartaric acid	Phenolic acids	9	0.00099	86	2-Deoxyribose 1-phosphate	Others	93	0.00143	30	Chr
kz0031			1.0		kz0038			1.084		kz0008	
06	Cuspinin	Phenolic acids	9	0.00100	23	Kampferol 3-O-(2''-galloyl)-β-D-galactopyranoside	Flavonols	68	0.00150	31	Dio
kz0005			1.0		kz0037			1.084		kz0047	
46	1-O-p-Coumaroyl quinic acid	Phenolic acids	9	0.00111	16	Maplexin D (2,4-Di-O-Galloyl-1,5-Anhydro-D-Glucitol)	Phenolic acids	31	0.00156	74	(2R)
kz0029			1.0		kz0020			1.083		kz0003	
83	Patuletin-3-O-β-D-glucopyranoside	Flavones	9	0.00125	63	Galloyl-HHDP(Hexahydroxydiphenoyl)-glueopy ranose	Phenolic acids	39	0.00165	08	N-[(
kz0013		Proanthocyani	1.0		kz0018			1.084		kz0029	
40	Procyanidin C2	dins	9	0.00128	24	cinnamoyltartaric acid	Phenolic acids	90	0.00168	78	Prat
kz0047			1.0		kz0031			1.083		kz0011	
74	(2R)-Pinocembrin-7-neohesperidoside	Flavanones	9	0.00134	03	Gemin D	Phenolic acids	25	0.00170	91	4-hy
kz0053			1.0		kz0010			1.084		kz0042	
76	5'-methoxyisolariciresinol-9'-O-β-D-xylopyranoside	Lignans	9	0.00135	79	Galloyl Methyl gallate	Phenolic acids	99	0.00178	31	Isot
kz0002			1.0		kz0021			1.084		kz0042	
76	4-Aminoindole	Alkaloids	9	0.00136	97	2'-Hydoxy,5-methoxy Genistein-4',7-O-diglucoside	Isoflavones	84	0.00184	33	Terr
kz0025			1.0		kz0001			1.084		kz0038	
57	4-O-glucosyl-3,4-dihydroxybenzyl alcohol	Phenolic acids	9	0.00144	56	7-O-Methyleriodictyol	Flavanols	94	0.00204	72	Lup
kz0025			1.0		km130			1.084		kz0001	
51	Isosinapic acid-hexoside	Phenolic acids	9	0.00163	0	Hydroxy-methoxycinnamate	Phenolic acids	98	0.00213	56	7-O
kz0023			1.0		kz0003			1.084		kz0000	
67	Methyl dioxindole-3-acetate	Others	9	0.00166	06	Methyl jasmonate	Organic acids	99	0.00228	64	1-O
kz0046			1.0		kz0022			1.084		kz0050	
65	5,7,3',4',5'-pentahydroxydihydroflavone	Flavanones	9	0.00172	12	Azalein (Azaleatin-3-O-rhamnoside)	Flavonols	38	0.00261	43	Sco
kz0009			1.0		kz0037			1.084		kz0052	
74	Gallocatechin	Flavanols	9	0.00187	48	7'-O-Sinapoyljasminoside L	Terpenoids	70	0.00275	47	Lim
kz0033			1.0		kz0002			1.084		kz0046	
70	Swertiamarin	Terpenoids	9	0.00191	76	4-Aminoindole	Alkaloids	13	0.00276	32	isoc
kz0005	4-O-Caffeoyl quinic acid (criptochlorogenic acid)	Phenolic acids	1.0	0.00202	kz0001	Sakuranetin	Flavones	1.084	0.00278	kz0012	γ-Ar

52			9		18			99		61	
kz0045			1.0		kz0006			1.084		kz0031	
96	Methyl neochebulagate	Others	9	0.00204	12	1,3,4,6-Tetra-O-Galloyl-D-Glucose	Phenolic acids	12	0.00321	66	6-H
kz0022			1.0		kz0017			1.084		kz0012	
12	Azalein (Azaleatin-3-O-rhamnoside)	Flavonols	9	0.00207	26	Prunellin A	Others	12	0.00370	97	(Rs)
kz0037			1.0		kz0005			1.084		kz0013	
94	Syringic Aldehyde-glucoside	Phenolic acids	9	0.00208	36	5-Galloylshikimic acid	Phenolic acids	84	0.00372	18	Qui
kz0000			1.0		kz0042			1.084		kz0029	
50	Homogentisic acid	Phenolic acids	9	0.00214	63	Osthole	Coumarins	88	0.00480	10	Part
kz0001			1.0		kz0026			1.084		kz0000	
86	2-Deoxyribose 1-phosphate	Others	9	0.00225	68	Ovalifoliolides B	Terpenoids	94	0.00597	59	3-O
kz0017			1.0		kz0053			1.083		kz0026	
26	Prunellin A	Others	9	0.00236	76	5'-methoxyisolariciresinol-9'-O-β-D-xylopyranoside	Lignans	83	0.00624	68	Ova
kz0029			1.0		kz0017			1.082		kz0042	
81	Diosmetin-7-O-glucuronide	Flavones	9	0.00240	40	Quercetin-3-O-(2'',3''-digalloyl)-β-D-glucopyranoside	Flavonols	97	0.00730	63	Ost
kz0005			1.0		kz0046			1.083		kz0012	
92	Rosmarinyl Glucoside	Phenolic acids	9	0.00267	65	5,7,3',4',5'-pentahydroxydihydroflavone	Flavanones	98	0.00760	81	Citr
kz0006			1.0		kz0005			1.076		kz0002	
12	1,3,4,6-Tetra-O-Galloyl-D-Glucose	Phenolic acids	9	0.00285	52	4-O-Caffeoyl quinic acid (criptochlorogenic acid)	Phenolic acids	88	0.00774	32	O-P
kz0031			1.0		kz0031			1.083		kz0037	
04	Nobotanin D	Phenolic acids	9	0.00309	06	Cuspinin	Phenolic acids	92	0.00787	19	Met
kz0013		Proanthocyani	1.0		kz0029			1.084		kz0053	
31	Procyanidin A1	dins	9	0.00311	60	Eupatilin	Flavones	90	0.00806	77	lyon
kz0009			1.0		kz0000			1.083		kz0001	
73	Epigallocatechin (EGC)	Flavanols	9	0.00312	32	Caffeoylagmatine	Alkaloids	56	0.00833	18	Sak
kz0017			1.0		kz0029			1.084		kz0030	
50	Tercatain	Phenolic acids	9	0.00314	62	Penduletin (5,4'-Dihydroxy-3,6,7-trimethoxyflavone)	Flavones	99	0.01016	99	Di-C
kz0000			1.0		kz0023			1.077		kz0024	
32	Caffeoylagmatine	Alkaloids	9	0.00329	37	Luteolin-7-O-β-D-gentiobioside	Flavones	24	0.01253	19	Erg
kz0029			1.0		kz0005			1.084		kz0002	
75	Acacetin-7-O-glucuronide	Flavones	9	0.00374	37	3-Galloylshikimic acid	Phenolic acids	09	0.01461	74	N-si
kz0015			1.0		kz0015			1.083		kz0001	
84	Quercetin-3',4'-dimethyl ether	Flavonols	9	0.00400	84	Quercetin-3',4'-dimethyl ether	Flavonols	30	0.01563	45	For
kz0005			1.0		kz0016			1.084		kz0040	
75	3,5-Di-O-galloylshikimic acid	Phenolic acids	9	0.00414	95	wogonoside	Flavones	56	0.01604	13	Sola
kz0047			1.0		kz0003			1.084		kz0038	
03	secoisolariciresinol 9-O-β-D-glucopyranoside	Lignans	9	0.00456	04	(±)-jasmonic acid	Organic acids	48	0.01625	54	Ros
kz0016			1.0		kz0046			1.084		kz0047	2-H
95	wogonoside	Flavones	9	0.00469	32	isoceanothic acid	Terpenoids	91	0.02082	62	(trin
kz0026			1.0		kz0008			1.084		kz0025	
68	Ovalifoliolides B	Terpenoids	9	0.00569	41	Luteolin-O-sinapoylhexoside	Flavones	66	0.02427	51	Isos
kz0038	Sieboldin	Chalcones	1.0	0.00802	kz0019	Kaempferol-3-O-(cinnamoyl)-sophoroside-7-O-glucose	Flavonols	1.084	0.02644	kz0010	4-M

09			9		73			12		20	
kz0009			1.0		kz0050			1.083		kz0010	
71	Catechin	Flavanols	9	0.00859	49	Salireposide	Phenolic acids	94	0.02783	93	Ole
kz0022			1.0		kz0001			1.078		kz0009	
02	Farrerol 7-O-glucoside	Flavanones	9	0.00894	97	E-3,4,5'-Trihydroxy-3'-glucopyranosylstilbene	Others	77	0.02899	78	Cate
kz0038			1.0		kz0008			1.083		kz0010	
48	Cinchonain Ic	Flavanols	9	0.00946	31	Diosmin	Flavones	19	0.03183	91	Eus
kz0047			1.0		kz0052			1.075		kz0009	
71	Epicatechin glucoside	Flavanols	9	0.01045	26	Neodiosmin (Diosmetin-7-O-Neohesperidoside)	Flavones	86	0.03236	79	Cate
kz0029			1.0		kz0030			1.083		kz0038	
78	Pratensein 7-O-glucopyranoside	Flavones	9	0.01061	83	5,2'-Dihydroxy-7,8-dimethoxyflavone glycosides	Flavones	32	0.03356	63	San
kz0004			1.0		kz0008			1.080		kz0004	
19	Phlorizin	Chalcones	9	0.01107	30	Chrysoeriol-7-O-rutinoside	Flavones	56	0.03441	14	2-PI
kz0009			1.0		kz0005			1.082		kz0009	
79	Catechin-(7,8-bc)-4 α -(3,4-dihydroxyphenyl)-dihydro-2-(3H)-pyranone	Flavanols	9	0.01247	44	3-O-p-Coumaroyl quinic acid	Phenolic acids	43	0.03590	11	Que
kz0016			1.0		kz0017			1.069		kz0005	
84	Tetramethyluteolin (3',4',5,7-Tetramethoxyflavone)	Flavones	9	0.01259	39	Quercetin-3-O-(2''-galloyl)- β -D-glucoside	Flavonols	17	0.03650	22	Met
kz0009			1.0		kz0038			1.078		kz0005	
78	Catechin-(7,8-bc)-4 β -(3,4-dihydroxyphenyl)-dihydro-2-(3H)-pyranone	Flavanols	9	0.01272	29	Quercetin 3-O-(6''-galloyl)- β -D-galactopyranoside	Flavonols	97	0.03681	39	3-H
kz0052			1.0		kz0003			1.084		kz0009	
26	Neodiosmin (Diosmetin-7-O-Neohesperidoside)	Flavones	9	0.01281	08	N-[(-)-Jasmonoyl]-(L)-Isoleucine (JA-L-Ile)	Organic acids	55	0.03949	08	Que
kz0009			1.0		kz0005			1.083		kz0005	
69	Afzelechin(3,5,7,4'-Tetrahydroxyflavan)	Flavanols	9	0.01380	48	Trans-3-O-p-coumaric quinic acid	Phenolic acids	67	0.03958	67	Dita
kz0008			1.0		kz0042			1.083		kz0016	
31	Diosmin	Flavones	9	0.01422	31	Isothankunic acid	Terpenoids	60	0.05135	95	wog
km043			1.0		kz0009			1.083		kz0034	
6	Afzelechin (3,5,7,4'-Tetrahydroxyflavan)	Flavanones	9	0.01662	97	Terpineol monO-glucoside	Lignans	44	0.05259	98	2-O
kz0003			1.0		kz0037			1.078		kz0050	
06	Methyl jasmonate	Organic acids	9	0.01938	67	Obtusilin	Terpenoids	29	0.05416	54	Chr
kz0029			1.0		kz0004			1.082		kz0013	
60	Eupatilin	Flavones	9	0.01979	40	Astilbin	Flavanols	68	0.06103	12	Shik
kz0038			1.0		kz0010			1.084		kz0003	
29	Quercetin 3-O-(6''-galloyl)- β -D-galactopyranoside	Flavonols	9	0.02233	90	Methoxyursolic acid	Terpenoids	55	0.06384	12	A-K
kz0017			1.0		kz0051			1.083		kz0005	
39	Quercetin-3-O-(2''-galloyl)- β -D-glucoside	Flavonols	8	0.02245	36	Camaldulenic acid	Terpenoids	92	0.06751	42	1-O
kz0037			1.0		kz0022			1.068		kz0001	
19	Methyl 4,6-di-O-galloyl-D-glucoside	Phenolic acids	8	0.02424	21	Eucommin A	Lignans	60	0.07532	21	Chr
kz0000			1.0		kz0004			1.084		kz0010	
40	N,N'-Bis(Sinapoyl)Spermidine	Alkaloids	9	0.02434	79	Cinnamic acid	Phenolic acids	56	0.07777	41	N-A
kz0008			1.0		kz0051			1.084		kz0005	
30	Chrysoeriol-7-O-rutinoside	Flavones	9	0.02440	87	Dunalianoside B	Phenolic acids	06	0.07983	20	Sina
kz0037	7'-O-Sinapoyljasminoside L	Terpenoids	1.0	0.02606	kz0035	Dihydrokaempferol-7-O-glucoside	Flavonols	1.083	0.08126	kz0004	But

48			9		40		68		22		
kz0038			1.0		kz0038		1.082		kz0004		
12	Isorhamnetin O-malonylglucoside	Flavonols	9	0.02628	48	Cinchonain Ic	Flavanols	88	0.08136	34	Pino
kz0053			1.0		km129		1.083		km084		
89	Byzantionoside A	Others	9	0.02692	3	Hesperetin O-malonylhexoside	Flavanones	13	0.08775	9	Nar
kz0029			1.0		kz0026		1.084		kz0011		
62	Penduletin (5,4'-Dihydroxy-3,6,7-trimethoxyflavone)	Flavones	9	0.02909	73	Eriodictyol-O-glucoside	Flavones	32	0.08934	03	6-H
kz0001			1.0		kz0046		1.050		kz0051		
56	7-O-Methyleriodictyol	Flavanols	9	0.03247	30	2 α -hydroxyursolic acid	Terpenoids	91	0.09062	36	Can
kz0042			1.0		kz0012		1.082		kz0046		
31	Isothankunic acid	Terpenoids	9	0.03259	97	(Rs)-Mevalonic acid	Organic acids	07	0.09556	97	Taxi
kz0005			1.0		kz0001		1.083		kz0010		
36	5-Galloylshikimic acid	Phenolic acids	9	0.03507	45	Formononetin	Isoflavones	97	0.09586	32	N-A
kz0005			1.0		kz0009		1.084		kz0038		
37	3-Galloylshikimic acid	Phenolic acids	9	0.04409	78	Catechin-(7,8-bc)-4 β -(3,4-dihydroxyphenyl)-dihydro-2-(3H)-pyranone	Flavanols	93	0.10283	12	Ison
kz0035			1.0		kz0009		1.084		kz0008		
19	Cimidahurinine	Phenolic acids	9	0.04974	79	Catechin-(7,8-bc)-4 α -(3,4-dihydroxyphenyl)-dihydro-2-(3H)-pyranone	Flavanols	39	0.10763	89	Spir
kz0047			1.0		kz0042		1.082		kz0008		
38	4,7,9,9'-Tetrahydroxy-3,3'-dimethoxy-8-O-4'-neolignan	Others	9	0.05055	33	Terminolic acid	Terpenoids	17	0.10813	88	Que
kz0000			1.0		kz0012		1.083		kz0005		
58	Protocatechuic acid O-glucoside	Phenolic acids	9	0.05189	81	Citraconic acid	Organic acids	12	0.10841	84	5-O
kz0010			1.0		kz0012		1.080		km084		
74	Gallic acid	Phenolic acids	9	0.05321	87	(S)-(-)-2-Hydroxyisocaproic acid	Organic acids	20	0.12064	3	Nar
km053			1.0		kz0010		1.081		kz0005		
2	Delphinidin 3-O-glucoside (Mirtillin)	Anthocyanins	7	0.05463	93	Oleanolic acid 2-O- β -D-glucopyranoside	Terpenoids	99	0.12643	14	3,4-
kz0030			1.0		kz0047		1.084		kz0030		
99	Di-O-Glucose-quinic acid	Phenolic acids	9	0.05597	62	2-Hydroxy-5,8,11,14,17-icosapentaenoyloxy]propyl-2-(trimethylammonio)ethyl phosphate	Alkaloids	27	0.12904	38	3-O
kz0029			1.0		kz0037		1.072		kz0023		
10	Parthenolide	Terpenoids	9	0.06178	20	Maplexin H	Phenolic acids	95	0.14063	67	Met
kz0035			1.0		kz0011		1.084		kz0038		
18	5-(2-Hydroxyethyl)-2-O-glucosylohenol	Phenolic acids	9	0.06180	01	Trigonelline	Alkaloids	35	0.14334	11	Kae
kz0010			1.0		kz0012		1.081		kz0008		
86	2,3-Dihydroxy 5(6),12(13)diene ursolic acid	Terpenoids	9	0.07097	61	γ -Aminobutyric acid	Organic acids	15	0.14469	00	Chr
km111			1.0		kz0004		1.083		km130		
3	5-O-p-Coumaroyl shikimic acid	Phenolic acids	8	0.07658	89	Protocatechuic acid	Phenolic acids	93	0.16372	0	Hyd
kz0015			1.0		kz0005		1.082		kz0004		
81	Calceorioside B	Others	8	0.08463	54	Chlorogenic acid	Phenolic acids	81	0.16377	41	Hes
kz0053			1.0		kz0013		1.083		kz0047		
73	Lyoniresinol	Lignans	8	0.08532	02	2,3-Dihydroxybenzoic Acid	Organic acids	85	0.16790	35	Ligr
kz0050			1.0		kz0038		1.064		kz0013		
88	Tricetin-4'-methyl-ether-3'-O- β -D-glucoside	Flavonols	9	0.08551	21	Kampferol 3-O-(6''-galloyl)- β -D-galactopyranoside	Flavonols	30	0.16836	32	Pro
kz0053	(+)-Isolariciresinol	Lignans	1.0	0.08581	kz0029	Parthenolide	Terpenoids	1.083	0.17233	kz0031	mly

70			9		10			97		08	
kz0004			1.0		kz0002			1.082		kz0053	
40	Astilbin	Flavanols	9	0.08687	94	2-Hydroxyisocaproic acid	Organic acids	69	0.17338	85	Ma
kz0011			1.0		kz0004			1.076		km022	
00	Nicotinic Acid Methyl Ester(Methyl Nicotinate)	Alkaloids	9	0.08790	95	3-(4-Hydroxyphenyl)-propionic acid	Phenolic acids	23	0.17585	8	Que
kz0041			1.0		kz0040			1.073		kz0022	
70	Rhamnetin 3-O-β-D-Glucoside	Flavonols	9	0.09070	13	Solatuberenol A	Others	22	0.17597	14	isoH
km130			1.0		km032			1.079		kz0008	
7	Isorhamnetin 5-O-hexoside	Flavonols	9	0.09278	9	3-(4-Hydroxyphenyl)propionic acid	Phenolic acids	89	0.17687	92	6-H
kz0041			1.0		kz0004			1.084		km007	
69	Isorhamnetin 3-O-β-D-Glucoside	Flavonols	9	0.09292	87	2,5-Dihydroxybenzoic acid	Phenolic acids	03	0.17787	1	Que
kz0001			1.0		kz0053			1.069		kz0005	
47	Methylquercetin O-hexoside	Flavonols	9	0.09517	89	Byzantionoside A	Others	58	0.17989	92	Ros
kz0028			1.0		kz0005			1.071		kz0013	
29	Isorhamnetin-7-O-glucoside	Flavonols	9	0.09566	53	Neochlorogenic acid(5-O-Caffeoylquinic acid)	Phenolic acids	73	0.18052	35	Pro
kz0037			1.0		kz0041			1.082		kz0013	
14	6-O-Galloylglucose	Phenolic acids	9	0.09570	33	L-Ascorbic acid	Vitamins	44	0.19856	33	Pro
kz0034			1.0		kz0038			1.083		kz0004	
97	3-O-Galloyl-β-D-glucose	Phenolic acids	9	0.09722	63	Sanguisorbigenin	Terpenoids	13	0.20173	77	Tyro
kz0029			1.0		kz0026			1.040		kz0010	
82	6-methoxykaempferol-3-O-glucoside	Flavonols	9	0.09795	65	Betulinic acid	Terpenoids	31	0.20622	90	Me
kz0041			1.0		kz0047			1.084		kz0006	
74	Benzyl-O-β-D-glucopyranose-β-D-xyranoside	Others	2	0.09931	74	(2R)-Pinocembrin-7-neohesperidoside	Flavanones	07	0.21239	98	Cya
kz0031			1.0		kz0006			1.055		kz0041	
00	5-O-Galloylhamamelose	Phenolic acids	9	0.10011	13	1,2,3,6-Tetra-O-Galloyl-D-Glucose	Phenolic acids	87	0.22107	74	Ben
kz0005			1.0		kz0038			1.074		kz0011	
77	Hexahydroxydiphenoylglucose	Phenolic acids	9	0.10074	60	Caffeoyl hawthorn acid	Terpenoids	95	0.22572	75	Escu
kz0052			1.0		kz0031			1.062		kz0016	
11	5,7,8,4'-Tetramethoxyflavone	Flavones	8	0.10299	16	2,4,6-trihydroxy benzoic acid	Organic acids	99	0.22793	71	5,7,
kz0005			1.0		kz0038			1.079		kz0005	
96	β-D-Furanofructosyl-α-D-(6-mustard acyl)glucoside	Phenolic acids	9	0.10548	54	Roseoside	Others	76	0.24325	04	Caff
kz0008			1.0		kz0000			1.076		kz0041	
41	Luteolin-O-sinapoylhexoside	Flavones	8	0.11433	70	Anthranilate O-hexosyl-O-hexoside	Phenolic acids	07	0.25133	69	Isor
kz0005			1.0		kz0017			1.077		kz0006	
04	Caffeic acid	Phenolic acids	9	0.11486	06	Isololiolide	Others	11	0.25276	12	1,3,
kz0008			1.0		kz0010			1.084		kz0037	
81	Avicularin	Flavonols	9	0.11730	91	Euscaphic acid	Terpenoids	49	0.25788	20	Ma
kz0009			1.0		kz0011			1.084		kz0002	
23	6-Hydroxykaempferol-3,6-O-Diglucoside-7-O-Glucuronic Acid	Flavonols	7	0.11925	54	Nicotinamide	Vitamins	30	0.26314	90	Am
kz0004			1.0		kz0030			1.082		kz0004	
24	Eriodictyol	Flavanones	9	0.12258	38	3-O-(2-O-Acetyl-β-D-glucopyranosyl) oleanolic acid	Terpenoids	26	0.26364	91	p-C
kz0026	Eriodictyol-O-glucoside	Flavones	1.0	0.12993	kz0004	Sweroside	Terpenoids	1.074	0.26514	kz0010	Cho

73			9		10			52		96	
km054			1.0		kz0012			1.081		kz0012	
8	Dihydroquercetin (Taxifolin)	Flavonols	9	0.13011	79	L-Homoserine	Organic acids	19	0.27305	89	Malic acid
kz0051			1.0		kz0011			1.067		kz0025	
87	Dunalianoside B	Phenolic acids	9	0.13376	77	Scoparone	Coumarins	71	0.27803	56	4-O-Methylcoumarin
kz0040			1.0		kz0012			1.080		kz0033	
13	Solatuberenol A	Others	8	0.13542	98	L-(+)-Tartaric acid	Organic acids	33	0.30047	70	Sweetgum
kz0031			1.0		kz0005			1.071		kz0015	
09	Mearnsitrin	Flavones	9	0.13568	39	3-Hydroxy-4-isopropylbenzylalcohol 3-glucoside	Phenolic acids	28	0.31549	81	Calcium
kz0035			1.0		kz0012			1.069		kz0012	
40	Dihydrokaempferol-7-O-glucoside	Flavonols	9	0.13591	89	Malic acid	Organic acids	72	0.31886	75	Methyl
kz0003			1.0		kz0011			1.033		kz0028	
08	N-[-Jasmonoyl]-(L)-Isoleucine (JA-L-Ile)	Organic acids	9	0.13629	03	6-Hydroxynicotinic acid	Alkaloids	20	0.32235	29	Isonicotinic
kz0010			1.0		kz0028			1.081		kz0047	
20	4-Methyl-5-thiazoleethanol	Others	9	0.14018	53	Dihydroisopelletierine	Alkaloids	68	0.32303	56	N-Bornyl
kz0010			1.0		kz0012			1.084		kz0000	
76	Ethyl gallate	Phenolic acids	9	0.14267	83	6-Aminocaproic acid	Organic acids	03	0.32788	51	4-Methyl
kz0047			1.0		kz0037			1.018		kz0010	
35	Ligraminol E	Others	8	0.14464	19	Methyl 4,6-di-O-galloyl-D-glucoside	Phenolic acids	06	0.32836	79	Gallotannin
kz0022			1.0		kz0010			1.073		kz0012	
11	Quercetin 3-O-β-D-xylopyranoside	Flavonols	9	0.14493	97	Betaine	Alkaloids	35	0.32968	76	Succinic
kz0006			1.0		km081			1.060		kz0050	
13	1,2,3,6-Tetra-O-Galloyl-D-Glucose	Phenolic acids	8	0.15028	8	Myricetin 3-O-rhamnoside (Myricitrin)	Flavonols	30	0.33372	88	Tricloro
kz0003			1.0		km008			1.079		kz0007	
04	(±)-jasmonic acid	Organic acids	9	0.15322	0	Biochanin A	Isoflavones	94	0.33640	79	Diosmetin
kz0026			1.0		kz0005			1.035		kz0041	
07	Lariciresinol glucopyranoside	Others	9	0.15396	84	5-O-p-Coumaroyl quinic acid O-hexoside	Phenolic acids	96	0.34771	70	Rhamnose
kz0038			1.0		kz0013		Proanthocyanidins	1.014		kz0008	
54	Roseoside	Others	9	0.15467	31	Procyanidin A1		27	0.34892	84	Kaempferol
kz0009			1.0		kz0011			1.077		km023	
97	Terpineol monO-glucoside	Lignans	9	0.15469	93	Prunetin	Isoflavones	32	0.36155	9	Chrysin
kz0011			1.0		kz0012			1.081		kz0001	
77	Scoparone	Coumarins	9	0.15969	68	2-Furanoic acid	Organic acids	47	0.37093	47	Methyl
km140			1.0		kz0046			1.076		km043	
5	Nicotinic acid-hexoside	Vitamins	8	0.16522	36	2α-hydroxypyraçrenic acid	Terpenoids	10	0.38159	6	Afzelechin
kz0013			1.0		kz0038			1.028		kz0025	
12	Shikimic acid	Organic acids	9	0.16935	61	3-O-Trans-feruloyl euscaphic acid	Terpenoids	30	0.38317	54	p-Hydroxy
kz0012			1.0		km087			1.064		kz0000	
97	(Rs)-Mevalonic acid lithium salt	Organic acids	9	0.16956	9	Orotic acid	Vitamins	22	0.38500	49	2-(Furan-2-yl)
kz0040			1.0		kz0022			1.073		kz0038	
15	Cis-p-coumaric acid 4-O-glucoside	Others	9	0.18049	20	Olivil-4'-O-β-D-glucoside	Lignans	53	0.38927	60	Caffeoyl
kz0029	Diosmetin-7-O-galactoside	Flavones	1.0	0.18110	kz0010	D-Glucurono-6,3-lactone	Others	1.055	0.39459	kz0028	Dimethyl

77			7		25			75		07	
kz0004			1.0		kz0015			1.079		kz0002	
17	Phloretin	Chalcones	8	0.18178	98	Stachydrine	Alkaloids	90	0.39570	59	Thia
kz0026			1.0		kz0052			1.075		kz0005	
87	Nortrachelogenin 4-O-β-D-glucoside	Lignans	7	0.18286	47	Limonin	Others	14	0.39819	57	Gluc
kz0025			1.0		kz0037			1.023		kz0002	
48	p-Coumaric acid-O-glycoside	Phenolic acids	9	0.18647	18	2,3-Di-O-Galloyl-D-Glucose	Phenolic acids	88	0.40206	01	D-g
kz0037			1.0		kz0002			1.079		kz0046	
20	Maplexin H	Phenolic acids	8	0.19104	31	5-Aminolevulinate	Alkaloids	40	0.40391	78	Anr
kz0024			1.0		kz0010			1.082		kz0029	
86	1,4,8-trihydroxy naphthalene-1-O-β-D-glucopyranoside	Quinones	9	0.19536	88	3,24-Dihydroxy-17,21-semiacetal-12(13)oleanolic fruit	Terpenoids	74	0.40587	82	6-m
kz0000			1.0		kz0002			1.080		kz0005	
59	3-O-p-Coumaroylshikimic acid	Phenolic acids	7	0.19613	32	O-Phosphocholine	Alkaloids	97	0.40975	12	Syri
kz0038			1.0		kz0047			1.075		kz0011	
61	3-O-Trans-feruloyl euscaphic acid	Terpenoids	8	0.19874	56	N-Benzylmethylene isomethylamine	Alkaloids	90	0.41132	05	Ace
kz0004			1.0		kz0010			1.083		kz0025	
31	Eriodictyol 7-O-glucoside	Flavanones	7	0.19903	87	Maslinic acid	Terpenoids	09	0.41353	46	Isos
kz0005			1.0		kz0046			1.081		kz0035	
54	Chlorogenic acid	Phenolic acids	9	0.20145	27	alphitolic acid	Terpenoids	39	0.41686	17	Gluc
kz0005			1.0		kz0035			1.081		kz0022	
22	Methyl sinapate	Phenolic acids	6	0.20451	49	Hederagenin	Others	83	0.41845	19	Epip
kz0012			1.0		kz0010			1.082		kz0053	
81	Citraconic acid	Organic acids	9	0.22024	89	2-Hydroxyoleanolic acid	Terpenoids	24	0.41881	55	Koa
kz0031			1.0		kz0040			1.059		kz0010	
03	Gemin D	Phenolic acids	9	0.22244	21	6-Deoxyfagomine	Alkaloids	74	0.42253	97	Bet
kz0029			1.0		kz0046			1.082		kz0009	
95	Quercetin-7-O-(6'-O-malonyl)-β-D-glucoside	Flavonols	7	0.23150	26	pomolic acid	Terpenoids	94	0.42260	69	Afze
km121			1.0		kz0000			1.017		kz0005	
1	Chrysoeriol 7-O-hexoside	Flavones	4	0.23276	50	Homogentisic acid	Phenolic acids	86	0.48112	37	3-G
kz0020			1.0		kz0026			1.018		kz0002	
63	Galloyl-HHDP(Hexahydroxydiphenoyl)-glueopy ranose	Phenolic acids	8	0.24006	87	Nortrachelogenin 4-O-β-D-glucoside	Lignans	70	0.48887	58	Nico
kz0051			1.0		kz0016			1.046		kz0050	
86	Dunalianoside C	Phenolic acids	8	0.25114	42	5'-Glucopyranosyloxyjasmanic acid	Phenolic acids	87	0.48946	84	(Ka
kz0000			1.0		kz0002			1.083		kz0009	
52	Ethyl 3,4-Dihydroxybenzoate (Ethyl protocatechuate)	Phenolic acids	8	0.25241	01	D-galacitol	Others	76	0.49021	92	Pinc
kz0029			1.0		kz0002			1.072		km081	
49	Hispidulin	Flavones	7	0.25402	40	Trans-Zeatin-9-N-Glucoside	Alkaloids	77	2.01911	4	Mo
kz0009			1.0		kz0005			1.077		kz0020	
95	Syringaresinol	Lignans	9	0.25586	01	Methyl p-coumarate	Phenolic acids	76	2.05142	08	3,5,
km068			1.0		km023			1.047		kz0029	
6	Kaempferol 3-O-rhamnoside (Kaempferin)	Flavonols	9	0.25778	5	Apigenin	Flavones	22	2.09381	49	Hisp
kz0028	Dihydroisopelletierine	Alkaloids	1.0	0.25997	kz0007	Luteolin-7-O-glucoside(Cynaroside)	Flavones	1.073	2.10816	kz0005	Met

53			9		95		71		01		
kz0013			1.0		kz0003		1.071		km130		
18	Quinic Acid	Organic acids	9	0.26365	12	A-Ketoglutaric acid	Organic acids	71	2.17849	7	Ison
kz0002			1.0		kz0005		1.080		kz0038		
84	3-Hydroxypropanoic acid	Organic acids	8	0.26557	14	3,4-Dimethoxycinnamic acid	Phenolic acids	04	2.21638	23	Kam
kz0026			1.0		kz0005		1.075		km068		
78	Quercetin-3-O-(6''-O-acetyl)-galactoside	Flavonols	8	0.26571	11	Ferulic acid	Phenolic acids	12	2.24935	3	Kae
km023			1.0		kz0050		1.063		kz0005		
9	Chrysoeriol	Flavones	7	0.26644	79	Kaempferol-4'-O-β-D-glucopyranoside	Flavonols	03	2.25118	36	5-G
kz0005			1.0		kz0028		1.078		kz0008		
60	Trihydroxycinnamoylquinic acid	Phenolic acids	8	0.29274	62	Dihydrosedinine	Alkaloids	85	2.29400	66	Que
kz0016			1.0		km043		1.083		kz0006		
71	5,7,2'-Trhiyrox-8-methoxyflavone	Flavones	8	0.30671	6	Afzelechin (3,5,7,4'-Tetrahydroxyflavan)	Flavanones	69	2.31188	13	1,2,
kz0009			1.0		kz0038		1.054		kz0012		
92	Pinoresinol	Lignans	9	0.31102	11	Kaempferol-malonyl-3-O-glucoside	Flavonols	93	2.36829	85	2-M
kz0022			1.0		kz0038		1.079		kz0046		
21	Eucommin A	Lignans	8	0.31565	49	dihydrodehydrodiconiferyl alcohol 4-O-β-D-glucopyranosides	Lignans	02	2.41183	36	2α-
km129			1.0		kz0021		1.007		kz0050		
3	Hesperetin O-malonylhexoside	Flavanones	9	0.31611	64	Isoluteolin (Orobol)(5,7,3',4'-tetrahydroxyisoflavone)	Isoflavones	26	2.44226	78	Kae
kz0007			1.0		kz0005		1.073		kz0034		
79	Diosmetin	Flavones	8	0.31841	12	Syringic acid	Phenolic acids	29	2.44294	97	3-O
kz0038			1.0		kz0010		1.081		kz0031		
11	Kaempferol-malonyl-3-O-glucoside	Flavonols	5	0.32473	96	Choline	Alkaloids	12	2.47368	00	5-O
kz0022			1.0		kz0000		1.082		kz0031		
19	(+)-Epipinoresinol	Lignans	9	0.32698	53	Isoferulic Acid	Phenolic acids	17	2.55076	09	Me
kz0000			1.0		kz0000		1.082		kz0037		
68	Catechin gallate	Phenolic acids	6	0.33213	56	Salicylic acid glucoside	Phenolic acids	65	2.55197	14	6-O
km007			1.0		kz0009		1.082		kz0005		
1	Quercetin 3-O-galactoside (Hyperin)	Flavonols	9	0.33575	69	Afzelechin(3,5,7,4'-Tetrahydroxyflavan)	Flavanols	90	2.56019	32	Pro
kz0022			1.0		km057		1.015		kz0022		
14	isohyperoside	Flavonols	9	0.33900	3	Epicatechin gallate (ECG)	Flavanols	52	2.58712	20	Oliv
kz0030			1.0		kz0053		1.081		kz0009		
98	3-O-Digalloyl quinic acid	Phenolic acids	6	0.34151	75	Isolariciresinol 9'-O-Glucoside	Lignans	58	2.59903	71	Cate
kz0008			1.0		kz0009		1.077		km077		
92	6-Hydroxykaempferol-7-O-glucoside	Flavonols	9	0.34564	15	6-Hydroxykaempferol-7,6-O-Diglucoside	Flavonols	60	2.60181	9	Lute
kz0005			1.0		kz0050		1.067		kz0029		
73	p-Coumaroylferuloyltartaric acid	Phenolic acids	9	0.35000	46	Dihydrokaempferol-3-O-β-D-glucoside	Flavanols	84	2.61257	95	Que
kz0004			1.0		kz0002		1.084		kz0036		
79	Cinnamic acid	Phenolic acids	9	0.35135	91	2-Picolinic acid	Organic acids	05	2.63652	90	Que
kz0031			1.0		km008		1.056		kz0005		
16	2,4,6-trihydroxy benzoic acid	Organic acids	3	0.35629	1	Genistein (4',5,7-Trihydroxyisoflavone)	Isoflavones	75	2.63936	60	Trih
km022	Quercetin 3-O-glucoside (Isotrifoliin)	Flavonols	1.0	0.35728	kz0011	Indole-3-carboxaldehyde	Alkaloids	1.037	2.66086	kz0007	Lute

8			9		99		26		95		
kz0000			1.0		kz0002		1.079		kz0050		
56	Salicylic acid glucoside	Phenolic acids	9	0.36239	58	Nicotinate D-ribonucleoside	Vitamins	01	2.68000	46	Dihy
kz0005			1.0		kz0005		1.081		kz0053		
57	Glucosyringic Acid	Phenolic acids	8	0.36495	77	Hexahydroxydiphenoylglucose	Phenolic acids	42	2.70811	73	Lyo
kz0010			1.0		kz0053		1.073		kz0050		
75	Methyl gallate	Phenolic acids	8	0.36712	70	(+)-Isolariciresinol	Lignans	73	2.86395	79	Kae
kz0004			1.0		kz0012		1.083		kz0010		
95	3-(4-Hydroxyphenyl)-propionic acid	Phenolic acids	9	0.36834	93	4-Guanidinobutyric acid	Organic acids	18	2.90886	18	3-A
kz0023			1.0		kz0002		1.081		kz0038		
37	Luteolin-7-O-β-D-gentiobioside	Flavones	5	0.37482	96	Citramalate	Organic acids	02	2.95580	21	Kam
kz0011			1.0		kz0053		1.082		kz0026		
54	Nicotinamide	Vitamins	9	0.38506	55	Koaburaside	Phenolic acids	91	2.99645	04	Kae
kz0025			1.0		kz0041		1.072		kz0025		
58	6-O-caffeoyl-β-glucose	Phenolic acids	8	0.38880	69	Isorhamnetin 3-O-β-D-Glucoside	Flavonols	28	3.08092	60	6-O
kz0031			1.0		kz0011		1.082		kz0005		
08	mlyricetin 3-O-B-D-glucopyranoside	Flavonols	6	0.39196	63	Riboflavin	Vitamins	34	3.12951	40	3,4,
kz0050			1.0		kz0015		1.081		kz0013		
54	Chrysin-7-glucoside	Flavones	8	0.39706	81	Calceorioside B	Others	20	3.24356	08	D-X
km032			1.0		kz0028		1.075		kz0025		
9	3-(4-Hydroxyphenyl)propionic acid	Phenolic acids	9	0.40153	29	Isorhamnetin-7-O-glucoside	Flavonols	44	3.26793	57	4-O
kz0020			1.0		kz0011		1.073		kz0004		
08	3,5,7,4'--Tetrahydroxy-Coumaronochromone	Others	5	0.40591	13	Lumichrome	Alkaloids	67	3.32550	75	4-H
kz0004			1.0		kz0007		1.076		kz0027		
14	2-Picolylamine	Alkaloids	7	0.43198	91	Apigenin 7-O-glucoside(Cosmosiin)	Flavones	73	3.36863	83	Kae
kz0017			1.0		kz0033		1.040		kz0009		
10	Stilbostemin B	Others	6	0.43279	70	Swertiamarin	Terpenoids	66	3.38871	95	Syri
kz0010			1.0		kz0009		1.078		kz0008		
41	N-Acetyl-D-glucosamine 1-phosphate	Others	9	0.43855	11	Quercetin-7-O-rutinoside	Flavonols	83	3.40781	12	Tric
kz0009			1.0		kz0001		1.079		kz0002		
15	6-Hydroxykaempferol-7,6-O-Diglucoside	Flavonols	9	0.44120	47	Methylquercetin O-hexoside	Flavonols	27	3.41294	40	Tran
kz0029			1.0		kz0010		1.083		kz0015		
33	Ixerin D	Terpenoids	8	0.44150	20	4-Methyl-5-thiazoleethanol	Others	88	3.42270	84	Que
kz0000			1.0		kz0050		1.080		kz0051		
47	Mandelic acid	Phenolic acids	9	0.44222	88	Tricetin?4'-methyl?ether-3'-O-β-D-glucoside	Flavonols	49	3.45499	86	Dur
kz0011			1.0		kz0041		1.084		kz0004		
75	Esculetin	Coumarins	6	0.44751	70	Rhamnetin 3-O-β-D-Glucoside	Flavonols	02	3.49603	31	Erio
kz0005			1.0		kz0013		1.083		kz0025		
49	1-O-[(E)-Caffeoyl]-β-D-glucopyranose	Phenolic acids	8	0.44969	18	Quinic Acid	Organic acids	24	3.49885	48	p-C
kz0001			1.0		kz0029		1.082		kz0004		
21	Chrysin 5-O-glucoside (Toringin)	Flavones	8	0.45566	82	6-methoxykaempferol-3-O-glucoside	Flavonols	01	3.50433	66	4-H
kz0005	Coniferin	Phenolic acids	1.0	0.45730	kz0041	Quercetin 3-O-β-D-neohesperidoside	Flavonols	1.081	3.55085	km009	Oro

50			9		73		45		8		
kz0011			1.0		kz0038		1.037		kz0038		
55	Nicotinic acid	Vitamins	8	0.46114	59	p-Coumaroyleuscaphic acid	Terpenoids	23	3.60244	29	Quercetin-3-O-rutinoside (Rutin)
kz0052			1.0		kz0009		1.083		kz0051		
02	Dihydrokaempferol	Flavanols	6	0.47322	09	Quercetin-3-O-rutinoside (Rutin)	Flavonols	08	3.61553	98	Pterocarpans
kz0046			1.0		kz0005		1.079		kz0035		
97	Taxifolin-3'-O-β-D-glucoside	Flavones	5	0.49424	00	Riboprine	Phenolic acids	71	3.65002	72	Biotin
kz0002			1.0		km130		1.078		kz0033		
91	2-Picolinic acid	Organic acids	8	0.49728	7	Isorhamnetin 5-O-hexoside	Flavonols	24	3.69444	62	Tubercularic acid
kz0008			1.0		kz0009		1.081		kz0046		
88	Quercetin-3-O-β-D-Galactoside (Hyperin)	Flavonols	8	0.49761	08	Quercetin-3-O-robinobioside	Flavonols	41	3.70093	67	Myricetin
kz0008			1.0		kz0038		1.055		kz0009		
89	Spiraeoside	Flavonols	9	0.49960	12	Isorhamnetin O-malonylglucoside	Flavonols	48	3.74847	04	Tiludrone
kz0030			1.0		kz0009		1.082		kz0051		
97	3,4-Di-O-galloyl-shikimic acid	Phenolic acids	9	2.01010	71	Catechin	Flavanols	78	3.83453	32	Luteolin
kz0010			1.0		km140		1.080		kz0017		
93	Oleanolic acid 2-O-β-D-glucopyranoside	Terpenoids	9	2.16236	5	Nicotinic acid-hexoside	Vitamins	27	4.01995	39	Quercetin-3-O-rutinoside (Rutin)
km126			1.0		kz0007		1.082		km140		
9	3,7-Di-O-methylquercetin	Flavonols	9	2.21042	92	Apigenin 5-O-glucoside	Flavones	44	4.03128	5	Nicotinic acid
kz0051			1.0		kz0013		1.069		kz0017		
36	Camaldulenic acid	Terpenoids	9	2.22589	12	Shikimic acid	Organic acids	94	4.04146	42	Metoprolol
kz0009			1.0		kz0024		1.063		kz0040		
11	Quercetin-7-O-rutinoside	Flavonols	8	2.25872	85	3-methoxy-juglone	Quinones	90	4.23004	15	Cis-3-pentadecenoic acid
kz0037			1.0		kz0040		1.018		km023		
28	Geniposide	Terpenoids	1	2.26921	35	3-Indoleacrylic acid	Alkaloids	73	4.26822	5	Apigenin
kz0052			1.0		kz0009		1.083		kz0037		
00	Hesperetin 7-O-neohesperidoside(Neohesperidin)	Flavanones	9	2.27246	95	Syringaresinol	Lignans	30	4.31214	63	Betulinic acid
kz0009			1.0		kz0053		1.071		kz0011		
20	Quercetin-O-rutinoside-hexose	Flavonols	0	2.27826	73	Lyoniresinol	Lignans	84	4.31764	93	Prunellin
kz0041			1.0		km060		1.064		km008		
73	Quercetin 3-O-neohesperidoside	Flavonols	5	2.27926	2	Genistein 7-O-Glucoside (Genistin)	Isoflavones	79	4.32852	0	Biochanin A
kz0002			1.0		kz0053		1.071		kz0005		
74	N-sinapoylhydroxycoumarin	Coumarins	6	2.29496	78	5'-methoxyisolariciresinol-9'-O-β-D-glucopyranoside	Lignans	30	4.46792	73	p-Coumaric acid
kz0009			1.0		kz0037		1.061		kz0037		
09	Quercetin-3-O-rutinoside (Rutin)	Flavonols	8	2.36976	94	Syringic Aldehyde-glucoside	Phenolic acids	44	4.49612	21	Maple syrup
kz0005			1.0		kz0009		1.079		kz0004		
42	1-O-Galloyl-β-D-glucose	Phenolic acids	9	2.43943	12	Isorhamnetin-3-O-rutinoside (Narcissin)	Flavonols	99	4.53057	19	Phloroglucinol
km023			1.0		kz0050		1.068		km023		
5	Apigenin	Flavones	6	2.46446	55	Galangin-7-glucoside	Flavones	52	4.57255	1	2'-Hydroxyacetophenone
km130			1.0		kz0031		1.081		km008		
0	Hydroxy-methoxycinnamate	Phenolic acids	8	2.48952	09	Mearnsitrin	Flavones	67	4.58442	1	Geraniol
kz0034	2-O-Galloyl-β-D-glucose	Phenolic acids	1.0	2.50889	kz0004	Vanillic acid	Phenolic acids	1.081	4.62008	kz0015	Isotriphenylmethane

98			9		96		41		86		
kz0053			1.0		kz0021		1.061		kz0053		
78	5'-methoxyisolariciresinol-9'-O-β-D-glucopyranoside	Lignans	8	2.54005	96	2'-Hydoxy,5-methoxy Genistein-O-rhamnosyl-glucoside	Isoflavones	53	4.64540	78	5'-r
kz0027			1.0		kz0035		1.082		kz0021		
83	Kaempferol 3-O-β-d-(6''-O-(E)-p-coumaroyl) glucopyranoside	Flavonols	9	2.59149	17	Glucosyloxybenzoic acid	Phenolic acids	23	4.65532	64	Isol
kz0012			1.0		kz0013		1.083		kz0038		
75	Methylmalonic acid	Organic acids	9	2.62644	32	Procyanidin B2	dins	67	4.76062	50	(-)-s
kz0013			1.0		kz0027		1.053		kz0001		
15	Anchoic Acid	Organic acids	7	2.63482	88	Sexangularetin 3-glucoside-7-rhamnoside	Flavonols	73	4.80315	90	Arb
kz0011			1.0		kz0004		1.066		kz0020		
01	Trigonelline	Alkaloids	9	2.70794	66	4-Hydroxybenzaldehyde	Phenolic acids	42	4.83881	65	4-α
kz0019			1.0		kz0038		1.079		kz0025		
73	Kaempferol-3-O-(cinnamoyl)-sophoroside-7-O-glucose	Flavonols	8	2.73346	15	Kaempferol 3-O-(6''-trans-p-Coumaroyl)-β-D-glucopyranoside	Flavonols	61	4.94193	49	Van
kz0004			1.0		kz0013		1.082		kz0010		
96	Vanillic acid	Phenolic acids	9	2.73791	35	Procyanidin B1	dins	02	4.96513	75	Me
km008			1.0		kz0025		1.082		kz0005		
1	Genistein (4',5,7-Trihydroxyisoflavone)	Isoflavones	7	2.75563	56	4-O-glucosyl-4-hydroxybenzoic acid	Phenolic acids	42	4.98115	00	Rib
kz0002			1.0		kz0025		1.078		kz0005		
90	Aminomalonic acid	Organic acids	8	2.76608	52	Sinapic acid-glycoside	Phenolic acids	11	5.03627	15	Sin
kz0012			1.0		kz0013		1.082		kz0038		
76	Succinic acid	Organic acids	9	2.76660	33	Procyanidin B3	dins	58	5.05686	49	dih
kz0032			1.0		kz0005		1.069		kz0047		
62	Ayapin	Coumarins	7	2.79587	15	Sinapinaldehyde	Phenolic acids	99	5.23262	38	4,7,
km023			1.0		kz0041		1.058		kz0004		
1	2'-Hydroxygenistein	Isoflavones	1	2.81098	72	Quercetin 3-O-β-D-xylopyranosyl(1→2)-β-D-galactopyranoside	Flavonols	43	5.33866	96	Van
kz0005			1.0		kz0025		1.081		kz0025		
02	Coniferaldehyde	Phenolic acids	7	2.85857	46	Isosalicylic acid O-glycoside	Phenolic acids	65	5.46608	52	Sin
kz0004			1.0		kz0009		1.072		km093		
77	Tyrosol	Phenolic acids	5	2.86277	14	6-Hydroxykaempferol-3,6-O-Diglucoside	Flavonols	92	5.61705	4	Que
kz0009			1.0		kz0013		1.082		kz0030		
08	Quercetin-3-O-robinobioside	Flavonols	9	2.91491	08	D-Xylonic acid	Organic acids	83	5.99301	97	3,4-
kz0018			1.0		kz0051		1.073		kz0008		
19	Salicylic acid	Phenolic acids	7	2.94087	37	Isoscopoletin (6-Hydroxy-7-Methoxycoumarin)	Coumarins	84	6.01299	90	Que
kz0013			1.0		kz0052		1.082		kz0053		
13	SubericAcid	Organic acids	1	2.97894	00	Hesperetin 7-O-neohesperidoside(Neohesperidin)	Flavanones	82	6.03036	75	Isol
kz0002			1.0		kz0016		1.078		kz0012		
01	D-galacitol	Others	9	2.99669	37	Oresbiusin A	Phenolic acids	57	6.04555	93	4-G
kz0004			1.0		kz0004		1.071		kz0000		
84	Vanillin	Phenolic acids	9	3.02751	84	Vanillin	Phenolic acids	48	6.34304	32	Caf
kz0035			1.0		kz0013		1.079		kz0009		
72	Biondnoid I	Flavonols	9	3.04365	40	Procyanidin C2	dins	07	6.51831	15	6-H
kz0052	Luteolin 7-O-neohesperidoside(Lonicerin)	Flavones	1.0	3.10010	kz0009	Epigallocatechin (EGC)	Flavanols	1.078	7.02128	kz0012	4-A

25			5		73		70		92		
kz0005			1.0		kz0025		1.083		km054		
07	Syringic Aldehyde	Phenolic acids	9	3.20996	57	4-O-glucosyl-3,4-dihydroxybenzyl alcohol	Phenolic acids	49	7.49347	8	Dihydroxyacetophenone
km009			1.0		kz0005		1.075		kz0004		
8	Orobol (5,7,3',4'-tetrahydroxyisoflavone)	Isoflavones	2	3.33158	92	Rosmarinyl Glucoside	Phenolic acids	42	7.87865	12	Aucubin
kz0012			1.0		kz0037		1.075		kz0010		
83	6-Aminocaproic acid	Organic acids	3	3.34598	55	Quercetin-3-sambubioside	Flavonols	53	8.08777	25	D-Glucose
kz0003			1.0		kz0009		1.078		kz0030		
02	2-Isopropylmalate	Organic acids	7	3.35369	74	Galocatechin	Flavanols	48	8.19840	98	3-O-Methylgallic acid
kz0030			1.0		km054		1.083		kz0038		
38	3-O-(2-O-Acetyl-β-D-glucopyranosyl) oleanolic acid	Terpenoids	9	3.36272	8	Dihydroquercetin (Taxifolin)	Flavonols	07	8.36915	09	Sieboldin
kz0009			1.0		kz0045		1.082		km126		
04	Tiliroside	Flavonols	9	3.37255	98	1,4-di-O-galloyl-β-D-glucose	Phenolic acids	97	9.74608	9	Di-O-methylgallic acid
kz0021			1.0		kz0009		1.066		kz0000		
97	2'-Hydoxy,5-methoxy Genistein-4',7-O-diglucoside	Isoflavones	5	3.43186	07	Kaempferol-3-O-glucoside-7-O-rhamnoside	Flavonols	50	10.02257	68	Catechin
kz0051			1.0		kz0005		1.079		kz0023		
32	Luteolin-caffeoyl-O-rhamnoside	Flavones	9	3.43414	80	1,6-Di-O-Galloyl-D-Glucose	Phenolic acids	75	10.11315	37	Luteolin
kz0021			1.0		kz0011		1.082		kz0003		
64	Isoluteolin (Orobol)(5,7,3',4'-tetrahydroxyisoflavone)	Isoflavones	6	3.45178	58	D-Pantothenic Acid	Vitamins	55	10.49764	02	2-Isopropylmalate
kz0051			1.0		kz0025		1.081		kz0031		
98	Poncirin(Isosakuranetin-7-neohesperidoside)	Flavanones	9	3.46502	60	6-O-feruloyl-α-glucose	Phenolic acids	82	10.58986	58	Ailanthin
kz0022			1.0		kz0052		1.073		kz0004		
23	Eucommia	Others	8	3.52995	25	Luteolin 7-O-neohesperidoside(Lonicerin)	Flavones	51	10.97861	17	Phloracetophenone
kz0016			1.0		kz0029		1.074		kz0037		
42	5'-Glucopyranosyloxyjasmanic acid	Phenolic acids	9	3.65824	90	Luteolin-7-O-rutinoside	Flavones	35	11.26988	55	Quercetin
kz0038			1.0		kz0038		1.075		kz0052		
72	Lup-12-en-15α,19β-diol-3,11-dioxo-28-oic acid	Terpenoids	9	3.68675	09	Sieboldin	Chalcones	00	11.50213	00	Hesperidin
kz0037			1.0		kz0001		1.083		kz0001		
67	Obtusilin	Terpenoids	9	3.75492	90	Arbutin	Others	51	11.89655	97	E-3,4-Dihydroxybenzoic acid
kz0005			1.0		kz0041		1.080		kz0053		
33	2,5-Dihydroxy benzoic acid O-hexside	Phenolic acids	8	3.77998	71	Kaempferol 3-O-β-D-neohesperidoside	Flavonols	66	12.40464	70	(+)-Catechin
kz0001			1.0		kz0005		1.084		kz0018		
97	E-3,4,5'-Trihydroxy-3'-glucopyranosylstilbene	Others	5	3.81671	57	Glucosyringic Acid	Phenolic acids	53	12.48132	80	ferulic acid
kz0011			1.0		kz0009		1.083		kz0031		
88	Esculin(6,7-DihydroxyCoumarin-6-glucoside)	Coumarins	7	3.92966	05	Kaempferol-3-O-rutinoside(Nicotiflorin)	Flavonols	99	12.59061	47	Clenbutolol
kz0017			1.0		kz0004		1.083		kz0016		
06	Isololiolide	Others	9	4.02706	12	Aucubin	Terpenoids	98	12.86942	37	Orobol
km143			1.0		kz0009		1.084		kz0052		
7	p-Aminobenzoate	Phenolic acids	8	4.05827	06	Kaempferol-3-O-robinobioside(Biorobin)	Flavonols	53	13.11181	02	Dihydroxyacetophenone
kz0004			1.0		kz0031		1.084		kz0037		
75	4-Hydroxybenzoic acid	Phenolic acids	9	4.06836	66	6-Hydroxy-7-methoxycoumarin	Coumarins	51	13.40018	48	7'-O-Methylgallic acid
kz0002	5-Aminolevulinate	Alkaloids	1.0	4.19263	kz0026	Quercetin-3-O-(6''-O-acetyl)-galactoside	Flavonols	1.082	13.52593	km057	Epigallocatechin gallate

31			3		78			37		3	
kz0009			1.0		kz0000			1.066		kz0011	
07	Kaempferol-3-O-glucoside-7-O-rhamnoside	Flavonols	4	4.46098	66	Feruloyl syringic acid	Phenolic acids	42	15.59173	58	D-P
kz0033			1.0		kz0005			1.084		kz0038	
62	Tubuloside C	Phenolic acids	8	4.53828	40	3,4,5-Trimethoxyphenyl-β-D-Glucopyranoside	Phenolic acids	75	16.12622	15	Kae
kz0041			1.0		kz0005			1.076		kz0031	
71	Kaempferol 3-O-β-D-neohesperidoside	Flavonols	8	4.75676	07	Syringic Aldehyde	Phenolic acids	93	16.87097	51	Aila
kz0016			1.0		kz0026			1.082		kz0004	
37	Oresbiusin A	Phenolic acids	9	4.91773	04	Kaempferol-3-O-(6''-acetyl)-glucoside	Flavonols	18	19.48803	24	Erio
kz0010			1.0		kz0036			1.081		kz0012	
84	Ursolic acid	Terpenoids	8	4.95469	93	Quercetin-3-O-(2-O-α-L-rhamnopyranosyl)-β-D-galactopyranoside	Flavonols	99	21.51981	98	L-(+
kz0029			1.0		kz0000			1.084		kz0009	
90	Luteolin-7-O-rutinoside	Flavones	8	5.01229	55	3,4,5-Trimethoxycinnamic acid	Phenolic acids	74	28.30000	73	Epig
kz0008			1.0		kz0013			1.079		kz0046	
86	Myricetin-3-O-arabinoside	Flavonols	5	5.13683	80	Quercetin-O-rutinoside-O-rhamnoside	Flavonols	72	30.39177	30	2α-
km087			1.0		kz0052			1.084		kz0051	
9	Orotic acid	Vitamins	9	5.56304	02	Dihydrokaempferol	Flavanols	65	31.64993	37	Isos
kz0005			1.0		kz0031			1.083		kz0030	
05	Coniferyl alcohol	Phenolic acids	7	5.63649	51	Ailantinol E	Others	78	36.44068	83	5,2'
kz0047			1.0		kz0038			1.081		kz0005	
56	N-Benzylmethylene isomethylamine	Alkaloids	6	5.99230	50	(-)-secoisolariciresinol 4-O-β-D-giucopyranoside	Lignans	58	58.96861	33	2,5-
kz0010			1.0		kz0047			1.079		kz0012	
25	D-Glucurono-6,3-lactone	Others	9	6.15586	03	secoisolariciresinol 9-O-β-D-glucopyranoside	Lignans	67	89.36559	03	Indo
kz0046			1.0		kz0009			1.083		kz0024	
78	Annuionone D	Others	9	6.24479	20	Quercetin-O-rutinoside-hexose	Flavonols	82	90.30000	85	3-m
kz0037			1.0		kz0010			1.081		kz0004	
63	Betulin	Terpenoids	9	6.82881	14	1-Methylhistamine	Others	72	109.82500	84	Van
kz0009			1.0		kz0007			1.083		kz0009	
06	Kaempferol-3-O-robinobioside(Biorobin)	Flavonols	9	6.83350	98	Luteolin-7-O-glucuronide	Flavones	73	116.37209	74	Gall
kz0009			1.0		kz0029			1.084		kz0037	
05	Kaempferol-3-O-rutinoside(Nicotiflorin)	Flavonols	9	6.87266	76	Scutellarin(Scutellarein-7-O-glucuronide)	Flavones	55	126.76617	18	2,3-
kz0015			1.0		kz0002			1.083		kz0040	
86	Isotamarixin	Flavonols	8	6.96179	78	Indole 3-acetic acid (IAA)	Alkaloids	78	127.50000	35	3-In
kz0011			1.0		kz0017			1.083		kz0011	
03	6-Hydroxynicotinic acid	Alkaloids	8	7.14787	02	Kaempferol-3-O-β-D-glucuronide	Flavonols	55	136.59794	99	Indo
kz0026			1.0		kz0007			1.084		kz0013	
65	Betulinic acid	Terpenoids	3	8.36538	97	Tetahydroxy-flavone-7-O-β-D-glucuronide	Flavones	35	138.95170	19	D-G
kz0011			1.0		kz0030			1.083		kz0005	
13	Lumichrome	Alkaloids	8	8.55081	98	3-O-Digalloyl quinic acid	Phenolic acids	05	215.55556	07	Syri
kz0005			1.0		kz0005			1.084		kz0010	
44	3-O-p-Coumaroyl quinic acid	Phenolic acids	9	10.46030	96	β-D-Furanofructosyl-α-D-(6-mustard acyl)glucoside	Phenolic acids	37	257.25000	84	Urs
kz0029	Scutellarin(Scutellarein-7-O-glucuronide)	Flavones	1.0	11.30743	kz0018	vnilloylcaffeoyltartaric acid	Phenolic acids	1.084	263.00000	kz0010	Gall

76			9	
kz0007			1.0	
98	Luteolin-7-O-glucuronide	Flavones	9	11.79213
kz0013			1.0	
19	D-Galacturonic acid(Gal A)	Organic acids	9	11.97323
kz0050			1.0	
37	Caffeoylferuloylshikimic?acid	Phenolic acids	9	12.41192
kz0017			1.0	
02	Kaempferol-3-O-β-D-glucuronide	Flavonols	9	13.84675
kz0036			1.0	
93	Quercetin-3-O-(2-O-α-L-rhamnopyranosyl)-β-D-galactopyranoside	Flavonols	9	14.14724
kz0011			1.0	
99	Indole-3-carboxaldehyde	Alkaloids	9	14.82988
kz0020			1.0	
65	4-α-L-Rhamnopyranosyl-ellagic acid	Phenolic acids	9	15.09756
kz0007			1.0	
97	Tetahydroxy-flavone-7-O-β-D-glucuronide	Flavones	9	16.12777
kz0012			1.0	
03	Indole-3-carboxylic acid	Alkaloids	9	17.49424
kz0005			1.0	
15	Sinapinaldehyde	Phenolic acids	9	17.95407
kz0001			1.0	
45	Formononetin	Isoflavones	9	18.39138
kz0004			1.0	
66	4-Hydroxybenzaldehyde	Phenolic acids	9	18.50517
kz0046			1.0	
67	Myricetin-O-rhamnoside	Flavonols	9	22.67361
kz0010			1.0	
90	Methoxyursolic acid	Terpenoids	9	24.69359
kz0013			1.0	
80	Quercetin-O-rutinoside-O-rhamnoside	Flavonols	8	24.71264
km093			1.0	
4	Quercetin 4'-O-glucoside (Spiraeoside)	Flavonols	9	30.06167
kz0029			1.0	
36	Silibinin	Flavanols	9	32.20000
kz0008			1.0	
90	Quercetin-7-O-Glucoside	Flavonols	9	32.38600
kz0031			1.0	
66	6-Hydroxy-7-methoxycoumarin	Coumarins	9	58.66864
kz0005			1.0	
00	Riboprine	Phenolic acids	9	63.19018
kz0044	Luteolin-O-rutinoside-O-rhamnoside	Flavones	1.0	78.87500

64			28	
kz0033			1.083	
62	Tubuloside C	Phenolic acids	37	285.89909
kz0000			1.083	
47	Mandelic acid	Phenolic acids	96	431.75000
kz0005			1.084	
17	Sinapyl alcohol	Phenolic acids	58	483.50000
kz0005			1.085	
05	Coniferyl alcohol	Phenolic acids	01	502.00000
kz0021			1.084	
44	Angelicin	Coumarins	74	645.75000
kz0005			1.084	
02	Coniferaldehyde	Phenolic acids	75	699.25000
kz0008			1.084	1325.0000
72	Myricetin	Flavonols	97	0
kz0051			1.084	1340.0000
33	Luteolin-O-glucuronate-O-rhamnoside	Flavones	82	0
kz0009			1.084	1877.5000
19	Robinin(Kaempferol-3-O-gal-rham-7-O-rham)	Flavonols	97	0
kz0044			1.084	1907.5000
25	Luteolin-O-rutinoside-O-rhamnoside	Flavones	96	0
kz0037			1.084	2247.5000
97	3-Prenyl-4-O-β-D-glucopyranosyloxy-4-hydroxyl-benzoic acid	Phenolic acids	92	0
kz0022			1.084	2572.5000
95	Syringaresinol-4'-O-β-D-monO-glucoside	Lignans	70	0
km143			1.084	2955.0000
7	p-Aminobenzoate	Phenolic acids	99	0
kz0029			1.084	5390.0000
12	Santamarin	Terpenoids	92	0
kz0029			1.084	7915.0000
36	Silibinin	Flavanols	99	0
kz0000			1.084	9030.0000
78	1'-O-β-D-(3,4-Dihydroxyphenethyl)-O-caffeoyl-glucoside	Phenolic acids	99	0
kz0042			1.085	18800.000
60	Corosolic acid	Terpenoids	00	00
km093			1.085	155750.00
6	Quercetin 7-O-β-D-Glucuronide	Flavonols	01	000

74	
kz0007	
98	Luteolin-7-O-glucuronide
kz0029	
76	Scutellarein
kz0007	
97	Tetahydroxy-flavone-7-O-β-D-glucuronide
kz0017	
02	Kaempferol-3-O-β-D-glucuronide
kz0037	
96	1'-O-β-D-(3,4-Dihydroxyphenethyl)-O-caffeoyl-glucoside
kz0009	
14	6-Hydroxy-7-methoxycoumarin
kz0000	
52	Ethyl 3,4-dihydroxybenzoate
kz0000	
55	3,4-Dihydroxybenzoic acid
kz0047	
03	secoisobutyric acid
kz0037	
28	Geraniol
kz0009	
20	Quercetin 4'-O-glucoside (Spiraeoside)
kz0029	
75	Acanthoside
kz0010	
14	1-Methoxy-2-methyl-3-(4-methoxyphenyl)propan-1-one
kz0008	
72	Myricetin-O-rhamnoside
kz0007	
33	Delphinidin
kz0005	
75	3,5-Dihydroxybenzoic acid
kz0047	
68	monoterpene
kz0045	
95	Geraniol
kz0035	
04	Geraniol
kz0010	
76	Ethyl 3,4-dihydroxybenzoate
kz0029	Saniclorin

RSS-F/RSL-F					RLM-F/RDP-F					RLM-F/RSL-F					RDP-F/RSL-F				
Ind ex	Compounds	Class	VI P	Fold _Ch ang	Ind ex	Compounds	Class	VI P	Fold _Ch ang	Ind ex	Compounds	Class	VI P	Fold _Ch ang	Ind ex	Compounds	Class	VI P	Fold _Ch ang

e				e				e				e			
kz0		1.		kz0		1.		kz0		1.		kz0		1.	
05	Pheno	07		03	Pheno	07		01	Proant	08		01	Proant	09	
04	lic	38	0.00	79	lic	11	0.00	33	hocya	18	0.00	33	hocya	24	0.00
9	Salireposide	acids	7 005	4	Syringic Aldehyde-glucoside	acids	6 041	2	Procyanidin B2	nidins	9 005	2	Procyanidin B2	nidins	7 008
kz0		1.		kz0		1.		kz0		1.		kz0		1.	
04	7S,8R-threo-3',9,9'-trihydroxy-3-		07	03	3-Prenyl-4-O-β-D-	Pheno	07	04		08		01	Proant	09	
69	methoxy-4',7-epoxy-neolignan-	Lignan	40 0.00	79	glucopyranosyloxy-4-hydroxyl-	lic	13 0.00	26	Terpe	19	0.00	33	hocya	24	0.00
8	4-O-α-L-rhamnopyranoside	s	0 006	7	benzoic acid	acids	1 044	0	Corosolic acid	noids	2 005	5	Procyanidin B1	nidins	8 010
kz0		1.		kz0		1.		kz0		1.		kz0		1.	
00	Pheno	07		04		07		01	Proant	08		01	Proant	09	
53	lic	33	0.00	42	Luteolin-O-rutinoside-O-	Flavon	14 0.00	33	hocya	18	0.00	33	hocya	24	0.00
0	Brevifolin carboxylic acid	acids	3 021	5	rhamnoside	es	4 052	5	Procyanidin B1	nidins	7 006	3	Procyanidin B3	nidins	7 011
kz0		1.		kz0		1.		kz0		1.		kz0		1.	
01	Proant	07		00		07		01	Proant	08		00	Pheno	09	
33	hocya	39	0.00	91	Robinin(Kaempferol-3-O-gal-	Flavon	14 0.00	33	hocya	18	0.00	53	lic	19	0.00
2	Procyanidin B2	nidins	9 022	9	rham-7-O-rham)	ols	7 053	3	Procyanidin B3	nidins	8 006	0	Brevifolin carboxylic acid	acids	4 019
kz0		1.		kz0		1.		kz0		1.		kz0		1.	
00	Antho	07		05		07		04		08		00	Antho	09	
70	cyanin	39	0.00	13	Luteolin-O-glucuronate-O-	Flavon	11 0.00	70	secoisolariciresinol 9-O-β-D-	Lignan	18 0.00	70	cyanin	24	0.00
4	Cyanidin-O-syringic acid	s	3 025	3	rhamnoside	es	8 075	3	glucopyranoside	s	4 020	4	Cyanidin-O-syringic acid	s	9 020
kz0		1.		kz0		1.		kz0		1.		kz0		1.	
01	Proant	07		02		07		00	Pheno	08		00		09	
33	hocya	39	0.00	14		Coum	10 0.00	59	lic	19	0.00	97	Flavan	25	0.00
5	Procyanidin B1	nidins	7 028	4	Angelicin	arins	9 155	2	Rosmarinyl Glucoside	acids	4 024	4	Gallocatechin	ols	3 027
kz0		1.		kz0		1.		kz0		1.		kz0		1.	
01	Proant	07		05		Pheno	07	00		Antho	08	04		09	
33	hocya	39	0.00	04		lic	12 0.00	70		cyanin	19 0.00	26	Terpe	23	0.00
3	Procyanidin B3	nidins	5 030	9	Salireposide	acids	2 185	4	Cyanidin-O-syringic acid	s	4 024	0	Corosolic acid	noids	6 028
kz0		1.		kz0		1.		kz0		1.		kz0		1.	
03		07		04	Quercetin 3-O-β-D-		07	03		Pheno	08	00		Antho	09
86	3β-Hydroxy-28-norurs-17,19,21-	Terpe	37 0.00	17	xylopyranosyl(1→2)-β-D-	Flavon	14 0.00	79		lic	15 0.00	70	Delphinidin-3-O-	cyanin	07 0.00
2	trien	noids	6 038	2	galactopyranoside	ols	4 193	4	Syringic Aldehyde-glucoside	acids	9 041	3	glucoside (Mirtillin)	s	3 029
kz0		1.				1.		kz0		1.		kz0		1.	
05		07		km		07		01	Proant	08		04		09	
37	lyoniresinol-9'-O-β-D-	Lignan	39 0.00	08	Myricetin 3-O-rhamnoside	Flavon	09 0.00	34		hocya	19 0.00	70	secoisolariciresinol 9-O-	Lignan	23 0.00
7	xylopyranoside	s	6 039	18	(Myricitrin)	ols	4 467	0	Procyanidin C2	nidins	3 044	3	β-D-glucopyranoside	s	8 032
kz0		1.		kz0		1.		kz0		1.		kz0		1.	
00	Antho	07		01		07		00		08		03	Kampferol 3-O-(6''-		09
70	Delphinidin-3-O-glucoside	cyanin	39 0.00	17		Coum	05 0.00	97		Flavan	18 0.00	82	galloyl)-β-D-	Flavon	22 0.00
3	(Mirtillin)	s	2 057	7	Scoparone	arins	7 496	4	Gallocatechin	ols	9 056	1	galactopyranoside	ols	1 038
kz0	Homogentisic acid	Pheno	1. 0.00	kz0	Quercetin-O-pentosyl-O-	Flavon	1. 0.00	kz0	Sieboldin	Chalco	1. 0.00	kz0	Kampferol 3-O-(2''-	Flavon	1. 0.00

00		lic	07	083	03	rhamnoside-O-glucoside	ols	06	748	03		nes	08	064	03	galloyl)-β-D-	ols	09	040	
05		acids	37		83			58		80			16		82	galactopyranoside		24		
0			9		3			9		9			7		3			5		
kz0			1.		kz0			1.		kz0			1.		kz0			1.		
04			07		03			07		02		Pheno	08		00			09		
77	(2R)-Pinocembrin-7-	Flavan	39	0.00	16		Coum	14	0.01	55	4-O-glucosyl-3,4-	lic	18	0.00	97		Flavan	24	0.00	
4	neohesperidoside	ones	1	084	6	6-Hydroxy-7-methoxycoumarin	arins	4	828	7	dihydroxybenzyl alcohol	acids	6	070	3	Epigallocatechin (EGC)	ols	1	046	
kz0			1.		kz0			1.		kz0			1.		kz0			1.		
03		Pheno	07		03		Pheno	07		05			08		00		Pheno	09		
71	Maplexin C (2,3-Di-O-Galloyl-1,5-	lic	37	0.00	36		lic	12	0.01	13	Luteolin-O-glucuronate-O-	Flavon	17	0.00	59		lic	21	0.00	
7	Anhydro-D-Glucitol)	acids	8	089	2	Tubuloside C	acids	3	984	3	rhamnoside	es	2	075	2	Rosmarinyl Glucoside	acids	1	068	
kz0			1.		kz0			1.		kz0			1.		kz0			1.		
02			07		03	Quercetin-3-O-(2-O-α-L-		06		00			08		00			09		
82		Flavon	37	0.00	69	rhamnopyranosyl)-β-D-	Flavon	88	0.03	87		Flavon	19	0.00	18	2-Deoxyribose	1-	Other	24	0.00
0	Limocitrin 7-glucoside	ols	6	091	3	galactopyranoside	ols	7	826	2	Myricetin	ols	1	075	6	phosphate	s	6	079	
kz0			1.		kz0			1.		kz0			1.		kz0			1.		
01			07		01			06		00			08		03			09		
19		Coum	38	0.00	38	Quercetin-O-rutinoside-O-	Flavon	65	0.04	97		Flavan	19	0.00	80		Chalco	24	0.00	
1	4-hydroxycoumarin di-glucoside	arins	8	092	0	rhamnoside	ols	0	176	3	Epigallocatechin (EGC)	ols	2	087	9	Sieboldin	nes	0	079	
kz0			1.		kz0			1.		kz0			1.		kz0			1.		
02		Pheno	07		03		Pheno	06		00		Antho	07		03	Maplexin C (2,3-Di-O-	Pheno	09		
55		lic	34	0.00	09		lic	97	0.04	70	Delphinidin-3-O-glucoside	cyanin	73	0.00	71	Galloyl-1,5-Anhydro-D-	lic	18	0.00	
1	Isosinapic acid-hexoside	acids	6	103	8	3-O-Digalloyl quinic acid	acids	3	336	3	(Mirtillin)	s	8	114	7	Glucitol)	acids	0	084	
			1.		kz0			1.		kz0			1.		kz0			1.		
km			07		02			06		02		Pheno	08		00		Pheno	09		
06	Hesperetin	Flavan	38	0.00	91		Terpe	71	0.05	55		lic	19	0.00	54	1-O-p-Coumaroyl quinic	lic	24	0.00	
40	(Hesperidin)	ones	7	110	2	Santamarin	noids	0	798	1	Isosinapic acid-hexoside	acids	0	135	6	acid	acids	6	085	
kz0			1.		kz0			1.		kz0			1.		kz0			1.		
00		Pheno	07		02			07		02			08		00		Pheno	09		
54		lic	38	0.00	93		Flavan	10	0.07	14		Coum	16	0.00	51		lic	24	0.00	
6	1-O-p-Coumaroyl quinic acid	acids	6	110	6	Silibinin	ols	1	037	4	Angelicin	arins	0	155	7	Sinapyl alcohol	acids	3	085	
kz0			1.		kz0			1.		kz0			1.		kz0			1.		
02			07		01			07		00		Pheno	08		00			09		
20		Flavan	39	0.00	31		Organi	12	0.07	55		lic	09	0.00	03		Alkaloi	25	0.00	
2	Farrerol 7-O-glucoside	ones	7	118	8	Quinic Acid	c acids	1	125	5	1-Caffeoylquinic acid	acids	6	167	2	Caffeoylagmatine	ds	3	094	
kz0			1.		kz0			1.		kz0			1.		kz0			1.		
00		Pheno	07		00			06		00		Pheno	08		00			09		
55	Neochlorogenic acid(5-O-	lic	35	0.00	90	Kaempferol-3-O-glucoside-7-O-	Flavon	22	0.08	05		lic	09	0.00	41		Chalco	23	0.00	
3	Caffeoylquinic acid)	acids	5	119	7	rhamnoside	ols	5	636	0	Homogentisic acid	acids	3	172	9	Phlorizin	nes	4	094	
kz0			1.		kz0		Pheno	1.		kz0			1.		kz0		Pheno	1.		
02		Flavon	07	0.00	04		lic	06	0.08	03		Terpe	08	0.00	00	Neochlorogenic acid(5-	lic	09	0.00	
97	Pratensein 7-O-glucopyranoside	es	40	142	59	1,4-di-O-galloyl-β-D-glucose	acids	48	697	37	Swertiamarin	noids	15	185	55	O-Caffeoylquinic acid)	acids	22	096	

8			2		8		9		0		1		3		9					
kz0			1.		kz0		1.		kz0		1.		kz0		1.					
00			07		02		07		05	Pheno	08		00	Pheno	09					
18		Other	39	0.00	67	Quercetin-3-O-(6''-O-acetyl)-	Flavon	12	0.09	04	lic	16	0.00	05	lic	25	0.00			
6	2-Deoxyribose 1-phosphate	s	3	143	8	galactoside	ols	1	343	9	Salireposide	acids	4	185	0	Homogentisic acid	acids	3	102	
kz0			1.		kz0		1.		kz0		1.		kz0		1.					
03			07		02		06		00	Pheno	08		00		Pheno	09				
82	Kampferol 3-O-(2''-galloyl)-β-D-	Flavon	38	0.00	99		Flavon	49	0.09	51	lic	15	0.00	61	1,3,4,6-Tetra-O-Galloyl-	lic	09	0.00		
3	galactopyranoside	ols	7	150	0	Luteolin-7-O-rutinoside	es	0	770	7	Sinapyl alcohol	acids	2	207	2	D-Glucose	acids	6	103	
kz0			1.		kz0		1.		kz0		1.		kz0		1.					
00		Pheno	07		00			07		02		08		00			09			
55		lic	38	0.00	90	Kaempferol-3-O-	Flavon	04	0.10	36		Other	16	0.00	20		Other	24	0.00	
5	1-Caffeoylquinic acid	acids	9	154	5	rutinoside(Nicotiflorin)	ols	5	020	7	Methyl dioxindole-3-acetate	s	8	316	7	Cannabiscitrin	s	1	105	
			1.		kz0		1.		kz0		1.		kz0		1.					
km			07		00		07		03		Pheno	08		03		Pheno	09			
08	Myricetin 3-O-rhamnoside	Flavon	38	0.00	90	Kaempferol-3-O-	Flavon	07	0.10	63	lic	16	0.00	63		lic	23	0.00		
18	(Myricitrin)	ols	5	156	6	robinobioside(Biorobin)	ols	0	134	6	Plantainoside A	acids	1	342	6	Plantainoside A	acids	3	106	
kz0			1.		kz0		1.		kz0		1.		kz0		1.					
03		Pheno	07		05		06		01		Pheno	08		02		Pheno	09			
71	Maplexin D (2,4-Di-O-Galloyl-	lic	31	0.00	22	Luteolin 7-O-	Flavon	54	0.10	86	lic	11	0.00	55	4-O-glucosyl-3,4-	lic	24	0.00		
6	1,5-Anhydro-D-Glucitol)	acids	8	156	5	neohesperidoside(Lonicerin)	es	5	190	4	vnilloylcaffeoyltartaric acid	acids	4	380	7	dihydroxybenzyl alcohol	acids	8	110	
kz0			1.		kz0		1.		kz0		1.		kz0		1.					
01		Pheno	07		04		06		04		08		05		09					
82		lic	38	0.00	17	Kaempferol 3-O-β-D-	Flavon	59	0.10	77	(2R)-Pinocembrin-7-	Flavan	19	0.00	37	lyoniresinol-9'-O-β-D-	Lignan	24	0.00	
4	cinnamoyltartaric acid	acids	8	168	1	neohesperidoside	ols	5	541	4	neohesperidoside	ones	0	396	7	xylopyranoside	s	5	115	
kz0			1.		kz0		1.		kz0		1.		kz0		1.					
03			07		00		06		02		08		03		09					
82	Kampferol 3-O-(6''-galloyl)-β-D-	Flavon	39	0.00	87		Flavon	84	0.11	93		Flavan	17	0.00	71	Maplexin D (2,4-Di-O-	Pheno	09		
1	galactopyranoside	ols	5	172	2	Myricetin	ols	5	547	6	Silibinin	ols	7	407	6	Galloyl-1,5-Anhydro-D-	lic	03	0.00	
kz0			1.		kz0		1.		kz0		1.		kz0		1.		Glucitol)	acids	9	125
03		Pheno	07		00		Pheno	06		km		08		00		Pheno	09			
79		lic	30	0.00	58		lic	48	0.11	08	Myricetin 3-O-rhamnoside	Flavon	12	0.00	55		lic	25	0.00	
4	Syringic Aldehyde-glucoside	acids	6	182	0	1,6-Di-O-Galloyl-D-Glucose	acids	3	953	18	(Myricitrin)	ols	4	467	5	1-Caffeoylquinic acid	acids	2	128	
kz0			1.		kz0		1.		kz0		1.		kz0		1.					
03		Pheno	07		03		07		00		07		03		09					
63		lic	35	0.00	85	(-)-secoisolariciresinol 4-O-β-D-	Lignan	04	0.12	97		Flavan	96	0.00	14		Lignan	22	0.00	
6	Plantainoside A	acids	9	185	0	giucopyranoside	s	0	586	1	Catechin	ols	4	476	7	Clemaphenol A	s	4	131	
kz0			1.		kz0		1.		kz0		1.		kz0		1.					
00		Pheno	07		01		07		01		Proant	07		01		Pheno	09			
59		lic	29	0.00	02		Other	07	0.13	33		hocya	81	0.00	86	vnilloylcaffeoyltartaric	lic	22	0.00	
2	Rosmarinyl Glucoside	acids	4	188	0	4-Methyl-5-thiazoleethanol	s	8	333	1	Procyanidin A1	nidins	4	564	4	acid	acids	7	150	
kz0	Procyanidin A1	Proant	1.	0.00	kz0	(2R)-Pinocembrin-7-	Flavan	1.	0.18	kz0	Neochlorogenic acid(5-O-	Pheno	1.	0.00	kz0	Procyanidin C2	Proant	1.	0.00	

7		8		2		1		2		8		0		6					
kz0		1.		kz0		1.		kz0		1.		kz0		1.					
02		07		02		03		03		08		04	Pheno	09					
66		39	0.00	19	2'-Hydoxy,5-methoxy Genistein-	Isoflav	42	0.27	85	(-)-secoisolariciresinol 4-O-β-D-	Lignan	15	0.03	76	lic	22	0.00		
8	Ovalifoliolides B	noids	9	597	6 O-rhamnosyl-glucoside	ones	3	416	0	giucopyranoside	s	4	856	8	monogalloyl-diglucose	acids	2	507	
kz0		1.		kz0		1.		kz0		1.		kz0		1.					
00		07		00		Pheno	07		04		07	00		00	Pheno	09			
97		30	0.00	55		lic	05	0.27	42	Luteolin-O-rutinoside-O-	Flavon	45	0.04	57	3,5-Di-O-galloylshikimic	lic	21	0.00	
3	Epigallocatechin (EGC)	ols	9	608	7 Glucosyringic Acid	acids	8	987	5	rhamnoside	es	5	135	5	acid	acids	3	559	
kz0		1.		kz0		1.		kz0		1.		kz0		1.					
00		07		00		Pheno	07		01		08	03		03	Pheno	08			
41		28	0.00	54	3,4,5-Trimethoxyphenyl-β-D-	lic	01	0.28	02		Other	17	0.04	10		lic	81	0.00	
9	Phlorizin	nes	9	617	0 Glucopyranoside	acids	8	576	0	4-Methyl-5-thiazoleethanol	s	0	757	6	Cuspinin	acids	2	573	
kz0		1.		kz0		1.		kz0		1.		kz0		1.					
05		07		00		06		00		Pheno	08	00		00					
37	5'-methoxyisolariciresinol-9'-O-	Lignan	29	0.00	79	Tetahydroxy-flavone-7-O-β-D-	Flavon	95	0.28	55		lic	00	0.04	87		Flavon	23	0.00
6	β-D-xylopyranoside	s	5	624	7 glucuronide	es	5	735	7	Glucosyringic Acid	acids	6	779	2	Myricetin	ols	3	654	
kz0		1.		kz0		1.		kz0		1.		kz0		1.					
03		07		01		Proant	04		00		07	00		00					
37		21	0.00	34		hocya	50	0.29	91	Robinin(Kaempferol-3-O-gal-	Flavon	29	0.04	96	Afzelechin(3,5,7,4'-	Flavan	87	0.00	
0	Swertiamarin	noids	4	627	0 Procyanidin C2	nidins	0	284	9	rham-7-O-rham)	ols	3	812	9	Tetrahydroxyflavan)	ols	8	666	
kz0		1.		kz0		1.		kz0		1.		kz0		1.					
03		07		00		05		02		07		04		04	5,7,3',4',5'-				
80		18	0.00	79	Apigenin	7-O-	Flavon	02	0.29	91		Terpe	91	0.04	66	pentahydroxydihydroflav	Flavan	04	0.00
9	Sieboldin	nes	5	741	1 glucoside(Cosmosiin)	es	4	371	2	Santamarin	noids	5	907	5	one	ones	7	722	
kz0		1.		kz0		1.		kz0		1.		kz0		1.					
04		07		02		06		km		08		02		02	Penduletin (5,4'-				
66	5,7,3',4',5'-	Flavan	32	0.00	97	Scutellarin(Scutellarein-7-O-	Flavon	62	0.29	05		Flavon	05	0.05	96	Dihydroxy-3,6,7-	Flavan	22	0.00
5	pentahydroxydihydroflavone	ones	7	760	6 glucuronide)	es	1	482	48	Dihydroquercetin (Taxifolin)	ols	4	264	2	trimethoxyflavone)	es	9	746	
kz0		1.		kz0		1.		kz0		1.		kz0		1.					
00		Pheno	06		01		06		02		Pheno	07		01					
55	4-O-Caffeoyl quinic acid	lic	55	0.00	11		Alkaloi	35	0.30	56		lic	67	0.05	69		Flavon	20	0.00
2	(criptochlorogenic acid)	acids	8	774	3 Lumichrome	ds	2	343	0	6-O-feruloyl-α-glucose	acids	2	527	5	wogonoside	es	9	759	
kz0		1.		kz0		1.		kz0		1.		kz0		1.					
03		Pheno	07		00		06		03		Pheno	08		km					
10		lic	29	0.00	29		Organi	34	0.30	51		lic	09	0.05	04	Afzelechin (3,5,7,4'-	Flavan	20	0.00
6	Cuspinin	acids	1	787	6 Citramalate	c acids	1	467	9	Cimidahurinine	acids	3	670	36	Tetrahydroxyflavan)	ones	0	791	
kz0		1.		kz0		1.		kz0		1.		kz0		1.					
02		07		00		06		00		Pheno	07	02		02					
96		37	0.00	79		Flavon	97	0.30	05		lic	89	0.05	97	Acacetin-7-O-	Flavon	21	0.00	
0	Eupatilin	es	5	806	8 Luteolin-7-O-glucuronide	es	9	871	8	Protocatechuic acid O-glucoside	acids	5	954	5	glucuronide	es	1	828	
kz0	Caffeoylagmatine	Alkaloi	1.	0.00	kz0	Kaempferol-3-O-β-D-	Flavon	1.	0.31	kz0	1,6-Di-O-Galloyl-D-Glucose	Pheno	1.	0.06	kz0	Quercetin-3-O-(2''-	Flavon	1.	0.01

9			4		7			6		6		0		4		4	
kz0			1.		kz0			1.		kz0		1.		kz0		1.	
03			06		00		Pheno	06		00		Pheno	05	02		09	
74		Terpe	06	0.24	48		lic	93	2.51	52		lic	60	0.23	82	Isorhamnetin-7-O-	
8	7'-O-Sinapoyljasminoside L	noids	5	629	4	Vanillin	acids	9	658	2	Methyl sinapate	acids	4	465	9	glucoside	
kz0			1.					1.		kz0		1.		kz0		1.	
04			05		km			03		00		Pheno	06	02		08	
16		Flavon	53	0.24	00	Genistein	(4',5,7-	Isoflav	99	2.51	59	β-D-Furanofructosyl-α-D-(6-	lic	44	0.23	33	Luteolin-7-O-β-D-
9	Isorhamnetin 3-O-β-D-Glucoside	ols	8	942	81	Trihydroxyisoflavone)	ones	6	868	6	mustard acyl)glucoside	acids	2	567	7	gentiobioside	
kz0			1.		kz0			1.		kz0		1.		kz0		1.	
05			06		02			04		00		08		04		02	
08	Tricetin?4'-methyl?ether-3'-O-β-	Flavon	09	0.25	93		Terpe	12	2.53	90	Kaempferol-3-O-	Flavon	04	0.24	03		
8	D-glucoside	ols	5	693	3	Ixerin D	noids	2	411	5	rutinoside(Nicotiflorin)	ols	1	010	5	3-Indoleacrylic acid	
kz0			1.		kz0			1.		kz0		1.		kz0		1.	
04			07		01		Pheno	03		02		07		02		08	
17		Flavon	25	0.25	86		lic	82	2.53	97	Scutellarin(Scutellarein-7-O-	Flavon	87	0.26	29	Syringaresinol-4'-O-β-D-	
0	Rhamnetin 3-O-β-D-Glucoside	ols	2	955	4	vnilloylcaffeoyltartaric acid	acids	9	707	6	glucuronide)	es	3	272	5	monO-glucoside	
kz0			1.		kz0			1.		kz0		1.		kz0		1.	
00		Pheno	06		03	Kaempferol	3-O-(6''-trans-p-	04		03		06		05		08	
54		lic	61	0.25	81	Coumaroyl)-β-D-	Flavon	49	2.53	81	Kaempferol-malonyl-3-O-	Flavon	35	0.26	20		
8	Trans-3-O-p-coumaric quinic acid	acids	8	995	5	glucopyranoside	ols	9	941	1	glucoside	ols	1	371	2	Dihydrokaempferol	
kz0			1.		kz0			1.		kz0		1.		kz0		1.	
02			07		01			06		05		Pheno	07		03		
85		Alkaloi	30	0.26	08		Terpe	81	2.54	18		lic	38	0.26	51	5-(2-Hydroxyethyl)-2-O-	
3	Dihydroisopelletierine	ds	8	160	9	2-Hydroxyoleanolic acid	noids	8	107	6	Dunalianoside C	acids	3	398	8	glucosylohenol	
kz0			1.		kz0			1.		kz0		1.		kz0		1.	
00		Pheno	06		00			05		02		05		02		08	
56		lic	83	0.26	24		Alkaloi	98	2.54	48	1,4,8-trihydroxy naphthalene-1-	Quino	77	0.26	99	Quercetin-7-O-(6'-O-	
0	Trihydroxycinnamoylquinic acid	acids	5	399	0	Trans-Zeatin-9-N-Glucoside	ds	5	890	6	O-β-D-glucopyranoside	nes	6	486	5	malonyl)-β-D-glucoside	
kz0			1.		kz0			1.		kz0		1.		kz0		1.	
02			07		04			06		02		06		03		Pheno	
82		Flavon	00	0.26	62		Terpe	90	2.55	99		Flavon	82	0.26	71		
9	Isorhamnetin-7-O-glucoside	ols	8	873	7	alphitolic acid	noids	2	738	0	Luteolin-7-O-rutinoside	es	6	574	4	6-O-Galloyl-β-D-glucose	
kz0			1.		kz0			1.		kz0		1.		kz0		1.	
04			05		01			05		01		07		03		Pheno	
73	4,7,9,9'-Tetrahydroxy-3,3'-	Other	02	0.27	29		Organi	23	2.56	70	Kaempferol-3-O-β-D-	Flavon	87	0.27	49		
8	dimethoxy-8-O-4'-neolignan	s	6	100	7	(Rs)-Mevalonic acid	c acids	6	548	2	glucuronide	ols	7	004	7	3-O-Galloyl-β-D-glucose	
kz0			1.		kz0			1.		kz0		1.		kz0		1.	
00			06		01			06		00		08		03		Pheno	
14		Flavon	37	0.27	08	3,24-Dihydroxy-17,21-	Terpe	83	2.58	79		Flavon	06	0.27	10		
7	Methylquercetin O-hexoside	ols	4	129	8	semiacetal-12(13)oleanolic fruit	noids	6	065	8	Luteolin-7-O-glucuronide	es	8	298	0	5-O-Galloylhamamelose	
kz0	6-methoxykaempferol-3-O-	Flavon	1.	0.27	kz0	2-Methylsuccinic acid	Organi	1.	2.59	kz0	Tetahydroxy-flavone-7-O-β-D-	Flavon	1.	0.27	kz0	Parthenolide	

02	glucoside	ols	06	726	01		c acids	06	091	00	glucuronide	es	08	448	02		noids	08	970
98			53		28			35		79			05		91			87	
2			8		5			7		7			3		0			7	
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
02			03		03			07		00			05		04			08	
97		Flavon	56	0.27	54		Other	07	2.59	90	Kaempferol-3-O-glucoside-7-O-	Flavon	98	0.27	23		Terpe	73	0.11
7	Diosmetin-7-O-galactoside	es	3	967	9	Hederagenin	s	3	662	7	rhamnoside	ols	2	753	1	Isothankunic acid	noids	8	855
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
00			07		00			06		04			06		03		Pheno	08	
23		Alkaloi	20	0.28	77		Flavon	74	2.63	73	4,7,9,9'-Tetrahydroxy-3,3'-	Other	28	0.27	72		lic	69	0.11
2	O-Phosphocholine	ds	8	465	9	Diosmetin	es	7	377	8	dimethoxy-8-O-4'-neolignan	s	2	816	0	Maplexin H	acids	4	930
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
05			00		02			05		00	Catechin-(7,8-bc)-4 α -(3,4-		06		01			09	
37		Lignan	56	0.28	97		Flavon	95	2.63	97	dihydroxyphenyl)-dihydro-2-	Flavan	86	0.28	29		Organi	14	0.11
3	Lyoniresinol	s	5	521	7	Diosmetin-7-O-galactoside	es	2	654	9	(3H)-pyranone	ols	6	858	8	L-(+)-Tartaric acid	c acids	4	931
			1.					1.		kz0			1.		kz0			1.	
km			06		km			04		00			08		02			07	
13		Flavon	64	0.29	12		Flavon	42	2.64	29		Organi	02	0.29	94		Flavon	97	0.12
07	Isorhamnetin 5-O-hexoside	ols	8	444	11	Chrysoeriol 7-O-hexoside	es	1	192	1	2-Picolinic acid	c acids	3	034	9	Hispidulin	es	5	037
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
05			07		01			06		00			07		00			09	
05		Flavon	00	0.29	15		Vitami	04	2.65	99		Lignan	90	0.30	88		Flavon	03	0.12
4	Chrysin-7-glucoside	es	9	513	7	4-Pyridoxic acid	ns	2	940	5	Syringaresinol	s	5	456	1	Avicularin	ols	9	135
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
00		Pheno	03		00			06		00			07		00			09	
52		lic	10	0.29	81		Flavon	89	2.70	90		Flavon	71	0.30	24	Trans-Zeatin-9-N-	Alkaloi	05	0.12
2	Methyl sinapate	acids	5	616	2	Tricin O-saccharic acid	es	3	166	9	Quercetin-3-O-rutinoside (Rutin)	ols	3	930	0	Glucoside	ds	5	318
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
03			05		00			04		00			08		01		Pheno	08	
10		Flavon	77	0.29	27		Alkaloi	24	2.76	24		Alkaloi	00	0.31	88	feruloylsinapoyltartaric	lic	43	0.12
9	Mearnsitrin	es	1	632	8	Indole 3-acetic acid (IAA)	ds	7	863	0	Trans-Zeatin-9-N-Glucoside	ds	1	399	0	acid	acids	7	480
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
02			06		00			05		00	Catechin-(7,8-bc)-4 β -(3,4-		07		02		Pheno	08	
48	1,4,8-trihydroxy naphthalene-1-	Quino	03	0.29	30		Organi	96	2.78	97	dihydroxyphenyl)-dihydro-2-	Flavan	88	0.31	56		lic	24	0.12
6	O- β -D-glucopyranoside	nes	8	763	0	DL-Glyceraldehyde 3-phosphate	c acids	7	026	8	(3H)-pyranone	ols	2	877	0	6-O-feruloyl- α -glucose	acids	3	725
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
03			05		04			05		00			07		03			01	
11		Organi	53	0.30	02		Alkaloi	72	2.79	28		Organi	25	0.32	15		Alkaloi	02	0.13
6	2,4,6-trihydroxy benzoic acid	c acids	8	000	1	6-Deoxyfagomine	ds	9	555	4	3-Hydroxypropanoic acid	c acids	2	536	8	Ailanindole	ds	5	540
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
00	Naringenin	7-O-glucoside	Flavan	07	0.30	01		06	2.81	00		Flavan	03	0.32	05		Flavon	09	0.13
15	(Prunin)	ols	21	281	26	2-Furanoic acid	c acids	74	628	44	Astilbin	ols	46	634	05	Chrysin-7-glucoside	es	13	856

9			5		8		4		0		6		4		6
kz0			1.		kz0		1.		kz0		1.		kz0		1.
00			06		01		06		00		04		05		08
79		Flavon	84	0.30	28		Organi	18	2.83	43		Flavan	21	0.33	38
2	Apigenin 5-O-glucoside	es	8	979	1	Citraconic acid	c acids	4	352	1	Eriodictyol 7-O-glucoside	ones	9	034	9
kz0			1.		kz0			1.		kz0			1.		kz0
00		Pheno	06		02			06		04			06		00
06		lic	21	0.31	85		Alkaloi	58	2.84	17	Quercetin	3-O-β-D-Flavon	95	0.33	52
4	1-O-Feruloyl quinic acid	acids	3	440	3	Dihydroisopelletierine	ds	6	347	3	neohesperidoside	ols	0	115	2
kz0			1.					1.		kz0			1.		
03			06		km			05		00		Pheno	07		km
76		Terpe	91	0.31	02		Flavon	76	2.85	56		lic	57	0.33	02
6	Uncargenin D	noids	4	523	35	Apigenin	es	7	484	0	Trihydroxycinnamoylquinic acid	acids	0	157	39
kz0			1.		kz0			1.		kz0			1.		kz0
02			03		00			06		01			07		02
78	Sexangularetin 3-glucoside-7-	Flavon	94	0.31	90		Flavon	96	2.89	16		Vitami	37	0.33	21
8	rhamnoside	ols	0	557	4	Tiliroside	ols	0	256	3	Riboflavin	ns	5	409	1
kz0			1.		kz0			1.		kz0			1.		kz0
05			05		01			04		01			07		01
04		Coum	73	0.32	17		Coum	58	2.93	31		Organi	55	0.34	15
3	Scopoletin?Beta-D-Glucuronide	arins	2	067	5	Esculetin	arins	3	033	2	Shikimic acid	c acids	6	859	8
kz0			1.		kz0			1.		kz0			1.		kz0
01			06		05			07		00			07		00
17		Coum	79	0.32	19	Poncirin(Isosakuranetin-7-	Flavan	02	2.93	90		Flavon	62	0.34	61
7	Scoparone	arins	6	115	8	neohesperidoside)	ones	2	444	8	Quercetin-3-O-robinobioside	ols	7	891	3
kz0			1.		kz0			1.		kz0			1.		kz0
00			04		01			06		03			01		02
79	Apigenin	7-O-Flavon	09	0.33	10		Alkaloi	82	3.00	85		Terpe	13	0.35	97
1	glucoside(Cosmosiin)	es	1	885	5	Acetylcholine	ds	8	000	9	p-Coumaroyleuscaphic acid	noids	0	369	7
kz0			1.		kz0			1.		kz0			1.		kz0
02			04		01			06		00			07		00
60		Other	80	0.34	29		Organi	95	3.00	91		Flavon	52	0.35	15
7	Lariciresinol glucopyranoside	s	2	364	3	4-Guanidinobutyric acid	c acids	8	146	1	Quercetin-7-O-rutinoside	ols	3	455	9
kz0			1.		kz0			1.		kz0			1.		kz0
00			06		05			06		03			04		00
99		Lignan	60	0.35	13		Flavon	98	3.00	84		Flavan	99	0.35	12
7	Terpineol monO-glucoside	s	4	384	2	Luteolin-caffeoyl-O-rhamnoside	es	7	983	8	Cinchonain lc	ols	5	826	1
kz0			1.					1.		kz0			1.		kz0
00			06		km			02		02			06		01
28		Organi	12	0.36	00	Orobol (5,7,3',4'-	Isoflav	25	3.11	67		Flavon	82	0.36	10
4	3-Hydroxypropanoic acid	c acids	2	151	98	tetrahydroxyisoflavone)	ones	9	535	3	Eriodictyol-O-glucoside	es	9	091	0
kz0	Chrysin 5-O-glucoside (Toringin)	Flavon	1.	0.36	kz0	2,5-Dihydroxy benzoic acid O-	Pheno	1.	3.12	kz0	Dihydrosedinine	Alkaloi	1.	0.36	kz0

00		es	06	543	00	hexside	lic	04	918	02		ds	07	305	01		c acids	08	016
12			88		53		acids	74		86			14		29			80	
1			2		3			2		2			2		2			8	
kz0			1.					1.		kz0			1.		kz0			1.	
05			03		km			00		05			05		03		Pheno	08	
05		Flavon	73	0.36	02		Isoflav	85	3.15	13	Isoscooletin (6-Hydroxy-7-	Coum	68	0.37	71	2,3-Di-O-Galloyl-D-	lic	73	0.16
5	Galangin-7-glucoside	es	3	604	31	2'-Hydroxygenistein	ones	4	574	7	Methoxycoumarin)	arins	5	559	8	Glucose	acids	1	249
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
03		Pheno	04		02			06		03			07		05	Isoscooletin (6-		08	
72		lic	17	0.37	78	Kaempferol 3-O-β-d-(6''-O-(E)-p-	Flavon	86	3.16	54	Dihydrokaempferol-7-O-	Flavon	08	0.38	13	Hydroxy-7-	Coum	72	0.16
0	Maplexin H	acids	8	225	3	coumaroyl) glucopyranoside	ols	5	172	0	glucoside	ols	0	578	7	Methoxycoumarin)	arins	8	562
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
04			07		03		Pheno	05		00		Pheno	02		03	Kaempferol 3-O-(6''-		07	
63		Terpe	32	0.37	63		lic	91	3.21	50		lic	07	0.39	81	trans-p-Coumaroyl)-β-D-	Flavon	50	0.16
2	isoceanothic acid	noids	8	273	6	Plantainoside A	acids	5	386	5	Coniferyl alcohol	acids	2	691	5	glucopyranoside	ols	6	580
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
00		Pheno	01		04			06		02			00		00			08	
06		lic	30	0.38	01	Cis-p-coumaric acid 4-O-	Other	48	3.23	97		Flavon	55	0.40	77		Flavon	61	0.16
8	Catechin gallate	acids	0	255	5	glucoside	s	4	737	7	Diosmetin-7-O-galactoside	es	7	275	9	Diosmetin	es	5	627
			1.					1.		kz0			1.		kz0			1.	
km			05		km			06		05		Pheno	05		00		Pheno	08	
00		Isoflav	32	0.38	02		Flavon	84	3.25	18		lic	68	0.41	55		lic	70	0.17
80	Biochanin A	ones	3	344	39	Chrysoeriol	es	6	105	7	Dunalianoside B	acids	1	407	7	Glucosyringic Acid	acids	2	077
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
02			00		05			05		03	Kaempferol 3-O-(6''-trans-p-		01		00	β-D-Furanofructosyl-α-	Pheno	08	
19	2'-Hydoxy,5-methoxy Genistein-	Isoflav	83	0.39	08	(Kaempferol-3-O-β-D-	Flavon	23	3.25	81	Coumaroyl)-β-D-	Flavon	94	0.42	59	D-(6-mustard	lic	67	0.17
6	O-rhamnosyl-glucoside	ones	9	110	4	galactoside-4'O-β-D-glucoside)	ols	4	372	5	glucopyranoside	ols	2	104	6	acyl)glucoside	acids	3	089
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
00		Pheno	07		02		Pheno	06		01			05		01			08	
05		lic	22	0.39	54		lic	86	3.27	67	5,7,2'-Trhiyrox-8-	Flavon	25	0.42	67	5,7,2'-Trhiyrox-8-	Flavon	75	0.17
6	Salicylic acid glucoside	acids	0	242	8	p-Coumaric acid-O-glycoside	acids	7	444	1	methoxyflavone	es	1	301	1	methoxyflavone	es	6	141
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
00			05		05			07		00			05		03			08	
91	Isorhamnetin-3-O-rutinoside	Flavon	96	0.39	37		Lignan	07	3.29	77		Flavon	23	0.43	76		Terpe	93	0.17
2	(Narcissin)	ols	0	989	5	Isolariciresinol 9'-O-Glucoside	s	2	126	9	Diosmetin	es	6	792	6	Uncargenin D	noids	8	940
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
01			03		03	dihydrodehydrodiconiferyl		06		02			07		04			07	
19		Isoflav	89	0.40	84	alcohol 4-O-β-D-	Lignan	74	3.32	41		Alkaloi	80	0.44	73		Other	10	0.18
3	Prunetin	ones	6	117	9	glucopyranosides	s	9	254	9	Ergotamine	ds	4	473	5	Ligraminol E	s	3	244
kz0			1.		kz0			1.		kz0		Pheno	1.		km			1.	
02	Quercetin-7-O-(6'-O-malonyl)-β-	Flavon	02	0.40	01		Organi	06	3.33	00		lic	07	0.45	12	Chrysoeriol 7-O-	Flavon	05	0.18
99	D-glucoside	ols	31	496	27	L-Homoserine	c acids	57	586	57	Hexahydroxydiphenoylglucose	acids	70	837	11	hexoside	es	69	499

5			9	9			8	7		4		3							
kz0			1.	kz0	2-Hydroxy-5,8,11,14,17-		1.			1.	kz0	1.							
03		Pheno	06	04	icosapentaenoyloxy]propyl-2-		07	km		02	02	Pheno	09						
71		lic	88	0.41	76	(trimethylammonio)ethyl	Alkaloi	07	3.36	02	Flavon	68	0.48	54	lic	08	0.18		
4	6-O-Galloyl-β-D-glucose	acids	8	493	2	phosphate	ds	6	971	39	Chrysoeriol	es	7	043	9	Vanillic acid glycoside	acids	0	635
kz0			1.	kz0				1.		kz0			1.		kz0			1.	
03		Pheno	07		03			06		05		Pheno	07		01			09	
49		lic	31	0.42	86	3-O-Trans-feruloyl euscaphic	Terpe	07	3.39	35		lic	96	0.49	04	N-Acetyl-D-glucosamine	Other	19	0.19
7	3-O-Galloyl-β-D-glucose	acids	6	022	1	acid	noids	5	804	5	Koaburaside	acids	5	615	1	1-phosphate	s	9	004
kz0			1.	kz0				1.		kz0			1.		kz0			1.	
00		Pheno	04		03			06		02			00		00		Pheno	09	
07	Anthranilate O-hexosyl-O-	lic	70	0.42	57		Flavon	88	3.40	80		Organi	98	2.06	05		lic	08	0.19
0	hexoside	acids	7	906	2	Biondnoid I	ols	1	340	7	Dimethylmalonic acid	c acids	6	844	6	Salicylic acid glucoside	acids	9	816
kz0			1.	kz0				1.		kz0			1.		kz0			1.	
03		Pheno	07		00			06		01			05		00			08	
10		lic	28	0.43	91	6-Hydroxykaempferol-7,6-O-	Flavon	77	3.41	29		Organi	10	2.08	19		Other	31	0.20
0	5-O-Galloylhamamelose	acids	6	245	5	Diglucoside	ols	5	739	2	4-Acetamidobutyric acid	c acids	7	901	0	Arbutin	s	3	892
			1.	kz0				1.		kz0			1.		kz0			1.	
km			04	01				04		03		Pheno	02		01			08	
05		Flavon	55	0.44	03		Other	98	3.47	72		lic	25	2.20	08		Terpe	71	0.21
48	Dihydroquercetin (Taxifolin)	ols	3	054	2	N-Acetyl-D-galactosamine	s	3	216	1	Maplexin G	acids	8	535	4	Ursolic acid	noids	1	260
kz0			1.	kz0				1.		kz0			1.		kz0			1.	
01			07	05				05		01			05		02	1,4,8-trihydroxy		08	
04	N-Acetyl-D-glucosamine 1-	Other	13	0.44	38		Other	10	3.48	31		Organi	39	2.24	48	naphthalene-1-O-β-D-	Quino	29	0.21
1	phosphate	s	5	141	9	Byzantionoside A	s	0	073	5	Anchoic Acid	c acids	2	652	6	glucopyranoside	nes	3	612
kz0			1.	kz0				1.		kz0			1.		kz0			1.	
01			05	00				07		00		Antho	00		00		Pheno	08	
28		Organi	35	0.44	42		Flavan	01	3.51	69		cyanin	69	2.28	50		lic	88	0.21
7	(S)-(-)-2-Hydroxyisocaproic acid	c acids	7	665	2	Butin	ones	7	646	8	Cyanidin-3-O-galactoside	s	0	688	4	Caffeic acid	acids	4	647
kz0			1.					1.		kz0			1.		kz0			1.	
01			07	km				06		02		Pheno	06		00			08	
29		Organi	26	0.45	08		Flavon	90	3.59	55		lic	99	2.28	28		Organi	57	0.21
7	(Rs)-Mevalonic acid	c acids	8	620	14	Morin	ols	3	070	4	p-Hydroxycinnamic acid	acids	3	972	4	3-Hydroxypropanoic acid	c acids	8	794
			1.	kz0				1.		kz0			1.		kz0			1.	
km			02	04				05		00		Pheno	07		03		Pheno	08	
14		Vitami	55	0.45	67		Other	80	3.59	49		lic	90	2.29	09		lic	64	0.22
05	Nicotinic acid-hexoside	ns	6	863	8	Annuionone D	s	0	453	6	Vanillic acid	acids	5	229	8	3-O-Digalloyl quinic acid	acids	7	125
kz0			1.	kz0				1.		kz0			1.		kz0			1.	
04			05	00				06		00		Pheno	06		00	p-	Pheno	08	
13		Vitami	36	0.46	15	Naringenin 7-O-glucoside	Flavan	90	3.60	57		lic	11	2.32	57	Coumaroylferuloyltartari	lic	90	0.23
3	L-Ascorbic acid	ns	4	904	9	(Prunin)	ols	8	882	3	p-Coumaroylferuloyltartaric acid	acids	8	036	3	c acid	acids	2	075
kz0	6-O-caffeoyl-β-glucose	Pheno	1.	0.47	kz0	5-Aminolevulinate	Alkaloi	1.	3.61	kz0	Ayapin	Coum	1.	2.34	kz0	Aucubin	Terpe	1.	0.23

02		lic	07	716	00		ds	06	282	03		arins	04	091	00		noids	08	226
55		acids	03		23			90		26			87		41			71	
8			3		1			5		2			9		2			7	
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
00		Pheno	06		02			05		01			06		02			09	
54	1-O-[(E)-Caffeoyl]-β-D-	lic	97	0.47	48		Quino	77	3.64	15		Vitami	14	2.34	22		Lignan	05	0.23
9	glucopyranose	acids	3	892	5	3-methoxy-juglone	nes	6	044	6	Pyridoxine	ns	6	336	0	Olivil-4'-O-β-D-glucoside	s	8	878
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
01			07		00			07		04			06		03			08	
59		Alkaloi	05	0.48	43		Flavan	10	3.64	13		Vitami	87	2.36	81	Kaempferol-malonyl-3-	Flavon	06	0.23
8	Stachydrine	ds	0	105	4	Pinobanksin	ols	8	092	3	L-Ascorbic acid	ns	6	217	1	O-glucoside	ols	1	941
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
05			05		01			06		00			07		02		Pheno	08	
37		Lignan	43	0.48	09	Oleanolic acid 2-O-β-D-	Terpe	24	3.66	99		Lignan	43	2.37	54	Isosalicylic acid O-	lic	29	0.25
0	(+)-Isolariciresinol	s	7	218	3	glucopyranoside	noids	5	434	2	Pinoresinol	s	1	234	6	glycoside	acids	0	156
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
00			05		03			03		03		Pheno	02		01		Pheno	08	
29		Organi	28	0.48	11		Organi	76	3.72	79		lic	21	2.38	07		lic	72	0.25
4	2-Hydroxyisocaproic acid	c acids	1	891	6	2,4,6-trihydroxy benzoic acid	c acids	2	965	6	1'-O-vanilloyl-β-D-glucoside	acids	5	230	5	Methyl gallate	acids	9	658
kz0			1.					1.		kz0			1.		kz0			1.	
00		Pheno	06		km			07		00		Pheno	08		00		Pheno	06	
55		lic	97	0.49	08		Flavan	04	3.75	48		lic	04	2.38	05	3-O-p-	lic	09	0.25
0	Coniferin	acids	7	157	49	Naringenin chalcone	ones	6	267	4	Vanillin	acids	1	648	9	Coumaroylshikimic acid	acids	9	698
kz0			1.					1.		kz0			1.		kz0			1.	
01		Pheno	05		km			07		01		Pheno	06		00			09	
07		lic	56	2.00	08		Flavan	06	3.76	07		lic	12	2.39	99		Lignan	02	0.26
5	Methyl gallate	acids	6	149	43	Naringenin	ones	2	856	5	Methyl gallate	acids	3	821	5	Syringaresinol	s	1	236
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
01			05		05			06		01			06		02			06	
03		Other	25	2.02	05		Flavon	89	3.77	28		Organi	77	2.41	78	Sexangularetin 3-	Flavon	49	0.26
2	N-Acetyl-D-galactosamine	s	7	646	4	Chrysin-7-glucoside	es	9	004	5	2-Methylsuccinic acid	c acids	0	187	8	glucoside-7-rhamnoside	ols	3	358
kz0			1.		kz0			1.		kz0			1.					1.	
00			04		03			03		01			07		km		Pheno	01	
41		Terpe	85	2.10	79		Flavan	80	3.83	27		Organi	98	2.43	11	5-O-p-Coumaroyl	lic	82	0.26
2	Aucubin	noids	2	309	3	Dihydromyricetin-O-glucoside	ols	1	247	6	Succinic acid	c acids	7	794	13	shikimic acid	acids	1	951
kz0			1.		kz0			1.					1.		kz0			1.	
00		Pheno	06		05			06		km			04		00	3-Hydroxy-4-	Pheno	08	
50		lic	92	2.10	37		Lignan	64	3.85	00	Genistein (4',5,7-	Isoflav	89	2.46	53	isopropylbenzylalcohol	lic	90	0.27
1	Methyl p-coumarate	acids	1	498	0	(+)-Isolariciresinol	s	3	273	81	Trihydroxyisoflavone)	ones	1	264	9	3-glucoside	acids	0	193
kz0			1.		kz0		Pheno	1.		kz0			1.		km			1.	
03	3-O-(2-O-Acetyl-β-D-	Terpe	06	2.11	00		lic	06	3.85	04		Terpe	08	2.47	08		Flavan	09	0.27
03	glucopyranosyl) oleanolic acid	noids	71	178	50	Caffeic acid	acids	35	662	62	pomolic acid	noids	04	750	43	Naringenin	ones	18	462

8			2		4		3		6		2		5						
kz0			1.		kz0		1.		kz0		1.		1.						
00			06		02		06		00		03	km	09						
41		Terpe	82	2.13	94		Flavon	55	3.92	92		Flavon	04	2.48	08		Flavan	11	0.28
0	Sweroside	noids	7	944	9	Hispidulin	es	8	014	0	Quercetin-O-rutinoside-hexose	ols	0	893	49	Naringenin chalcone	ones	5	073
			1.		kz0			1.		kz0			1.		kz0			1.	
km			03		01			06		02			07		03		Pheno	08	
08		Vitami	31	2.20	28		Organi	94	3.94	21		Lignan	51	2.49	51		lic	78	0.28
79	Orotic acid	ns	6	107	3	6-Aminocaproic acid	c acids	1	525	9	Epipinoresinol	s	0	688	7	Glucosyloxybenzoic acid	acids	7	273
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
01		Pheno	05		00		Pheno	06		02			06		02		Pheno	07	
81		lic	76	2.20	55		lic	79	3.96	22		Lignan	68	2.50	55	4-O-glucosyl-4-	lic	05	0.28
9	Salicylic acid	acids	1	623	4	Chlorogenic acid	acids	0	755	0	Olivil-4'-O-β-D-glucoside	s	0	731	6	hydroxybenzoic acid	acids	0	460
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
05			02		00			06		01			08		02			08	
13	Isoscopoletin (6-Hydroxy-7-	Coum	05	2.25	41		Terpe	28	4.05	08		Terpe	01	2.50	85		Alkaloi	99	0.28
7	Methoxycoumarin)	arins	7	844	0	Sweroside	noids	5	710	7	Maslinic acid	noids	6	938	3	Dihydroisopelletierine	ds	1	480
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
00		Pheno	06		00			06		00		Pheno	07		00			09	
53		lic	47	2.26	12		Flavon	74	4.11	04		lic	96	2.51	42		Flavan	10	0.28
2	Protocatechuic acid-4-glucoside	acids	4	794	1	Chrysin 5-O-glucoside (Toringin)	es	2	841	9	2-(Formylamino)benzoic acid	acids	4	801	2	Butin	ones	7	847
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
03			00		00			06		01			08		00			09	
85	(-)-secoisolariciresinol 4-O-β-D-	Lignan	08	2.27	14		Isoflav	81	4.12	27		Organi	00	2.52	43		Flavan	18	0.29
0	giucopyranoside	s	9	410	5	Formononetin	ones	3	330	5	Methylmalonic acid	c acids	4	254	4	Pinobanksin	ols	4	289
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
01			05		00		Pheno	06		01			07		00		Pheno	05	
10		Alkaloi	92	2.28	47		lic	42	4.19	08		Terpe	91	2.54	53	2,5-Dihydroxy benzoic	lic	90	0.29
5	Acetylcholine	ds	8	872	5	4-Hydroxybenzoic acid	acids	4	149	9	2-Hydroxyoleanolic acid	noids	1	107	3	acid O-hexside	acids	9	836
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
01			06		00		Pheno	04		03			08		05			08	
15		Vitami	35	2.37	04		lic	73	4.23	54		Other	12	2.56	37	Isolariciresinol 9'-O-	Lignan	55	0.30
7	4-Pyridoxic acid	ns	0	074	7	Mandelic acid	acids	5	277	9	Hederagenin	s	9	396	5	Glucoside	s	4	355
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
01			05		04			06		04			07		03	dihydrodehydrodiconifer		08	
10		Alkaloi	44	2.42	03		Alkaloi	76	4.35	62		Terpe	94	2.56	84	yl alcohol 4-O-β-D-	Lignan	83	0.30
3	6-Hydroxynicotinic acid	ds	5	076	5	3-Indoleacrylic acid	ds	2	854	7	alphitolic acid	noids	2	831	9	glucopyranosides	s	7	404
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
00			06		01			04		01		Pheno	05		03		Pheno	08	
88	Kaempferol-3-O-glucoside	Flavon	55	2.42	01	3-Amino-1-propionic sulfonic	Other	54	4.35	07		lic	59	2.57	72		lic	33	0.30
4	(Astragalin)	ols	7	124	8	acid	s	7	860	6	Ethyl gallate	acids	2	566	1	Maplexin G	acids	9	413
kz0	dihydrodehydrodiconiferyl	Lignan	1.	2.43	kz0	N-Acetyl-D-glucosamine 1-	Other	1.	4.38	kz0	p-Coumaric acid	Pheno	1.	2.58	kz0	(-)-secoisolariciresinol 4-	Lignan	1.	0.30

03	alcohol	4-O-β-D-	s	06	638	01	phosphate	s	07	410	00		lic	07	240	03	O-β-D-giucopyranoside	s	08	642
84	glucopyranosides			83		04			01		49		acids	17		85			75	
9				7		1			0		1			0		0			5	
kz0				1.		kz0			1.		kz0			1.		kz0			1.	
00				06		04			04		01			07		02	2'-Hydoxy,5-methoxy		04	
25			Vitami	76	2.45	73		Other	38	4.45	08	3,24-Dihydroxy-17,21-	Terpe	95	2.58	19	Genistein-O-rhamnosyl-	Isoflav	14	0.30
8	Nicotinate D-ribonucleoside		ns	1	854	5	Ligraminol E	s	3	023	8	semiacetal-12(13)oleanolic fruit	noids	5	621	6	glucoside	ones	8	708
kz0				1.		kz0			1.		kz0			1.		kz0			1.	
00			Pheno	07		02		Pheno	06		00			07		00		Pheno	07	
05			lic	06	2.49	06	4-α-L-Rhamnopyranosyl-ellagic	lic	71	4.48	29		Organi	75	2.61	52		lic	12	0.30
1	4-Methoxycinnamic acid		acids	0	319	5	acid	acids	7	941	0	Aminomalonic acid	c acids	1	736	0	Sinapic acid	acids	3	805
				1.		kz0			1.		kz0			1.		kz0			1.	
km			Pheno	07		00		Pheno	06		03		Pheno	07		03			08	
13			lic	11	2.53	48		lic	93	4.51	09		lic	55	2.62	15		Other	85	0.30
00	Hydroxy-methoxycinnamate		acids	6	063	7	2,5-Dihydroxybenzoic acid	acids	3	498	7	3,4-Di-O-galloyl-shikimic acid	acids	3	830	1	Ailantinol E	s	2	916
kz0				1.		kz0			1.		kz0			1.					1.	
02				06		00	Catechin-(7,8-bc)-4β-(3,4-		07		03		Pheno	02		km			03	
78	Kaempferol 3-O-β-d-(6''-O-(E)-p-		Flavon	00	2.53	97	dihydroxyphenyl)-dihydro-2-	Flavan	06	4.56	72		lic	74	2.64	06	Genistein 7-O-Glucoside	Isoflav	96	0.31
3	coumaroyl) glucopyranoside		ols	5	750	8	(3H)-pyranone	ols	7	812	0	Maplexin H	acids	4	700	02	(Genistin)	ones	3	645
kz0				1.		kz0			1.					1.		kz0			1.	
00			Pheno	05		00	Catechin-(7,8-bc)-4α-(3,4-		07		km			05		04			07	
51			lic	71	2.54	97	dihydroxyphenyl)-dihydro-2-	Flavan	05	4.62	02		Flavon	56	2.67	01	Cis-p-coumaric acid 4-O-	Other	70	0.32
2	Syringic acid		acids	6	720	9	(3H)-pyranone	ols	3	460	35	Apigenin	es	9	204	5	glucoside	s	4	180
kz0				1.					1.		kz0			1.		kz0			1.	
01				04		km			06		01			08		00			07	
11			Alkaloi	38	2.57	05		Flavan	47	4.71	09		Terpe	14	2.71	79		Flavon	82	0.32
3	Lumichrome		ds	3	143	73	Epicatechin gallate (ECG)	ols	4	816	1	Euscaphic acid	noids	3	197	2	Apigenin 5-O-glucoside	es	8	197
kz0				1.		kz0			1.		kz0			1.		kz0			1.	
05				06		01			06		00		Pheno	04		00			08	
37			Lignan	14	2.59	30		Organi	97	4.73	05	Ethyl 3,4-Dihydroxybenzoate	lic	45	2.71	91	Isorhamnetin-3-O-	Flavon	88	0.32
5	Isolariciresinol 9'-O-Glucoside		s	8	660	2	2,3-Dihydroxybenzoic Acid	c acids	4	342	2	(Ethyl protocatechuate)	acids	4	783	2	rutinoside (Narcissin)	ols	9	445
kz0				1.		kz0			1.		kz0			1.		kz0			1.	
00				05		00		Pheno	06		02			07		00		Pheno	09	
25			Vitami	07	2.59	48		lic	92	4.74	93		Terpe	03	2.73	54	3,4,5-Trimethoxyphenyl-	lic	08	0.32
9	Thiamine		ns	2	858	9	Protocatechuic acid	acids	2	595	3	Ixerin D	noids	3	798	0	β-D-Glucopyranoside	acids	8	704
kz0				1.		kz0			1.		kz0			1.		kz0			1.	
04				04		00			06		00			06		01		Pheno	08	
17	Kaempferol	3-O-β-D-	Flavon	89	2.62	29		Organi	78	4.98	29		Organi	81	2.81	63		lic	86	0.33
1	neohesperidoside		ols	3	687	4	2-Hydroxyisocaproic acid	c acids	3	653	4	2-Hydroxyisocaproic acid	c acids	2	987	7	Oresbuisin A	acids	8	067
km				1.		kz0		Pheno	1.		kz0			1.		kz0		Pheno	1.	
06	Kaempferol	3-O-galactoside	Flavon	06	2.65	00	Anthranilate	O-hexosyl-O-	lic	07	5.00	01		04	2.84	02		lic	09	0.33
83	(Trifolin)		ols	64	608	07	hexoside	acids	06	455	03	N-Acetyl-D-galactosamine	s	94	292	55	6-O-caffeoyl-β-glucose	acids	09	256

			0		0		9		2		3		8		2
kz0			1.		kz0		1.		kz0		1.		kz0		1.
02	Galloyl-	Pheno	00		00		06		01		07		03		07
06	HHDP(Hexahydroxydiphenyl)-	lic	99	2.69	06		94	5.08	26		89	2.86	86		70
3	glueopy ranose	acids	4	088	8	Catechin gallate	acids	3	402	8	2-Furanoic acid	6	430	0	300
kz0			1.		kz0		1.		kz0		1.		kz0		1.
00		Pheno	06		00		06		01		00		00		03
51		lic	94	2.71	56		99	5.31	31		38	2.91	50		23
4	3,4-Dimethoxycinnamic acid	acids	3	760	0	Trihydroxycinnamoylquinic acid	acids	2	420	3	SubericAcid	9	019	5	757
			1.		kz0		1.		kz0		1.		kz0		1.
km			06		03		07		00		05		04		07
07		Flavon	95	2.77	10		07	5.41	04		12	2.94	63	2α-hydroxypyra	89
79	Luteolin 7-O-glucoside	es	7	523	0	5-O-Galloylhamamelose	acids	3	880	7	Mandelic acid	2	731	6	764
kz0			1.		kz0		1.		kz0		1.		kz0		1.
03			06		03		07		04		07		00		08
57		Flavon	54	2.77	49		05	5.53	67		75	3.02	54	1-O-[(E)-Caffeoyl]-β-D-	77
2	Biondnoid I	ols	4	758	7	3-O-Galloyl-β-D-glucose	acids	8	448	8	Annuionone D	6	735	9	918
kz0			1.		kz0		1.		kz0		1.		kz0		1.
03		Pheno	05		00		06		05		07		00		08
71		lic	10	2.79	25		10	5.67	24		69	3.15	07	Anthranilate O-hexosyl-	80
8	2,3-Di-O-Galloyl-D-Glucose	acids	7	138	9	Thiamine	ns	8	838	7	Limonin	3	267	0	112
kz0			1.		kz0		1.		kz0		1.		kz0		1.
03			06		04		06		05		07		05		07
69	Quercetin-3-O-α-L-	Flavon	30	2.79	66		74	5.70	38		79	3.19	05		68
0	rhamnopyranoside	ols	5	813	7	Myricetin-O-rhamnoside	ols	1	000	5	Machilusolide D	0	165	5	186
kz0			1.		kz0		1.		kz0		1.		kz0		1.
05			06		03		07		01		08		00		04
07	Kaempferol-7-O-β-D-	Flavon	86	2.83	71		08	5.77	15		08	3.22	79	Apigenin 7-O-	32
8	glucopyranoside	ols	6	539	4	6-O-Galloyl-β-D-glucose	acids	4	384	7	4-Pyridoxic acid	6	343	1	247
kz0			1.				1.		kz0		1.		kz0		1.
02		Pheno	05		km		01		04		07		03		08
55		lic	91	2.87	05	Delphinidin 3-O-glucoside	cyanin	80	5.79	63		09	3.44	09	3,4-Di-O-galloyl-shikimic
2	Sinapic acid-glycoside	acids	4	392	32	(Mirtillin)	s	1	622	6	2α-hydroxypyra	6	325	7	370
kz0			1.		kz0		1.		kz0		1.		kz0		1.
03		Pheno	05		04		06		km		07		00		06
09		lic	23	2.91	13		76	5.84	08		97	3.51	30		58
7	3,4-Di-O-galloyl-shikimic acid	acids	9	301	3	L-Ascorbic acid	ns	0	708	14	Morin	9	628	2	531
kz0			1.		kz0		1.		kz0		1.		kz0		1.
02			05		03		06		01		02		02		08
22		Other	32	2.92	14		76	5.88	28		87	3.62	55		71
3	Eucommia	s	6	261	7	Clemaphenol A	s	1	031	3	6-Aminocaproic acid	3	077	2	595
kz0	Annuionone D	Other	1.	2.94	kz0	Quercetin-7-O-Glucoside	Flavon	1.	5.98	kz0	(S)-(-)-2-Hydroxyisocaproic acid	1.	3.70	kz0	0.35

04		s	06	676	00		ols	07	684	01		c acids	06	243	03	acid	c acids	05	290		
67			24		89			05		28			39		11			91			
8			2		0			5		7			9		6			4			
kz0			1.		kz0			1.		kz0			1.		kz0			1.			
02			03		01			05		01		Pheno	07		00			08			
60	Kaempferol-3-O-(6''-acetyl)-	Flavon	79	2.95	58		Flavon	82	6.00	64	5'-Glucopyranosyloxyjasmanic	lic	30	3.75	99		Lignan	73	0.35		
4	glucoside	ols	4	830	6	Isotamarixin	ols	7	153	2	acid	acids	4	554	2	Pinoresinol	s	0	542		
kz0			1.					1.		kz0			1.		kz0			1.			
00			06		km			07		00		Pheno	08		00			07			
86		Flavon	30	2.96	09	Quercetin	4'-O-glucoside	Flavon	00	6.09	48		lic	07	3.82	27		Alkaloi	66	0.35	
6	Quercetin	ols	8	931	34	(Spiraeoside)	ols	7	726	7	2,5-Dihydroxybenzoic acid	acids	8	936	8	Indole 3-acetic acid (IAA)	ds	2	623		
kz0			1.		kz0			1.		kz0			1.		kz0			1.			
01			07		03			03		03			04		01			08			
09		Alkaloi	16	2.97	15			94	6.13	72		Terpe	86	3.96	02	4-Methyl-5-	Other	83	0.35		
6	Choline	ds	5	053	8	Ailanindole	ds	3	493	8	Geniposide	noids	6	040	0	thiazoleethanol	s	8	675		
kz0			1.		kz0			1.		kz0			1.		kz0			1.			
02			04		00	3-Hydroxy-4-	Pheno	06		00			01		02		Pheno	08			
99		Flavon	30	2.99	53	isopropylbenzylalcohol	3-	lic	75	6.54	23		Alkaloi	43	4.03	54	p-Coumaric	acid-O-	lic	66	0.35
0	Luteolin-7-O-rutinoside	es	0	486	9	glucoside		acids	9	618	1	5-Aminolevulinate	ds	4	545	8	glycoside	acids	1	735	
kz0			1.					1.		kz0			1.		kz0			1.			
00			06		km			07		01			07		00		Pheno	09			
90	Kaempferol-3-O-	Flavon	65	3.00	12			10	6.67	09		Alkaloi	53	4.09	55		lic	14	0.35		
6	robinobioside(Biorobin)	ols	7	404	69	Di-O-methylquercetin	ols	0	062	7	Betaine	ds	4	177	0	Coniferin	acids	7	896		
kz0			1.		kz0			1.		kz0			1.		kz0			1.			
00			06		00			06		01			07		00		Pheno	08			
90	Kaempferol-3-O-	Flavon	96	3.02	99			89	6.67	30		Organi	96	4.09	55		lic	70	0.36		
5	rutinoside(Nicotiflorin)	ols	1	306	2	Pinoresinol	s	9	471	2	2,3-Dihydroxybenzoic Acid	c acids	3	883	4	Chlorogenic acid	acids	1	245		
kz0			1.		kz0			1.		kz0			1.		kz0			1.			
00			06		02			06		01			07		02			08			
81		Flavon	72	3.02	21			82	6.77	08		Terpe	23	4.23	21		Lignan	44	0.36		
2	Tricin O-saccharic acid	es	5	732	9	Epipinoresinol	s	8	903	4	Ursolic acid	noids	2	613	9	Epipinoresinol	s	5	832		
kz0			1.		kz0			1.		kz0			1.		kz0			1.			
01			05		00			06		00			06		01			08			
18	Esculin(6,7-DihydroxyCoumarin-	Coum	34	3.04	55	Neochlorogenic	acid(5-O-	lic	29	6.84	25		Vitami	56	4.26	09		Alkaloi	49	0.37	
8	6-glucoside)	arins	9	864	3	Caffeoylquinic acid)		acids	9	868	9	Thiamine	ns	2	344	7	Betaine	ds	3	370	
kz0			1.		kz0			1.		kz0			1.		kz0			1.			
00			07		01			06		00			07		01		Pheno	06			
79	Luteolin-7-O-	Flavon	26	3.06	28			51	7.06	48		lic	96	4.27	07		lic	75	0.38		
5	glucoside(Cynaroside)	es	1	588	7	(S)-(-)-2-Hydroxyisocaproic acid	c acids	6	891	9	Protocatechuic acid	acids	1	432	9	Galloyl Methyl gallate	acids	8	080		
kz0		Antho	1.		kz0			1.		kz0		Pheno	1.		kz0			1.			
00		cyanin	02	3.07	01			07	7.07	00		lic	07	4.70	00	DL-Glyceraldehyde	3-	Organi	07	0.38	
69	Cyanidin-3-O-galactoside	s	95	524	19	Indole-3-carboxaldehyde	ds	08	544	46	4-Hydroxybenzaldehyde	acids	97	660	30	phosphate	c acids	48	436		

8		3		9		0		6		6		0		9	
kz0		1.		kz0		1.		kz0		1.		kz0		1.	
05		07		03		06		01		07		00	Pheno	07	
19	Poncirin(Isosakuranetin-7-neohesperidoside)	Flavones	30 3.08 4 352	84	Cinchonain Ic	Flavones	79 7.09 3 376	29	(Rs)-Mevalonic acid	Organic acids	51 4.77 1 381	53	5-Galloylshikimic acid	Phenolic acids	90 0.38 2 560
kz0		1.		kz0		1.		kz0		1.		kz0		1.	
00		07		00		07		00		07		03		06	
90		Flavones	25 3.09	20		Others	14 7.12	86		Flavones	75 4.80	86	3-O-Trans-feruloyl euscaphic acid	Terpenoids	75 0.39 2 931
4	Tiliroside	ols	9 789	1	D-galacitol	s	2 746	4	Kaempferol	ols	5 867	1			
kz0		1.		kz0		1.		kz0		1.		kz0		1.	
00		07		03		Phenolic acids	06 7.25	01			07	05	(Kaempferol-3-O-β-D-galactoside-4'O-β-D-glucoside)	Flavones	02 94 0.40 6 163
20		Others	35 3.09	72	Maplexin G		21 7.25	18	Skimmin	Coumarins	80 4.81 4 691	08			
1	D-galacitol	s	7 916	1			1 134	4			1.	kz0		1.	
kz0		1.		kz0		1.		kz0		1.		kz0		1.	
05		07		00		Phenolic acids	05 7.27	03			07	04			
13		Flavones	30 3.14	58	5-O-p-Coumaroyl quinic acid O-hexoside	lic	35 7.27	86		Terpenoids	75 5.06 2 530	13	L-Ascorbic acid	Vitamins	21 0.40 2 399
2	Luteolin-caffeoyl-O-rhamnoside	es	0 774	4		acids	1 652	0	Caffeoyl hawthorn acid		1.	kz0		1.	
kz0		1.		kz0		1.		kz0		1.		kz0		1.	
02		03		01			05	02			06	05		Phenolic acids	09 11 0.41 8 497
80		Organic acids	46 3.19	10		Alkaloids	58 7.59	22		Others	86 5.15 2 232	35	Koaburaside		
7	Dimethylmalonic acid	c acids	6 062	3	6-Hydroxynicotinic acid	ds	3 341	3	Eucommia	s	2 232	5			
kz0		1.		kz0		1.		kz0		1.		kz0		1.	
00		Anthocyanins	01 3.19	01			06 7.59	00			07	01			
70	Cyanidin-3-O-glucoside (Kuromanin)	s	99 969	70	Isololiolide	Others	77 886	30	2-Isopropylmalate	Organic acids	94 5.17 2 149	01	3-Amino-1-propionic sulfonic acid	Others	70 0.42 9 076
kz0		1.		kz0		1.					1.	kz0		1.	
01		00		03		Phenolic acids	06 7.64	km			08	00			
31		Organic acids	46 3.21	09		lic	97 7.64	12		Flavones	12 5.17 2 773	91	6-Hydroxykaempferol-7,6-O-Diglucoside	Flavones	03 0.42 5 239
3	SubericAcid	c acids	0 686	7	3,4-Di-O-galloyl-shikimic acid	acids	4 717	69	Di-O-methylquercetin	ols	2 773	5			
kz0		1.		kz0		1.		kz0		1.		kz0		1.	
05		06		04			07	01			07	02	2'-Hydoxy,5-methoxy		00
07	Kaempferol-4'-O-β-D-glucopyranoside	Flavones	33 3.23 9 418	75	N-Benzylmethylene isomethylamine	Alkaloids	00 8.03 6 292	29	L-(+)-Tartaric acid	Organic acids	89 5.25 7 556	19	Genistein-4',7-O-diglucoside	Isoflavones	75 0.42 1 683
kz0		1.		kz0		1.		kz0		1.		km		1.	
01		07		00			05	04			05	km		08	
30		Organic acids	01 3.45	41		Chalcones	94 8.05 2 133	75	N-Benzylmethylene isomethylamine	Alkaloids	15 5.45 0 872	09	Quercetin 7-O-β-D-Glucuronide	Flavones	88 0.43 4 055
8	D-Xylonic acid	c acids	7 455	9	Phlorizin		2 133	6			1.	kz0		1.	
kz0		1.		kz0		1.		kz0		1.		kz0		1.	
05		07		05		Phenolic acids	07 8.05	04			07	01			
38		Others	20 3.48	18		lic	06 8.05	23		Terpenoids	78 5.49 1 624	31	D-Galacturonic acid(Gal A)	Organic acids	45 0.43 9 750
5	Machilusolide D	s	8 257	6	Dunalianoside C	acids	6 593	3	Terminolic acid		1.	9			
km	Morin	Flavones	1. 3.59	km	3-(4-Hydroxyphenyl)propionic	Phenolic acids	1. 8.28	kz0	4-Hydroxybenzoic acid	Pheno	1. 5.53	kz0	2-Picolylamine	Alkaloids	1. 0.43

08		ols	07	486	03	acid	lic	06	974	00		lic	07	989	00		ds	05	785
14			34		29		acids	96		47		acids	45		41			90	
			8					2		5			7		4			0	
kz0			1.		kz0			1.					1.		kz0			1.	
00			00		00		Pheno	06		km			07		00	1'-O-β-D-(3,4-	Pheno	07	
30		Organi	28	3.60	49	3-(4-Hydroxyphenyl)-propionic	lic	49	8.32	08		Vitami	84	5.71	07	Dihydroxyphenethyl)-O-	lic	04	0.45
2	2-Isopropylmalate	c acids	9	187	5	acid	acids	0	085	79	Orotic acid	ns	2	711	8	caffeoyl-glucoside	acids	7	399
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
01			06		04			07		03			08		05			09	
28		Organi	25	3.61	73	4,7,9,9'-Tetrahydroxy-3,3'-	Other	03	8.37	86		Terpe	10	5.72	13		Terpe	16	0.45
5	2-Methylsuccinic acid	c acids	4	111	8	dimethoxy-8-O-4'-neolignan	s	8	738	3	Sanguisorbigenin	noids	9	805	6	Camaldulenic acid	noids	7	862
kz0			1.		kz0			1.		kz0			1.					1.	
01		Pheno	04		04			07		01			07		km			00	
07		lic	47	3.66	63		Terpe	10	8.49	28		Organi	68	6.11	02		Isoflav	05	0.46
6	Ethyl gallate	acids	8	573	2	isoceanothic acid	noids	0	722	9	Malic acid	c acids	4	345	31	2'-Hydroxygenistein	ones	0	076
kz0			1.		kz0			1.		kz0	2-Hydroxy-5,8,11,14,17-		1.					1.	
01		Pheno	06		01		Pheno	06		04	icosapentaenoyloxy]propyl-2-		08		km			08	
63		lic	27	3.71	88		lic	86	8.50	76	(trimethylammonio)ethyl	Alkaloi	17	6.16	00	Quercetin	3-O- Flavon	49	0.46
7	Oresbiusin A	acids	8	291	0	feruloylsinapoyltartaric acid	acids	5	133	2	phosphate	ds	4	751	71	galactoside (Hyperin)	ols	2	917
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
00			07		00			06		00			08		00		Pheno	05	
91	6-Hydroxykaempferol-7,6-O-	Flavon	24	3.75	91	6-Hydroxykaempferol-3,6-O-	Flavon	63	8.69	20		Other	18	6.32	53		lic	96	0.46
5	Diglucoside	ols	7	566	4	Diglucoside	ols	9	565	1	D-galacitol	s	6	213	7	3-Galloylshikimic acid	acids	3	976
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
01			06		01			06		00		Pheno	08		02			02	
31		Organi	34	3.77	74		Other	57	8.70	54		lic	08	6.56	60	Lariciresinol	Other	26	0.48
5	Anchoic Acid	c acids	2	658	2	Methyl Brevifolincarboxylate	s	0	990	8	Trans-3-O-p-coumaric quinic acid	acids	0	784	7	glucopyranoside	s	1	104
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
03			06		02			04		00			07		02			08	
26		Coum	07	3.82	66		Terpe	20	8.89	99		Lignan	97	6.72	21		Flavon	68	0.48
2	Ayapin	arins	8	615	5	Betulinic acid	noids	3	112	7	Terpineol monO-glucoside	s	1	781	4	isohyperoside	ols	1	127
kz0			1.		kz0			1.		kz0			1.					1.	
02		Pheno	04		02		Pheno	05		01			08		km			08	
55		lic	49	3.86	54		lic	26	9.12	19		Alkaloi	08	6.90	02	Quercetin 3-O-glucoside	Flavon	54	0.48
4	p-Hydroxycinnamic acid	acids	9	165	9	Vanillic acid glycoside	acids	0	409	9	Indole-3-carboxaldehyde	ds	8	665	28	(Isotrifoliin)	ols	2	673
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
00			05		00			07		03		Pheno	06		04			06	
91	6-Hydroxykaempferol-3,6-O-	Flavon	53	3.94	43		Flavan	11	9.27	71		lic	59	6.94	69	Taxifolin-3'-O-β-D-	Flavon	32	0.48
4	Diglucoside	ols	2	798	1	Eriodictyol 7-O-glucoside	ones	8	738	8	2,3-Di-O-Galloyl-D-Glucose	acids	9	275	7	glucoside	es	0	860
kz0			1.		kz0		Pheno	1.		kz0			1.		kz0			1.	
03		Other	06	3.95	01		lic	06	9.34	03	Quercetin-O-pentosyl-O-	Flavon	04	6.99	00	Hesperetin	5-O- Flavan	08	0.48
15	Ailantinol E	s	54	314	07	Methyl gallate	acids	83	676	83	rhamnoside-O-glucoside	ols	76	027	44	glucoside	ols	98	869

1			9		5			9		3		1		1		9				
kz0			1.		kz0			1.		kz0		1.		kz0		1.				
00		Pheno	07		03			05		01		07		03		08				
49		lic	00	4.02	76		Terpe	74	9.65	28		Organi	90	7.25	57		Flavon	06	0.49	
1	p-Coumaric acid	acids	0	594	3	Betulin		noids	1	690	1	Citraconic acid	c acids	1	770	2	Biondnoid I	ols	5	158
kz0			1.		kz0			1.		kz0		1.		kz0		1.				
05			05		03			07		01		06		03		06				
04	Dihydrokaempferol-3-O-β-D-	Flavan	58	4.04	03	3-O-(2-O-Acetyl-β-D-		Terpe	07	9.84	10		Alkaloi	58	7.50	85		Other	13	0.49
6	glucoside	ols	9	815	8	glucopyranosyl) oleanolic acid		noids	3	000	3	6-Hydroxynicotinic acid	ds	0	983	4	Roseoside	s	1	164
kz0			1.		kz0			1.		kz0		1.		kz0		1.				
00			07		03			07		00		Pheno	07		00		09			
29		Organi	14	4.07	86		Terpe	13	9.91	49	3-(4-Hydroxyphenyl)-propionic	lic	70	7.77	88		Flavon	04	0.49	
0	Aminomalonic acid	c acids	5	392	3	Sanguisorbigenin		noids	6	435	5	acid	acids	0	154	9	Spiraeoside	ols	9	960
kz0			1.		kz0			1.		kz0		1.		kz0		1.				
02			05		00		Pheno	06	10.0	03		08		04		04				
16	Isoluteolin (Orobol)(5,7,3',4'-	Isoflav	72	4.13	57		lic	96	556	03	3-O-(2-O-Acetyl-β-D-	Terpe	09	8.01	17	Kaempferol 3-O-β-D-	Flavon	32	2.00	
4	tetrahydroxyisoflavone)	ones	5	277	3	p-Coumaroylferuloyltartaric acid		acids	2	2	8	glucopyranosyl) oleanolic acid	noids	4	000	1	neohesperidoside	ols	8	888
kz0			1.		kz0			1.		kz0		1.		kz0		1.				
01			07		01			06	10.0	00		07		00		04				
27		Organi	33	4.17	28		Organi	94	972	41		Terpe	85	8.06	88	Myricetin-3-O-	Flavon	49	2.02	
5	Methylmalonic acid	c acids	2	352	9	Malic acid		c acids	8	4	0	Sweroside	noids	1	912	6	arabinoside	ols	3	655
kz0			1.		kz0			1.		kz0		1.		kz0		1.				
01			07		04			07	10.1	km		Pheno	07		03		08			
27		Organi	31	4.19	63		Terpe	07	978	03	3-(4-Hydroxyphenyl)propionic	lic	98	8.42	76		Terpe	92	2.05	
6	Succinic acid	c acids	9	207	6	2α-hydroxypyraacrenic acid		noids	2	5	29	acid	acids	1	388	7	Obtusilin	noids	4	052
kz0			1.		kz0			1.		kz0		1.		kz0		1.				
00		Pheno	07		01			07	10.2	00		Pheno	07		01		08			
04		lic	04	4.23	10		Alkaloi	10	470	51		lic	97	8.59	31		Organi	81	2.09	
9	2-(Formylamino)benzoic acid	acids	4	854	1	Trigonelline		ds	4	6	5	Sinapinaldehyde	acids	3	141	8	Quinic Acid	c acids	7	797
kz0			1.		kz0			1.		kz0		1.		kz0		1.				
00		Pheno	07		00			06	10.3	01		07		07		04		09		
51		lic	22	4.32	41		Chalco	55	593	74		Other	56	9.49	63		Terpe	18	2.10	
1	Ferulic acid	acids	3	898	7	Phloretin		nes	4	9	2	Methyl Brevifolincarboxylate	s	9	791	2	isoceanothic acid	noids	3	699
kz0			1.		kz0			1.		kz0		1.		kz0		1.				
01			07		02			06	10.5	01		08		08		00		00		
29		Organi	34	4.39	22		Lignan	94	003	10		Alkaloi	15	352	92	Quercetin-O-rutinoside-	Flavon	84	2.10	
3	4-Guanidinobutyric acid	c acids	0	097	0	Olivil-4'-O-β-D-glucoside		s	2	8	1	Trigonelline	ds	5	9	0	hexose	ols	6	884
kz0			1.		kz0			1.		kz0		1.		kz0		1.				
00			06		01			06	10.9	04		04		04		01	5'-	Pheno	07	
86		Flavon	80	4.41	09		Alkaloi	91	493	63		Terpe	84	577	64	Glucopyranosyloxyjasma	lic	97	2.16	
4	Kaempferol	ols	8	896	7	Betaine		ds	4	7	0	2α-hydroxyursolic acid	noids	1	3	2	nic acid	acids	6	423
kz0	Isoferulic Acid	Pheno	1.	4.53	kz0	Indole-3-carboxylic acid		Alkaloi	1.	12.3	kz0	Isotamarixin	Flavon	1.	11.4	kz0	Kaempferol-3-O-	Flavon	1.	2.26

00		lic	07	964	01		ds	06	581	01		ols	07	220	00	robinobioside(Biorobin)	ols	07	090	
05		acids	29		20			96	1	58			62	2	90			85		
3			1		3			4		6			1		6			4		
kz0			1.		kz0			1.		kz0			1.		kz0			1.		
01			06		00			07	12.5	02			06	11.4	00			08		
18		Coum	73	4.60	42		Flavan	13	076	66		Terpe	06	967	90	Kaempferol-3-O-	Flavon	70	2.39	
4	Skimmin	arins	5	051	4	Eriodictyol	ones	8	9	5	Betulinic acid	noids	1	0	5	rutinoside(Nicotiflorin)	ols	5	634	
kz0			1.		kz0			1.		kz0			1.		kz0			1.		
00		Pheno	07		00			07	12.7	00		Pheno	08	11.5	00		Pheno	08		
55	Methyl	6-O-galloyl-β-D-	lic	18	4.66	99	Lignan	03	218	05		lic	14	371	05		lic	99	2.40	
1	glucopyranoside	acids	6	051	7	Terpineol monO-glucoside	s	5	9	5	3,4,5-Trimethoxycinnamic acid	acids	2	0	3	Isoferulic Acid	acids	5	177	
kz0			1.		kz0			1.					1.		kz0			1.		
01			07		00		Pheno	06	12.8	km			08	11.5	00		Pheno	08		
70		Other	30	4.86	54		lic	92	134	12		Flavan	04	765	51		lic	79	2.40	
6	Isololiolide	s	5	305	8	Trans-3-O-p-coumaric quinic acid	acids	2	1	93	Hesperetin O-malonylhexoside	ones	7	8	1	Ferulic acid	acids	7	988	
kz0			1.		kz0			1.		kz0			1.		kz0			1.		
03			04		02			07	12.9	02		Pheno	08	11.6	04		Pheno	03		
72		Terpe	67	4.91	67		Flavon	11	835	06	4-α-L-Rhamnopyranosyl-ellagic	lic	05	517	59		lic	48	2.41	
8	Geniposide	noids	4	620	3	Eriodictyol-O-glucoside	es	9	4	5	acid	acids	3	6	5	Geraniin	acids	3	707	
kz0			1.		kz0			1.		kz0			1.		kz0			1.		
01			06		03			07	12.9	01			07	12.1	00		Pheno	03		
08		Terpe	63	5.10	54	Dihydrokaempferol-7-O-	Flavon	06	956	09	Oleanolic acid	2-O-β-D-	Terpe	98	428	06		lic	41	2.47
4	Ursolic acid	noids	4	456	0	glucoside	ols	4	9	3	glucopyranoside	noids	9	6	4	1-O-Feruloyl quinic acid	acids	2	756	
kz0			1.		kz0			1.		kz0			1.		kz0			1.		
00			02		01			07	13.0	01			08	12.3	03		Pheno	04		
19	E-3,4,5'-Trihydroxy-3'-	Other	91	5.13	29		Organi	02	434	31		Organi	17	655	50		lic	49	2.50	
7	glucopyranosylstilbene	s	4	043	2	4-Acetamidobutyric acid	c acids	6	8	9	D-Galacturonic acid(Gal A)	c acids	6	9	4	Geraniinic acid C	acids	5	161	
kz0			1.		kz0			1.		kz0			1.		kz0			1.		
05			06		05		Pheno	07	13.7	02			06	13.7	01			09		
37	5'-methoxyisolariciresinol-9'-O-	Lignan	24	5.21	18		lic	03	716	22		Lignan	61	489	70		Other	08	2.53	
8	β-D-glucopyranoside	s	0	127	7	Dunalianoside B	acids	6	3	1	Eucommin A	s	2	6	6	Isololiolide	s	5	190	
			1.		kz0			1.		kz0			1.		kz0			1.		
km			06		00			06	14.9	01			07	13.7	01			06		
02		Flavon	45	5.59	30		Organi	79	764	01		Other	16	719	11		Alkaloi	72	2.54	
35	Apigenin	es	2	475	2	2-Isopropylmalate	c acids	9	6	4	1-Methylhistamine	s	7	1	3	Lumichrome	ds	1	839	
kz0			1.		kz0			1.		kz0			1.		kz0			1.		
01			06		03			06	15.2	03			07	14.3	01			08		
74		Other	44	6.40	86		Terpe	84	112	76		Terpe	15	995	28		Organi	72	2.56	
2	Methyl Brevifolincarboxylate	s	8	339	0	Caffeoyl hawthorn acid	noids	9	7	3	Betulin	noids	4	7	1	Citraconic acid	c acids	1	137	
kz0		Pheno	1.		kz0			1.	16.5	kz0			1.	15.3	kz0		Pheno	1.		
00		lic	07	6.48	00		Flavan	06	162	01		Alkaloi	08	783	02	4-α-L-Rhamnopyranosyl-	lic	08	2.59	
47	4-Hydroxybenzoic acid	acids	05	910	44	Astilbin	ols	90	6	20	Indole-3-carboxylic acid	ds	04	8	06	ellagic acid	acids	61	539	

5			0		0		7		3		2		5		1	
			1.		kz0		1.		kz0		1.		kz0		1.	
km			06		01		07 17.3		05		08 16.6		02		08	
00	Genistein	(4',5,7-	Isoflav	19 6.49	19		Isoflav	07 071	13		Terpe	10 332	99		Flavon	25 2.72
81	Trihydroxyisoflavone)		ones	1 981	3	Prunetin	ones	1 7	6	Camaldulenic acid	noids	4 1	0	Luteolin-7-O-rutinoside	es	5 000
kz0			1.		kz0		1.		kz0		1.		kz0		1.	
01			06		00		Pheno	06 17.3	01		08 17.8		00		08	
97	Kaempferol-3-O-(cinnamoyl)-		Flavon	99 6.90	61	1,2,3,6-Tetra-O-Galloyl-D-	lic	51 921	02		Other	02 781	86		Flavon	24 2.79
3	sophoroside-7-O-glucose		ols	3 681	3	Glucose	acids	6 6	5	D-Glucurono-6,3-lactone	s	7 3	4	Kaempferol	ols	4 011
kz0			1.		kz0		1.		kz0		1.		kz0		1.	
01			07		03		06 17.5		04		08 17.9		03		06	
02			Other	08 7.05	76		Terpe	57 850	63		Terpe	16 035	26		Coum	67 2.81
5	D-Glucurono-6,3-lactone		s	2 453	7	Obtusilin	noids	2 7	2	isoceanothic acid	noids	5 3	2	Ayapin	arins	0 421
kz0			1.				1.		kz0		1.		kz0		1.	
03			Pheno	06	km		07 17.6		01		08 19.2		01		07	
36			lic	14 7.43	12		Flavan	06 351	70		Other	04 395	31		Organi	58 2.82
2	Tubuloside C		acids	9 855	93	Hesperetin O-malonylhexoside	ones	6 4	6	Isololiolide	s	1 4	5	Anchoic Acid	c acids	2 670
			1.				1.		kz0		1.		kz0		1.	
km			07		km		07 18.7		03		07 19.8		01		00	
12			Flavon	37 7.54	00		Isoflav	11 386	75		Flavon	93 535	31		Organi	56 2.99
69	Di-O-methylquercetin		ols	9 750	80	Biochanin A	ones	8 0	5	Quercetin-3-sambubioside	ols	8 7	3	SubericAcid	c acids	7 278
kz0			1.		kz0		1.		kz0		1.		kz0		1.	
05	Hesperetin	7-O-	07		02		05 19.5		04	Quercetin	3-O-β-D-	08 21.8	00	Kaempferol-3-O-		04
20	neohesperidoside(Neohesperidi		Flavan	25 7.93	22		Lignan	91 101	17	xylopyranosyl(1→2)-β-D-	Flavon	01 765	90	glucoside-7-O-	Flavon	84 3.21
0	n)		ones	8 928	1	Eucommin A	s	0 6	2	galactopyranoside	ols	9 1	7	rhamnoside	ols	4 356
kz0			1.		kz0		1.		kz0		1.		kz0		1.	
00			07		01		06 19.9		00		Pheno	08 24.9	km		08	
14			Isoflav	38 8.51	08		Terpe	98 256	50		lic	13 394	08		Vitami	42 3.26
5	Formononetin		ones	9 113	4	Ursolic acid	noids	8 3	0	Riboprine	acids	5 7	79	Orotic acid	ns	5 001
kz0			1.		kz0		1.		kz0		1.		kz0		1.	
03			06		03		Pheno	06 22.1	00		07 27.9		01		09	
76			Terpe	96 8.92	72		lic	73 871	84		Flavon	87 250	09	Oleanolic acid 2-O-β-D-	Terpe	09 3.31
3	Betulin		noids	1 952	0	Maplexin H	acids	9 8	1	Luteolin-O-sinapoylhexoside	es	7 0	3	glucopyranoside	noids	6 379
kz0			1.		kz0		1.		kz0		1.		kz0		1.	
01			07		01		07 23.4		00		Pheno	07 29.4	00	N-		07
31			Organi	30 9.51	02		Other	03 058	54		lic	90 881	27	sinapoylhydroxycoumari	Coum	80 3.94
9	D-Galacturonic acid(Gal A)		c acids	5 537	5	D-Glucurono-6,3-lactone	s	4 8	4	3-O-p-Coumaroyl quinic acid	acids	9 0	4	n	arins	0 312
kz0			1.		kz0		1.		kz0		1.		kz0		1.	
00			Pheno	07 10.5	03		06 27.0		03		07 36.0		01	Esculin(6,7-		08
49			lic	31 905	82	Kampferol 3-O-(6''-galloyl)-β-D-	Flavon	41 849	76		Terpe	85 586	18	DihydroxyCoumarin-6-	Coum	09 4.11
6	Vanillic acid		acids	5 5	1	galactopyranoside	ols	1 3	7	Obtusilin	noids	5 0	8	glucoside)	arins	4 639
kz0	6-Hydroxy-7-methoxycoumarin		Coum	1. 12.0	kz0	D-Galacturonic acid(Gal A)	Organi	1. 28.2	kz0	Myricetin-O-rhamnoside	Flavon	1. 38.4	kz0	4-Hydroxybenzaldehyde	Pheno	1. 4.25

03		arins	07	510	01		c acids	07	642	04		ols	08	117	00		lic	08	650
16			32	5	31			10	1	66			12	6	46		acids	96	
6			9		9			6		7			3		6			5	
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
01			07	12.7	05			07	36.2	00			08	40.1	01			09	
09		Terpe	37	462	13		Terpe	08	682	89		Flavon	16	842	09		Terpe	17	4.45
0	Methoxyursolic acid	noids	6	3	6	Camaldulenic acid	noids	8	5	0	Quercetin-7-O-Glucoside	ols	6	1	0	Methoxyursolic acid	noids	3	477
kz0			1.		kz0			1.					1.		kz0			1.	
03			07	12.8	03		Pheno	06	38.9	km			08	42.5	00		Pheno	08	
83	Quercetin-O-pentosyl-O-	Flavon	08	817	79		lic	87	830	09	Quercetin 4'-O-glucoside	Flavon	13	436	47		lic	80	4.89
3	rhamnoside-O-glucoside	ols	9	6	6	1'-O-vanilloyl-β-D-glucoside	acids	6	5	34	(Spiraeoside)	ols	8	4	9	Cinnamic acid	acids	4	950
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
01			05	13.2	01		Pheno	07	39.1	05		Pheno	08	48.2	01			09	
58		Flavon	21	118	07		lic	06	035	03		lic	13	613	18		Coum	02	5.26
6	Isotamarixin	ols	8	9	4	Gallic acid	acids	5	9	7	Caffeoylferuloylshikimic?acid	acids	1	3	4	Skimmin	arins	5	008
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
03	Quercetin-3-O-(2-O-α-L-		06	13.2	00		Pheno	06	42.0	00			08	64.1	02			08	
69	rhamnopyranosyl)-β-D-	Flavon	97	712	54		lic	94	833	11		Flavon	15	250	22		Other	55	5.67
3	galactopyranoside	ols	9	7	4	3-O-p-Coumaroyl quinic acid	acids	8	3	8	Sakuranetin	es	7	0	3	Eucommia	s	7	883
kz0			1.		kz0			1.		kz0			1.		kz0	Kaempferol-3-O-		1.	
00		Pheno	06	15.1	03		Pheno	06	42.7	02			08	66.2	01	(cinnamoyl)-		08	
48		lic	71	375	71		lic	76	283	33		Flavon	10	500	97	sophoroside-7-O-	Flavon	46	5.71
4	Vanillin	acids	3	4	8	2,3-Di-O-Galloyl-D-Glucose	acids	1	8	7	Luteolin-7-O-β-D-gentiobioside	es	3	0	3	glucose	ols	5	350
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
01			06	18.3	01			07	44.0	00			08	88.7	00		Pheno	09	
19		Alkaloi	81	776	29		Organi	09	499	14		Isoflav	15	910	51		lic	07	5.71
9	Indole-3-carboxaldehyde	ds	7	4	8	L-(+)-Tartaric acid	c acids	6	4	5	Formononetin	ones	8	3	5	Sinapinaldehyde	acids	3	429
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
01			07	18.4	02			07	44.4	03			08	89.5	00		Pheno	08	
20		Alkaloi	30	740	97		Flavon	06	250	74		Terpe	11	250	05	3,4,5-	lic	93	6.13
3	Indole-3-carboxylic acid	ds	9	3	8	Pratensein 7-O-glucopyranoside	es	4	0	8	7'-O-Sinapoyljasminoside L	noids	8	0	5	Trimethoxycinnamic acid	acids	8	434
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
02		Pheno	07	19.5	02			06	44.5	00		Antho	07	92.2	00			09	
06	4-α-L-Rhamnopyranosyl-ellagic	lic	31	731	66		Terpe	61	000	73		cyanin	88	000	89		Flavon	15	6.71
5	acid	acids	9	2	8	Ovalifoliolides B	noids	1	0	3	Delphinidin-3,5-O-diglucoside	s	5	0	0	Quercetin-7-O-Glucoside	ols	7	209
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
00		Pheno	06	22.7	01			07	44.8	01			08	98.4	04			09	
46		lic	86	743	09		Terpe	12	198	08	2,3-Dihydroxy 5(6),12(13)diene	Terpe	17	750	66		Flavon	03	6.73
6	4-Hydroxybenzaldehyde	acids	0	3	0	Methoxyursolic acid	noids	3	2	6	ursolic acid	noids	7	0	7	Myricetin-O-rhamnoside	ols	5	891
kz0			1.	25.5	kz0			1.	45.1	kz0		Pheno	1.	107.	km			1.	
01	Quercetin-O-rutinoside-O-	Flavon	07	243	00		Flavon	06	000	00		lic	07	675	09	Quercetin 4'-O-glucoside	Flavon	09	6.97
38	rhamnoside	ols	06	4	84	Luteolin-O-sinapoylhexoside	es	83	0	05	3-O-p-Coumaroylshikimic acid	acids	94	00	34	(Spiraeoside)	ols	08	751

0			1	1			9	9		2			8
kz0			1.	kz0			1.	kz0		1.	kz0		1.
00		Pheno	06 29.0	01			07 45.7	04		08 116.	04		09
50		lic	82 967	97	Kaempferol-3-O-(cinnamoyl)-	Flavon	05 250	26		Coum	00 250	23	Terpe 08 7.06
7	Syringic Aldehyde	acids	2 7	3	sophoroside-7-O-glucose	ols	5 0	3	Osthole	arins	0 00	3	Terminolic acid noids 7 963
kz0			1.	kz0			1.	kz0			1.	kz0	1.
00			07 31.7	00			06 48.0	00		Pheno	08 116.	05	09
79		Flavon	17 674	15		Flavan	94 000	53		lic	12 500	24	Other 21 8.29
8	Luteolin-7-O-glucuronide	es	6 4	6	7-O-Methylethiodictyol	ols	2 0	7	3-Galloylshikimic acid	acids	9 00	7	Limonin s 4 162
kz0			1.	kz0			1.	kz0			1.	kz0	1.
02			07 32.2	03			06 50.8	01			08 160.	01	08 11.1
93		Flavan	36 000	72		Terpe	92 550	74	Quercetin-3-O-(2'',3''-digalloyl)-	Flavon	13 250	01	Other 75 623
6	Silibinin	ols	8 0	8	Geniposide	noids	3 9	0	β-D-glucopyranoside	ols	7 00	4	1-Methylhistamine s 1 6
kz0			1.	kz0			1.	kz0			1.	kz0	1.
02			07 33.3	04			07 58.5	00			08 177.	00	Pheno 09 11.5
97	Scutellarin(Scutellarein-7-O-	Flavon	35 034	26		Coum	10 500	19	E-3,4,5'-Trihydroxy-3'-	Other	00 000	50	lic 18 795
6	glucuronide)	es	6 8	3	Osthole	arins	5 0	7	glucopyranosylstilbene	s	1 00	0	Riboprine acids 4 4
kz0			1.	kz0			1.	kz0			1.	kz0	1.
01			07 36.8	00		Pheno	07 72.0	03		Pheno	08 197.	03	09 13.5
70		Flavon	15 866	05	Ethyl 3,4-Dihydroxybenzoate	lic	10 541	63		lic	06 250	87	Lup-12-en-15α,19β-diol- Terpe 08 318
2	Kaempferol-3-O-β-D-glucuronide	ols	3 0	2	(Ethyl protocatchuate)	acids	6 8	4	Sinapaldehyde Glucoside	acids	3 00	2	3,11-dioxo-28-oic acid noids 3 4
kz0			1.	kz0			1.	kz0			1.	kz0	1.
05		Pheno	06 37.3	01			06 78.2	01			08 199.	03	08 14.7
03		lic	48 268	19		Coum	95 500	09		Terpe	18 662	75	Quercetin-3- Flavon 98 661
7	Caffeoylferuloylshikimic?acid	acids	5 1	1	4-hydroxycoumarin di-glucoside	arins	5 0	0	Methoxyursolic acid	noids	1 16	5	sambubioside ols 3 8
kz0			1.	kz0			1.	kz0			1.	kz0	1.
00			07 38.1	03			07 84.8	01			07 260.	03	Quercetin-3-O-(2-O-α-L- 08 16.1
79	Tetahydroxy-flavone-7-O-β-D-	Flavon	30 397	87	Lup-12-en-15α,19β-diol-3,11-	Terpe	07 000	30		Organi	96 750	69	rhamnopyranosyl)-β-D- Flavon 93 188
7	glucuronide	es	9 7	2	dioxo-28-oic acid	noids	1 0	7	Phthalic acid	c acids	9 00	3	galactopyranoside ols 5 5
kz0			1.	kz0			1.	kz0			1.	kz0	1.
04			06 38.6	05			06 117.	01			08 261.	01	08 20.1
66		Flavon	22 390	04		Coum	91 550	97	Kaempferol-3-O-(cinnamoyl)-	Flavon	17 250	38	Quercetin-O-rutinoside- Flavon 89 122
7	Myricetin-O-rhamnoside	ols	8 5	3	Scopoletin?Beta-D-Glucuronide	arins	3 00	3	sophoroside-7-O-glucose	ols	6 00	0	O-rhamnoside ols 2 5
kz0			1.	kz0			1.	kz0			1.	kz0	1.
00		Pheno	07 44.9	00			07 120.	05			08 268.	00	09 21.5
51		lic	18 555	11		Flavon	12 000	04		Coum	12 000	14	Isoflav 23 339
5	Sinapinaldehyde	acids	3 7	8	Sakuranetin	es	6 00	3	Scopoletin?Beta-D-Glucuronide	arins	5 00	5	Formononetin ones 5 8
kz0			1.	kz0			1.	kz0			1.	kz0	1.
00			07 57.0	02			07 120.	02			08 291.	05	Pheno 08 25.9
89		Flavon	22 841	97		Flavon	10 750	60		Other	12 750	03	Caffeoylferuloylshikimic? lic 98 784
0	Quercetin-7-O-Glucoside	ols	6 1	5	Acacetin-7-O-glucuronide	es	0 00	7	Lariciresinol glucopyranoside	s	1 00	7	acid acids 2 5
km	Quercetin 4'-O-glucoside	Flavon	1. 58.3	kz0	wogonoside	Flavon	1. 131.	kz0	Uncargenin D	Terpe	1. 357.	kz0	6-Hydroxy-7- Coum 1. 49.2

09	(Spiraeoside)	ols	07	247	01		es	07	750	03		noids	08	000	03	methoxycoumarin	arins	09	059
34			25	9	69			11	00	76			18	00	16			24	6
			9		5			0		6			0		6			4	
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
00		Pheno	07	60.6	02			07	134.	00			08	389.	04			08	78.8
59	β-D-Furanofructosyl-α-D-(6-	lic	30	250	96	Penduletin (5,4'-Dihydroxy-	Flavon	11	000	17		Other	16	500	42	Luteolin-O-rutinoside-O-	Flavon	81	750
6	mustard acyl)glucoside	acids	5	0	2	3,6,7-trimethoxyflavone)	es	9	00	3	3-Hydroxypyridine	s	3	00	5	rhamnoside	es	2	0
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
04			07	78.8	04			06	138.	00		Pheno	08	397.	00			08	90.3
42	Luteolin-O-rutinoside-O-	Flavon	02	750	66	5,7,3',4',5'-	Flavan	95	500	53		lic	16	750	91	Robinin(Kaempferol-3-	Flavon	83	500
5	rhamnoside	es	4	0	5	pentahydroxydihydroflavone	ones	1	00	6	5-Galloylshikimic acid	acids	8	00	9	O-gal-rham-7-O-rham)	ols	0	0
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
00			06	90.3	04			06	148.	02			08	447.	01	2,3-Dihydroxy		09	98.4
91	Robinin(Kaempferol-3-O-gal-	Flavon	96	500	63		Terpe	25	483	19	2'-Hydoxy,5-methoxy Genistein-	Isoflav	05	000	08	5(6),12(13)diene ursolic	Terpe	23	750
9	rham-7-O-rham)	ols	5	0	0	2α-hydroxyursolic acid	noids	6	39	7	4',7-O-diglucoside	ones	4	00	6	acid	noids	0	0
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
00		Pheno	07	91.0	03			06	152.	00		Pheno	08	496.	03		Pheno	09	197.
50		lic	36	296	82	Quercetin 3-O-(6''-galloyl)-β-D-	Flavon	91	733	06		lic	16	750	63		lic	13	250
0	Riboprine	acids	7	1	9	galactopyranoside	ols	9	42	4	1-O-Feruloyl quinic acid	acids	3	00	4	Sinapaldehyde Glucoside	acids	9	00
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
00		Antho	07	92.2	01			06	160.	04		Pheno	08	502.	01			09	232.
73		cyanin	08	000	73	Quercetin-3-O-(2''-galloyl)-β-D-	Flavon	41	000	59		lic	13	750	17		Coum	22	750
3	Delphinidin-3,5-O-diglucoside	s	0	0	9	glucoside	ols	8	00	5	Geraniin	acids	7	00	7	Scoparone	arins	8	00
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
04	Quercetin 3-O-β-D-		06	116.	00		Antho	06	163.	03		Pheno	08	582.	03	3-Prenyl-4-O-β-D-	Pheno	09	316.
17	xylopyranosyl(1→2)-β-D-	Flavon	99	791	73		cyanin	99	500	50		lic	13	250	79	glucopyranosyloxy-4-	lic	09	750
2	galactopyranoside	ols	2	14	3	Delphinidin-3,5-O-diglucoside	s	8	00	4	Geraniinic acid C	acids	6	00	7	hydroxyl-benzoic acid	acids	8	00
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
00			07	125.	03		Pheno	06	174.	01		Pheno	08	714.	01		Pheno	09	733.
27		Alkaloi	35	750	10		lic	74	500	07		lic	16	000	83		lic	23	000
8	Indole 3-acetic acid (IAA)	ds	3	00	6	Cuspinin	acids	0	00	9	Galloyl Methyl gallate	acids	0	00	4	feruloylmalic acid	acids	6	00
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
03			07	160.	00		Pheno	07	179.	01		Pheno	08	733.	03			09	934.
75		Flavon	26	571	57		lic	10	000	83		lic	18	000	83	Quercetin-O-pentosyl-O-	Flavon	22	250
5	Quercetin-3-sambubioside	ols	4	23	5	3,5-Di-O-galloylshikimic acid	acids	0	00	4	feruloylmalic acid	acids	0	00	3	rhamnoside-O-glucoside	ols	0	00
kz0			1.		kz0			1.		kz0			1.		kz0			1.	
00		Pheno	07	199.	01		Pheno	07	196.	00			08	858.	00		Pheno	09	504
50		lic	17	250	07		lic	06	644	88		Flavon	14	750	55	Methyl 6-O-galloyl-β-D-	lic	24	5.00
5	Coniferyl alcohol	acids	9	00	6	Ethyl gallate	acids	7	74	6	Myricetin-3-O-arabinoside	ols	9	00	1	glucopyranoside	acids	5	000
kz0			1.	224.	kz0		Pheno	1.	197.	kz0			1.	114	kz0	Quercetin 3-O-β-D-		1.	113
00		Flavon	07	750	04		lic	07	250	03	Lup-12-en-15α,19β-diol-3,11-	Terpe	08	7.50	04	xylopyranosyl(1→2)-β-D-	Flavon	09	37.5
92	Quercetin-O-rutinoside-hexose	ols	33	00	76	monogalloyl-diglucose	acids	11	00	87	dioxo-28-oic acid	noids	18	000	17	galactopyranoside	ols	24	000

0		2		8		0		2		9		2		4	0
kz0		1.		kz0		1.				1.					
01		07	260.	00		Pheno	07	200.	km		Pheno	08	118		
30		18	750	06		lic	00	500	13		lic	19	7.50		
7	Phthalic acid	c acids	4	00	4	1-O-Feruloyl quinic acid	acids	3	00	00	Hydroxy-methoxycinnamate	acids	0	000	
kz0		1.		kz0				1.		kz0		1.			
02		07	264.	02				07	200.	03		Pheno	08	139	
91		33	500	96		Flavon	13	500	10		lic	16	2.50		
2	Santamarin	noids	7	00	0	Eupatilin	es	7	00	3	Gemin D	acids	2	000	
kz0		1.		kz0				1.		kz0		1.			
03	3-Prenyl-4-O-β-D-	Pheno	07	316.	04		Pheno	07	208.	02	Galloyl-	Pheno	08	163	
79	glucopyranosyloxy-4-hydroxyl-	lic	26	750	59		lic	03	000	06	HHDP(Hexahydroxydiphenoyl)-	lic	17	0.00	
7	benzoic acid	acids	3	00	5	Geraniin	acids	5	00	3	glueopy ranose	acids	5	000	
kz0		1.		kz0				1.		kz0		1.			
00		Pheno	07	326.	03		Pheno	07	232.	00			08	193	
05		lic	39	500	50		lic	08	750	88		Flavon	18	2.50	
5	3,4,5-Trimethoxycinnamic acid	acids	6	00	4	Geraniinic acid C	acids	4	00	1	Avicularin	ols	0	000	
kz0		1.		kz0				1.		kz0		1.			
00		07	389.	00			Pheno	07	248.	02			08	271	
17		Other	36	500	53		lic	13	000	21	Quercetin	3-O-β-D- Flavon	17	7.50	
3	3-Hydroxypyridine	s	9	00	7	3-Galloylshikimic acid	acids	3	00	1	xylopyranoside	ols	5	000	
kz0		1.		kz0				1.		kz0		1.			
02		07	420.	01				06	307.	00		Pheno	08	504	
29	Syringaresinol-4'-O-β-D-monO-	Lignan	31	250	74	Quercetin-3-O-(2'',3''-digalloyl)-	Flavon	93	250	55	Methyl	6-O-galloyl-β-D-	lic	19	5.00
5	glucoside	s	0	00	0	β-D-glucopyranoside	ols	0	00	1	glucopyranoside	acids	0	000	
kz0		1.		kz0				1.		kz0		1.			
00		Pheno	07	429.	00		Pheno	07	313.	00		Pheno	08	624	
50		lic	35	500	55	4-O-Caffeoyl quinic acid	lic	11	250	53		lic	19	2.50	
2	Coniferaldehyde	acids	8	00	2	(criptochlorogenic acid)	acids	4	00	2	Protocatechuic acid-4-glucoside	acids	2	000	
kz0		1.		kz0				1.							
04		Pheno	07	502.	01			07	331.						
59		lic	34	750	58		Flavon	13	000						
5	Geraniin	acids	9	00	4	Quercetin-3',4'-dimethyl ether	ols	4	00						
kz0		1.		kz0				1.							
03		Pheno	07	582.	01			07	353.						
50		lic	34	250	68	6-hydroxy-5,7,4'-	Flavon	14	750						
4	Geraniinic acid C	acids	8	00	0	trimethoxyflavone	es	5	00						
kz0		1.		kz0				1.							
01		Pheno	07	733.	00			07	379.						
83		lic	38	000	17		Other	13	750						
4	feruloylmalic acid	acids	8	00	3	3-Hydroxypyridine	s	4	00						
kz0	Myricetin-3-O-arabinoside	Flavon	1.	858.	kz0	E-3,4,5'-Trihydroxy-3'-	Other	1.	380.						

00		ols	07	750	00	glucopyranosylstilbene	s	07	250
88			36	00	19			10	00
6			0		7			7	
kz0			1.		kz0			1.	
00		Pheno	07	127	03			07	409.
04		lic	39	2.50	08	5,2'-Dihydroxy-7,8-	Flavon	13	500
7	Mandelic acid	acids	4	000	3	dimethoxyflavone glycosides	es	4	00
kz0			1.		kz0			1.	
00	1'-O-β-D-(3,4-	Pheno	07	130	00		Pheno	07	419.
07	Dihydroxyphenethyl)-O-caffeoyl-	lic	39	7.50	05		lic	13	000
8	glucoside	acids	0	000	9	3-O-p-Coumaroylshikimic acid	acids	3	00
kz0			1.		kz0			1.	
01			07	151	00			07	423.
01		Other	39	2.50	88		Flavon	12	750
4	1-Methylhistamine	s	8	000	6	Myricetin-3-O-arabinoside	ols	5	00
			1.		kz0			1.	
km		Pheno	07	539	01			07	482.
14		lic	39	7.50	30		Organi	10	250
37	p-Aminobenzoate	acids	6	000	7	Phthalic acid	c acids	0	00
			1.	217	kz0			1.	
km			07	75.0	02			07	606.
09		Flavon	39	000	60		Other	09	500
36	Quercetin 7-O-β-D-Glucuronide	ols	8	0	7	Lariciresinol glucopyranoside	s	6	00
					kz0			1.	
					03		Pheno	07	745.
					10		lic	05	750
					3	Gemin D	acids	5	00
					kz0			1.	
					03		Pheno	06	797.
					71	Maplexin D (2,4-Di-O-Galloyl-	lic	94	000
					6	1,5-Anhydro-D-Glucitol)	acids	8	00
					kz0			1.	
					02	Galloyl-	Pheno	06	800.
					06	HHDP(Hexahydroxydiphenyl)-	lic	89	500
					3	glueopy ranose	acids	0	00
					kz0			1.	
					02			07	806.
					33		Flavon	09	250
					7	Luteolin-7-O-β-D-gentiobioside	es	6	00
					kz0			1.	866.
					05	lyoniresinol-9'-O-β-D-	Lignan	07	000
					37	xylopyranoside	s	14	00

7			4	
kz0			1.	
00			07	950.
20		Other	13	750
7	Cannabiscitrin	s	7	00
kz0			1.	
00		Pheno	07	970.
61	1,3,4,6-Tetra-O-Galloyl-D-	lic	00	000
2	Glucose	acids	8	00
kz0			1.	
00		Pheno	07	103
53		lic	14	1.50
6	5-Galloylshikimic acid	acids	4	000
kz0			1.	
02			07	104
19	2'-Hydoxy,5-methoxy Genistein-	Isoflav	10	7.25
7	4',7-O-diglucoside	ones	6	000
kz0			1.	
00			07	106
03		Alkaloi	14	0.50
2	Caffeoylagmatine	ds	7	000
kz0			1.	
00		Pheno	07	118
54		lic	14	2.50
6	1-O-p-Coumaroyl quinic acid	acids	2	000
kz0			1.	
03		Pheno	07	119
71	Maplexin C (2,3-Di-O-Galloyl-	lic	07	7.50
7	1,5-Anhydro-D-Glucitol)	acids	2	000
km			1.	
		Pheno	07	123
13		lic	13	5.00
00	Hydroxy-methoxycinnamate	acids	4	000
kz0			1.	
00			07	127
18		Other	14	0.00
6	2-Deoxyribose 1-phosphate	s	4	000
kz0			1.	
01		Pheno	07	187
07		lic	13	5.00
9	Galloyl Methyl gallate	acids	1	000
kz0	Uncargenin D	Terpe	1.	199

	03		noids	07	0.00		
	76			13	000		
	6			8			
	kz0			1.			
	03			07	252		
	82	Kampferol	3-O-(2''-galloyl)-β-D-	Flavon	14	5.00	
	3	galactopyranoside	ols	4	000		
	kz0			1.			
	03			07	431		
	74		Terpe	09	5.00		
	8	7'-O-Sinapoyljasminoside L	noids	9	000		
	kz0			1.			
	00		Pheno	07	531		
	53		lic	09	0.00		
	0	Brevifolin carboxylic acid	acids	8	000		
	kz0			1.	112		
	00		Pheno	07	50.0		
	53		lic	14	000		
	2	Protocatechuic acid-4-glucoside	acids	0	0		
	kz0			1.	159		
	00			07	25.0		
	88		Flavon	14	000		
	1	Avicularin	ols	6	0		
	kz0			1.	182		
	02			07	25.0		
	21	Quercetin	3-O-β-D-	Flavon	14	000	
	1	xylopyranoside	ols	2	0		

Table S3. The proportion of classified metabolites of five *Rosa* fruits respectively.

Class	RRT-F	RSS-F	RLM-F	RDP-F	RSL-F
Flavonoids	34.04%	22.35%	45.14%	41.26%	35.13%
Phenolic acids	18.08%	14.33%	16.05%	16.06%	12.35%
Organic acids	16.17%	15.95%	14.59%	13.32%	16.33%
Terpenoids	11.38%	22.62%	7.57%	13.21%	17.18%
Alkaloids	4.89%	9.37%	5.10%	3.96%	5.10%
Lignans	4.06%	1.50%	1.29%	1.30%	0.59%
Vitamins	0.82%	0.87%	0.99%	0.68%	0.79%
Quinones	0.02%	0.01%	0.02%	0.03%	0.00%
Coumarins	0.27%	0.26%	0.46%	0.13%	0.53%
Others	9.43%	10.62%	8.61%	7.04%	10.12%

Table S4. List of relative content of differential metabolites (DEMs) among five *Rosa* fruits.

Compounds	Class	RRT-F		RSS-F		RLM-F		RDP-F		RSL-F	
		mean value	Proportion of peak area(%)	mean value	Proportion of peak area(%)	mean value	Proportion of peak area(%)	mean value	Proportion of peak area(%)	mean value	Proportion of peak area(%)
Quercetin 3-O-galactoside (Hyperin)	Flavonoids	7252500	1.6994±0.86 23	1880000	0.6004±0.30 25	2065000	0.5946±0.34 88	5190000	0.8572±0.21 6	2435000	0.5761±0.30 93
Biochanin A	Flavonoids	1473	0.0003±0.00 06	4890	0.0016±0.00 1	1645	0.0005±0.00 01	30825	0.0051±0.00 09	1875	0.0004±0.00 07
Genistein (4',5,7-Trihydroxyisoflavone)	Flavonoids	15550	0.0036±0.00 24	6593	0.0021±0.00 37	17400	0.005±0.005 1	43825	0.0072±0.01 13	42850	0.0101±0.01 4
Orobol (5,7,3',4'-tetrahydroxyisoflavone)	Flavonoids	47575	0.0111±0.03 35	54525	0.0175±0.04 05	95575	0.0275±0.04 42	297750	0.0491±0.11 17	158500	0.0375±0.08 84
Quercetin 3-O-glucoside (Isotrifoliin)	Flavonoids	6542500	1.534±0.542 5	1757500	0.561±0.392 6	1990000	0.5727±0.02 98	4802500	0.7927±0.29 45	2337500	0.5534±0.17 76
2'-Hydroxygenistein	Flavonoids	44175	0.0103±0.02 49	40625	0.013±0.040 9	85400	0.0246±0.08 17	269500	0.0446±0.06 98	124175	0.0295±0.07 49
Apigenin	Flavonoids	15125	0.0036±0.00 41	6663	0.0021±0.00 26	13950	0.004±0.004 8	39825	0.0066±0.00 67	37275	0.0088±0.01 27
Chrysoeriol	Flavonoids	14975	0.0035±0.00 34	7948	0.0025±0.00 3	8305	0.0024±0.00 21	27000	0.0045±0.00 09	3990	0.0009±0.00 16
(+)-cis,trans-Absciscic acid (ABA)	Others	1340000	0.314±0.122 4	926250	0.2958±0.07 27	589000	0.1695±0.01 96	576500	0.0952±0.03 41	684750	0.1621±0.04 14
3-(4-Hydroxyphenyl)propionic acid	Phenolic acids	782000	0.1833±0.04 49	210750	0.0673±0.06 2	37275	0.0107±0.00 97	309000	0.051±0.022 8	314000	0.0743±0.04 35
Afzelechin (3,5,7,4'-Tetrahydroxyflavan)	Flavonoids	409500	0.0961±0.06 85	252500	0.0806±0.00 54	583750	0.1681±0.06 53	860750	0.1421±0.04 89	6808	0.0016±0.00 22
Delphinidin 3-O-glucoside (Mirtillin)	Flavonoids	1147750	0.2679±0.31 94	113050	0.0361±0.07 81	40975	0.0118±0.04 36	237500	0.0392±0.09 78	62700	0.0149±0.06 28
Dihydroquercetin (Taxifolin)	Flavonoids	354500	0.0831±0.03 59	104700	0.0335±0.03 89	876250	0.2522±0.05 98	943250	0.1558±0.05 86	46125	0.0109±0.01 32
Epicatechin gallate (ECG)	Flavonoids	29600	0.0069±0.01 78	26400	0.0085±0.02 31	68300	0.0196±0.02 49	322250	0.0532±0.00 69	14025	0.0033±0.00 93
Genistein 7-O-Glucoside (Genistin)	Flavonoids	31950	0.0075±0.01 58	69250	0.0222±0.05 05	299750	0.0863±0.05 29	71575	0.0118±0.01 04	22650	0.0054±0.01 64
Hesperetin 7-rutinoside (Hesperidin)	Flavonoids	299500	0.0699±0.07 7	91250	0.0291±0.01 85	-	-	-	-	-	-
Kaempferol 3-O-galactoside (Trifolin)	Flavonoids	7455000	1.7476±0.73 86	3147500	1.0051±0.39 98	6052500	1.7407±0.97 84	12025000	1.9852±0.61 44	8360000	1.9785±1.47 68
Kaempferol 3-O-rhamnoside (Kaempferin)	Flavonoids	155750	0.0366±0.02 94	63900	0.0204±0.01 95	45725	0.0132±0.01 13	46925	0.0078±0.00 31	40150	0.0095±0.01 02

3-Hydroxy-4-isopropylbenzylalcohol 3-glucoside	Phenolic acids	60375	0.0142±0.01	78925	0.0252±0.02	24900	0.0072±0.00	163000	0.0269±0.01	44325	0.0105±0.00
3,4,5-Trimethoxyphenyl-β-D-Glucopyranoside	Phenolic acids	1237500	0.2904±0.21	459500	0.1468±0.06	7410000	2.1325±0.52	2117500	0.3496±0.07	692500	0.1641±0.08
1-O-Galloyl-β-D-glucose	Phenolic acids	1217500	0.285±0.145	1922500	0.614±0.054	3485000	1.0027±0.20	4240000	0.7±0.1678	2970000	0.7033±0.16
3-O-p-Coumaroyl quinic acid	Phenolic acids	59200	0.0139±0.01	585000	0.1869±0.11	21000	0.0061±0.01	883750	0.1458±0.08	619250	0.1465±0.08
1-O-p-Coumaroyl quinic acid	Phenolic acids	90375	0.0212±0.01	90500	0.0289±0.02	-	-	118250	0.0195±0.01	-	-
Trans-3-O-p-coumaric quinic acid	Phenolic acids	303500	0.0709±0.09	1960000	0.6267±0.81	77575	0.0223±0.00	994000	0.1644±0.22	509500	0.1207±0.09
1-O-[(E)-Caffeoyl]-β-D-glucopyranose	Phenolic acids	688250	0.1611±0.11	646250	0.2064±0.08	384750	0.1107±0.07	912500	0.1509±0.13	309500	0.0733±0.04
Coniferin	Phenolic acids	717250	0.1683±0.14	667250	0.2132±0.12	395750	0.1139±0.04	913750	0.1509±0.04	328000	0.0777±0.03
Methyl 6-O-galloyl-β-D-glucopyranoside	Phenolic acids	-	-	108250	0.0346±0.01	-	-	-	-	504500	0.1194±0.05
4-O-Caffeoyl quinic acid (criptochlorogenic acid)	Phenolic acids	49575	0.0116±0.01	12923	0.0041±0.01	-	-	31325	0.0052±0.00	-	-
Neochlorogenic acid(5-O-Caffeoylquinic acid)	Phenolic acids	206750	0.0484±0.05	84200	0.0269±0.03	15200	0.0044±0.00	104100	0.0172±0.01	-	-
Chlorogenic acid	Phenolic acids	363000	0.0851±0.09	310500	0.0991±0.06	50850	0.0146±0.00	201750	0.0333±0.01	73125	0.0173±0.01
1-Caffeoylquinic acid	Phenolic acids	165000	0.0386±0.02	64875	0.0207±0.00	59825	0.0172±0.03	78300	0.0129±0.01	-	-
Glucosyringic Acid	Phenolic acids	131250	0.0308±0.01	80300	0.0256±0.01	1002250	0.2885±0.10	280500	0.0463±0.01	47900	0.0113±0.01
Trihydroxycinnamoylquinic acid	Phenolic acids	365000	0.0854±0.05	404750	0.1293±0.09	322250	0.0927±0.03	1712500	0.2828±0.13	106850	0.0253±0.01
Ditartaroyl-hydroxylcoumarin	Phenolic acids	160250	0.0375±0.01	103800	0.0332±0.02	104650	0.0301±0.02	216750	0.0358±0.02	133500	0.0316±0.02
p-Coumaroylferuloyltartaric acid	Phenolic acids	149000	0.0349±0.00	35200	0.0113±0.01	22475	0.0065±0.00	226000	0.0373±0.00	52150	0.0123±0.00
3,5-Di-O-galloylshikimic acid	Phenolic acids	24150	0.0057±0.01	-	-	-	-	17900	0.003±0.004	-	-
Hexahydroxydiphenoylglucose	Phenolic acids	8770000	2.0557±1.75	711750	0.2272±0.09	1927500	0.5546±0.14	850000	0.1403±0.01	883500	0.2091±0.05
1,6-Di-O-Galloyl-D-Glucose	Phenolic acids	-	-	53025	0.0169±0.02	536250	0.1544±0.11	64100	0.0106±0.01	33000	0.0078±0.02
5-O-p-Coumaroyl quinic acid O-hexoside	Phenolic acids	12600	0.003±0.002	34425	0.011±0.003	11970	0.0035±0.00	87100	0.0144±0.01	4930	0.0012±0.00

Rosmarinyl Glucoside	Phenolic acids	37425	0.0088±0.02	53150	0.017±0.039	418750	0.1206±0.06	147000	0.0243±0.03	-	-
β-D-Furanofructosyl-α-D-(6-mustard acyl)glucoside	Phenolic acids	57475	0.0134±0.01	-	-	25725	0.0074±0.01	35475	0.0059±0.00	6063	0.0014±0.00
1,3,4,6-Tetra-O-Galloyl-D-Glucose	Phenolic acids	35075	0.0082±0.01	31125	0.01±0.0178	-	-	97000	0.0159±0.04	-	-
1,2,3,6-Tetra-O-Galloyl-D-Glucose	Phenolic acids	221750	0.0519±0.04	57675	0.0184±0.03	12750	0.0037±0.00	221750	0.0366±0.02	33325	0.0079±0.02
Cyanidin-3-O-galactoside	Flavonoids	78525	0.0184±0.03	18275	0.0058±0.01	24575	0.0071±0.01	54125	0.009±0.017	56200	0.0133±0.01
Cyanidin-3-O-glucoside (Kuromanin)	Flavonoids	75425	0.0176±0.02	16150	0.0052±0.00	21025	0.006±0.018	33600	0.0056±0.01	51675	0.0123±0.02
Delphinidin-3-O-glucoside (Mirtillin)	Flavonoids	1307500	0.3053±0.41	176500	0.0564±0.04	87975	0.0252±0.09	341500	0.0563±0.18	-	-
Cyanidin-O-syringic acid	Flavonoids	401750	0.0941±0.02	393750	0.1257±0.03	408750	0.1177±0.03	492500	0.0813±0.02	-	-
Delphinidin-3,5-O-diglucoside	Flavonoids	-	0.0027±0.00	-	-	-	-	16350	0.0027±0.00	9220	0.0022±0.00
Diosmetin	Flavonoids	26475	0.0062±0.00	15050	0.0048±0.00	19250	0.0055±0.00	50700	0.0084±0.00	8430	0.002±0.002
Apigenin 7-O-glucoside(Cosmosiin)	Flavonoids	24475	0.0058±0.00	75550	0.0241±0.02	254500	0.0732±0.04	74750	0.0123±0.01	25600	0.0061±0.01
Apigenin 5-O-glucoside	Flavonoids	41225	0.0097±0.01	99100	0.0317±0.01	399500	0.115±0.054	95350	0.0157±0.01	30700	0.0073±0.00
Luteolin-7-O-glucoside(Cynaroside)	Flavonoids	6285000	1.4714±2.04	2542500	0.8117±0.2	5360000	1.5431±1.32	10925000	1.8036±0.36	7795000	1.8452±0.35
Tetahydroxy-flavone-7-O-β-D-glucuronide	Flavonoids	57525	0.0134±0.01	24325	0.0078±0.00	3380000	0.9724±0.41	971250	0.1604±0.04	927750	0.2197±0.02
Luteolin-7-O-glucuronide	Flavonoids	72400	0.0169±0.01	26875	0.0086±0.01	3127500	0.9004±0.33	965500	0.1594±0.03	853750	0.2022±0.09
Chrysoeriol-5-O-hexoside	Flavonoids	2985000	0.7017±0.88	1145000	0.3656±0.16	1365000	0.3928±0.02	3000000	0.4954±0.19	2130000	0.5045±0.19
Tricin O-saccharic acid	Flavonoids	627250	0.1469±0.07	210500	0.0673±0.05	390500	0.1124±0.03	1055000	0.1742±0.05	637250	0.151±0.139
Chrysoeriol-7-O-rutinoside	Flavonoids	622000	0.1458±0.08	435250	0.1391±0.07	14975	0.0043±0.01	15675	0.0026±0.00	15175	0.0036±0.00
Diosmin	Flavonoids	1280000	0.2996±0.12	611000	0.0056±0.00	19450	0.0056±0.00	23225	0.0038±0.00	18200	0.0043±0.00
Luteolin-O-sinapoylhexoside	Flavonoids	24425	0.0057±0.00	4120	0.0013±0.00	-	-	4510	0.0008±0.00	2793	0.0007±0.00
Kaempferol	Flavonoids	86550	0.0203±0.00	18200	0.0058±0.00	16725	0.0048±0.00	28825	0.0048±0.00	80425	0.0191±0.00

Quercetin	Flavonoids	179500	0.042±0.014	70050	0.0224±0.02	136250	0.0393±0.07	269250	0.0444±0.05	208000	0.0493±0.02
Myricetin	Flavonoids	-	-	-	-	132500	0.0382±0.02	15300	0.0025±0.00	-	-
Avicularin	Flavonoids	1647500	0.3858±0.14	1397500	0.4461±0.20	-	-	1592500	0.2628±0.08	193250	0.0458±0.04
Kaempferol-3-O-glucoside (Astragalin)	Flavonoids	9242500	2.1617±1.26	3555000	1.1356±0.56	5887500	1.6945±1.24	12050000	1.9898±1.07	8607500	2.0363±1.28
Myricetin-3-O-arabinoside	Flavonoids	16718	0.0039±0.01	-	-	-	-	42375	0.007±0.007	85875	0.0203±0.03
Quercetin-3-O-β-D-Galactoside (Hyperin)	Flavonoids	2200000	0.5152±0.21	792750	0.2531±0.11	841500	0.2422±0.18	1997500	0.3298±0.07	1094750	0.259±0.111
Spiraeoside	Flavonoids	12450000	2.921±1.976	4995000	1.5948±0.47	5857500	1.6862±0.71	12450000	2.0562±0.39	6220000	1.4734±0.67
Quercetin-7-O-Glucoside	Flavonoids	235750	0.0553±0.07	133750	0.0427±0.08	190000	0.0547±0.02	1137500	0.1877±0.04	7635000	1.8075±0.62
6-Hydroxykaempferol-7-O-glucoside	Flavonoids	6770000	1.5855±0.42	1685000	0.538±0.233	1957500	0.5636±0.30	4647500	0.7667±0.41	2340000	0.5536±0.41
Tiliroside	Flavonoids	2932500	0.6866±0.44	3192500	1.0191±0.37	6352500	1.8279±0.58	18375000	3.0341±0.88	9890000	2.3417±0.36
Kaempferol-3-O-rutinoside(Nicotiflorin)	Flavonoids	267000	0.0626±0.03	607000	0.194±0.151	7642500	2.1985±0.71	765750	0.1264±0.05	1835000	0.4345±0.14
Kaempferol-3-O-robinobioside(Biorobin)	Flavonoids	244750	0.0574±0.04	556750	0.1779±0.11	7300000	2.1006±0.16	739750	0.1221±0.05	1672500	0.3958±0.30
Kaempferol-3-O-glucoside-7-O-rhamnoside	Flavonoids	6215	0.0015±0.00	9968	0.0032±0.01	99900	0.0288±0.03	8628	0.0014±0.00	27725	0.0066±0.00
Quercetin-3-O-robinobioside	Flavonoids	711000	0.1665±0.13	1605000	0.5125±0.19	5940000	1.7086±1.01	3340000	0.5514±0.23	2072500	0.4907±0.18
Quercetin-3-O-rutinoside (Rutin)	Flavonoids	638250	0.1494±0.09	1352500	0.432±0.101	4890000	1.4065±0.56	2687500	0.4438±0.13	1512500	0.3578±0.17
Quercetin-7-O-rutinoside	Flavonoids	616500	0.1443±0.10	1152500	0.3683±0.35	3927500	1.1305±0.70	2340000	0.3868±0.26	1392500	0.3297±0.22
Isorhamnetin-3-O-rutinoside (Narcissin)	Flavonoids	89175	0.0209±0.01	229000	0.0731±0.07	1037500	0.2987±0.11	282250	0.0466±0.03	91575	0.0217±0.00
6-Hydroxykaempferol-3,6-O-Diglucoside	Flavonoids	93925	0.022±0.018	17300	0.0055±0.01	97175	0.028±0.037	845000	0.1396±0.16	68300	0.0162±0.01
6-Hydroxykaempferol-7,6-O-Diglucoside	Flavonoids	376250	0.0881±0.03	44200	0.0141±0.00	115000	0.0331±0.02	393000	0.0649±0.03	166000	0.0393±0.02
Robinin(Kaempferol-3-O-gal-rham-7-O-rham)	Flavonoids	-	0.0023±0.00	-	-	187750	0.054±0.021	-	-	9035	0.0021±0.00
Quercetin-O-rutinoside-hexose	Flavonoids	9865	0.0023±0.00	-	-	9030	0.0026±0.00	10658	0.0018±0.00	22475	0.0053±0.00

6-Hydroxykaempferol-3,6-O-Diglucoside-7-O-Glucuronic Acid	Flavonoids	45575	0.0106±0.02	16750	3	13343	0.0039±0.01	10963	0.0018±0.00	5435	0.0013±0.00
			0.1057±0.09				0.0822±0.01		0.1539±0.11		0.0015±0.00
Afzelechin(3,5,7,4'-Tetrahydroxyflavan)	Flavonoids	450250	33	257500	66	659250	44	932750	25	6215	41
			0.6927±0.48				1.5331±0.60		0.941±0.207		0.006±0.014
Catechin	Flavonoids	2952500	37	1390000	6	5330000	92	5697500	7	25375	2
			0.0075±0.00				0.0332±0.01		0.036±0.022		
Epigallocatechin (EGC)	Flavonoids	32075	94	16450	84	115500	11	218000	3	-	-
			0.0125±0.01				0.0517±0.02		0.0616±0.01		
Gallocatechin	Flavonoids	53475	55	21925	7	179750	73	373000	17	-	-
			0.5708±0.13				0.028±0.008		0.0734±0.04		0.0073±0.00
Catechin-(7,8-bc)-4β-(3,4-dihydroxyphenyl)-dihydro-2-(3H)-pyranone	Flavonoids	2437500	96	945750	2	97250	7	444250	87	31000	45
			0.5539±0.10						0.0781±0.02		0.007±0.011
Catechin-(7,8-bc)-4α-(3,4-dihydroxyphenyl)-dihydro-2-(3H)-pyranone	Flavonoids	2365000	28	949750	03	102225	0.0294±0.01	472750	17	29500	1
			0.1111±0.02				0.0179±0.01		0.0685±0.04		0.0349±0.01
Pinoresinol	Lignans	474250	98	113250	42	62175	33	415000	37	147500	5
			0.026±0.007				0.0268±0.00		0.0179±0.00		0.0067±0.00
Syringaresinol	Lignans	111000	5	21625	34	93250	47	108250	38	28400	53
			1.292±1.429				0.0365±0.03		0.2661±0.11		0.2019±0.07
Terpineol monO-glucoside	Lignans	5512500	8	2410000	93	126750	28	1612500	7	852750	89
							0.0032±0.00		0.0022±0.00		0.0358±0.00
1-Methylhistamine	Others	-	-	-	-	10983	84	13550	46	151250	37
			0.0026±0.00				0.003±0.007		0.0075±0.00		0.0045±0.00
3-Amino-1-propionic sulfonic acid	Others	10905	4	9953	46	10388	4	45275	18	19050	74
			0.1191±0.03				0.4317±0.10		0.033±0.013		0.0169±0.00
4-Methyl-5-thiazoleethanol	Others	509000	9	438250	37	1500000	57	200000	3	71350	62
			0.0156±0.01				0.0066±0.00		0.0888±0.01		0.0972±0.00
D-Glucurono-6,3-lactone	Others	66725	79	58225	09	22975	84	537750	75	410750	87
			0.0334±0.02				0.0159±0.02		0.0316±0.02		0.0372±0.03
N-Acetyl-D-galactosamine	Others	142500	71	77475	95	55225	7	191750	2	157000	31
			0.0199±0.00				0.0129±0.00		0.0324±0.01		0.0088±0.00
N-Acetyl-D-glucosamine 1-phosphate	Others	84825	38	84275	67	44650	75	195750	35	37200	46
	Phenolic		0.6542±0.97				0.0361±0.02		0.8095±0.39		0.0353±0.00
Gallic acid	acids	2805000	86	197250	99	125500	99	4907500	94	149250	99
	Phenolic		0.0858±0.10				0.0161±0.01		0.0863±0.07		0.0317±0.02
Methyl gallate	acids	365000	06	66950	14	55875	83	522250	61	134000	31
	Phenolic		0.1608±0.09				0.0109±0.01		1.2334±0.21		0.0232±0.01
Ethyl gallate	acids	686000	58	26700	21	38000	66	7472500	24	97875	98
	Phenolic		0.0138±0.01						0.0309±0.02		0.0169±0.01
Galloyl Methyl gallate	acids	59125	22	56075	81	-	-	187500	88	71400	95
			0.0161±0.03				0.0232±0.02		0.2655±0.17		0.0809±0.07
Ursolic acid	Terpenoids	68975	23	66950	49	80675	51	1607500	7	341750	51

2,3-Dihydroxy 5(6),12(13)diene ursolic acid	Terpenoids	138750	0.0325±0.02	99325	0.0317±0.01	-	-	-	-	9848	0.0023±0.00
Maslinic acid	Terpenoids	7292500	1.7074±1.03	11275000	3.6007±0.70	4662500	1.3416±0.32	11725000	1.9369±0.84	11700000	2.7708±0.89
3,24-Dihydroxy-17,21-semiacetal-12(13)oleanolic acid	Terpenoids	7170000	1.6787±0.80	11075000	3.5365±0.80	4495000	1.2934±0.32	11600000	1.9151±0.70	11625000	2.7538±1.36
2-Hydroxyoleanolic acid	Terpenoids	7250000	1.6977±0.65	10900000	3.481±0.316	4565000	1.3133±0.48	11600000	1.9157±0.69	11600000	2.7478±1.13
Methoxyursolic acid	Terpenoids	179500	0.0421±0.03	347750	0.111±0.040	22200	0.0064±0.00	995000	0.1643±0.05	4432500	1.0495±0.28
Euscaphic acid	Terpenoids	10900000	2.5557±0.96	15550000	4.9661±1.28	4010000	1.154±0.121	7530000	1.2434±0.10	10875000	2.5754±0.59
Oleanolic acid 2-O-β-D-glucopyranoside	Terpenoids	24175	0.0057±0.00	34050	0.0109±0.00	4305	0.0012±0.00	15775	0.0026±0.00	52275	0.0124±0.00
Choline	Alkaloids	304250	0.0713±0.02	118750	0.0379±0.02	293750	0.0846±0.03	378500	0.0625±0.03	352750	0.0835±0.02
Betaine	Alkaloids	114500	0.0268±0.00	47925	0.0153±0.00	15800	0.0046±0.00	173000	0.0286±0.01	64650	0.0153±0.00
Nicotinic Acid Methyl Ester(Methyl Nicotinate)	Alkaloids	341000	0.0798±0.06	205500	0.0657±0.05	260250	0.0749±0.01	187750	0.031±0.007	29975	0.0071±0.00
Trigonelline	Alkaloids	2645000	0.6195±0.20	4447500	1.4208±0.73	637500	0.1835±0.05	6532500	1.0788±0.33	7162500	1.6961±0.62
6-Hydroxynicotinic acid	Alkaloids	10685	0.0025±0.00	31550	0.0101±0.01	10170	0.0029±0.00	77225	0.0127±0.00	76375	0.0181±0.01
Acetylcholine	Alkaloids	173000	0.0404±0.04	130750	0.0417±0.04	154750	0.0446±0.01	464250	0.0766±0.03	299250	0.0709±0.02
Lumichrome	Alkaloids	4158	0.001±0.002	13825	0.0044±0.00	45975	0.0132±0.00	13950	0.0023±0.00	35550	0.0084±0.01
Nicotinamide	Vitamins	907000	0.2125±0.01	680250	0.2172±0.05	179000	0.0515±0.01	411750	0.068±0.009	349250	0.0826±0.04
Nicotinic acid	Vitamins	1023000	0.2396±0.06	474750	0.1516±0.06	915750	0.2636±0.07	550500	0.0909±0.00	471750	0.1116±0.06
Pyridoxine	Vitamins	112750	0.0264±0.00	41850	0.0134±0.00	24100	0.0069±0.00	51750	0.0085±0.00	56475	0.0134±0.00
4-Pyridoxic acid	Vitamins	16900	0.004±0.005	12475	0.004±0.003	9175	0.0026±0.00	24400	0.004±0.003	29575	0.007±0.001
D-Pantothenic Acid	Vitamins	77900	0.0182±0.01	47725	0.0153±0.01	501000	0.1441±0.05	593000	0.0979±0.03	88950	0.021±0.068
Riboflavin	Vitamins	250500	0.0587±0.03	318500	0.1018±0.05	996750	0.287±0.154	208000	0.0344±0.02	333000	0.0788±0.07
Esculetin	Coumarins	185750	0.0435±0.01	47875	0.0153±0.02	48800	0.0141±0.02	143000	0.0236±0.02	83125	0.0197±0.02

Scoparone	Coumarins	145750	88	72475	52	20150	99	-	-	23275	56
			0.0342±0.01		0.0232±0.01		0.0058±0.00				0.0055±0.00
Skimmin	Coumarins	298500	55	87925	9	83975	4	76900	96	404500	18
			0.0699±0.02		0.028±0.037		0.0242±0.02		0.0127±0.00		0.0959±0.06
Esculin(6,7-DihydroxyCoumarin-6-glucoside)	Coumarins	49050	16	63225	35	118000	4	46825	03	192750	25
			0.0116±0.03		0.0202±0.03		0.034±0.020		0.0077±0.01		0.0456±0.03
4-hydroxycoumarin di-glucoside	Coumarins	210250	39	108500	35	-	-	7825	23	-	-
			0.0493±0.02		0.0347±0.02				0.0013±0.00		
Prunetin	Flavonoids	1385	03	5110	07	1848	05	31975	15	2050	09
			0.0003±0.00		0.0016±0.00		0.0005±0.00		0.0053±0.00		0.0005±0.00
Indole-3-carboxaldehyde	Alkaloids	33800	93	27275	05	72575	84	513500	45	501250	62
			0.0079±0.00		0.0087±0.02		0.0209±0.00		0.0848±0.02		0.1187±0.07
Indole-3-carboxylic acid	Alkaloids	32525	56	30800	91	37000	33	457250	82	569000	46
			0.0076±0.00		0.0098±0.00		0.0107±0.01		0.0755±0.02		0.1347±0.03
γ-Aminobutyric acid	Organic acids	11620	24	64275	37	9300	28	15250	2	11640	79
			0.0027±0.00		0.0205±0.01		0.0027±0.00		0.0025±0.00		0.0028±0.00
2-Furanoic acid	Organic acids	1130000	43	968500	27	359250	4	1011750	6	1029000	09
			0.2649±0.15		0.3093±0.12		0.1034±0.05		0.167±0.042		0.2436±0.06
Methylmalonic acid	Organic acids	2610000	25	1642500	74	2717500	0.782±0.119	5390000	0.89±0.1095	6855000	46
			0.6114±0.18		0.5247±0.15						1.6228±0.40
Succinic acid	Organic acids	2485000	18	1640000	53	2820000	0.8119±0.3	5500000	0.9081±0.06	6875000	5
			0.5823±0.40		0.5238±0.12						1.6277±0.58
L-Homoserine	Organic acids	260500	2	361750	35	98775	0.0285±0.02	329500	0.0544±0.02	308000	24
			0.061±0.030		0.1156±0.05		0.1261±0.12		0.2054±0.13		0.0725±0.36
Citraconic acid	Organic acids	14450000	65	4045000	19	438500	0.0776±0.06	1242500	0.1153±0.03	3182500	35
			3.3837±0.80		1.2919±0.11		0.0089±0.00		0.1538±0.10		0.0265±0.09
6-Aminocaproic acid	Organic acids	33600	57	94700	2	31050	0.0107±0.02	122500	0.0062±0.00	112425	39
			0.0079±0.00		0.0303±0.01		0.0107±0.02		0.0062±0.00		0.0142±0.00
Oxaloacetic acid	Organic acids	-	-	21475	12	37275	0.0776±0.06	37400	0.1153±0.03	60150	51
			0.1398±0.05		0.0576±0.07		0.0776±0.06		0.1153±0.03		0.1538±0.10
2-Methylsuccinic acid	Organic acids	597250	17	180000	88	269500	0.021±0.032	698250	0.0851±0.04	650000	41
			0.0702±0.02				0.021±0.032		0.0851±0.04		0.0639±0.07
(S)-(-)-2-Hydroxyisocaproic acid	Organic acids	299500	39	604500	0.193±0.084	72925	0.0444±0.04	515500	0.2571±0.03	270000	12
			0.1815±0.27		0.1544±0.14		0.0444±0.04		0.2571±0.03		0.2231±0.17
Malic acid	Organic acids	777750	65	483750	33	154250	0.028±0.028	1557500	0.2092±0.06	943000	84
			0.054±0.035		0.0454±0.01		0.028±0.028		0.2092±0.06		0.0481±0.05
4-Acetamidobutyric acid	Organic acids	230750	5	142000	57	97175	0.4915±0.19	1267500	0.8459±0.19	203000	57
			0.3099±0.25		0.1874±0.06		0.4915±0.19		0.8459±0.19		0.6102±0.01
4-Guanidinobutyric acid	Organic acids	1322500	31	587000	16	1707500	0.1207±0.16	5125000	0.178±0.060	2577500	8
			2.7695±0.74		1.4036±0.19		0.1207±0.16		0.178±0.060		0.4748±0.14
(Rs)-Mevalonic acid	Organic acids	11825000	26	4395000	14	420000		1077500		2005000	88

L-(+)-Tartaric acid	Organic acids	293750	52	213250	08	64075	27	2822500	76	336750	07
			0.0686±0.07		0.0681±0.03		0.0184±0.01		0.4658±0.22		0.0797±0.04
2,3-Dihydroxybenzoic Acid	Organic acids	7170000	12	11450000	9	1922500	04	9100000	8	7880000	62
			1.6784±0.37		3.656±1.068		0.5531±0.27		1.502±0.269		1.8661±0.96
Phthalic acid	Organic acids	25800	0.006±0.015	-	-	-	-	48225	2	26075	76
			0.9415±1.00		0.4564±0.33		2.4663±0.86		1.1152±0.36		1.1696±0.39
D-Xylonic acid	Organic acids	4032500	04	1430000	39	8570000	74	6755000	53	4940000	48
			0.2193±0.29		0.0359±0.06		0.1304±0.09		0.0404±0.02		0.0374±0.00
Shikimic acid	Organic acids	933000	48	112150	07	453250	9	244500	98	158000	92
			0.0228±0.02		0.0288±0.03		0.0287±0.02		0.016±0.030		0.0684±0.23
SubericAcid	Organic acids	97350	15	90150	47	99650	33	96900	8	290000	82
			0.9319±0.20		0.8862±0.12		1.3427±0.20		0.6123±0.14		2.4775±3.58
Anchoic Acid	Organic acids	3977500	04	2775000	9	4665000	34	3707500	14	10480000	32
			1.0087±0.42		0.693±0.130		2.1856±1.22		0.0894±0.02		0.2687±0.13
Quinic Acid	Organic acids	4305000	97	2170000	4	7592500	85	541000	42	1135000	09
					0.2027±0.15		0.1406±0.05		2.2761±1.20		1.4296±0.32
D-Galacturonic acid(Gal A)	Organic acids	504250	0.118±0.157	634500	08	488250	55	13800000	92	6037500	74
			0.0075±0.00		0.0162±0.00		0.0051±0.01		0.0066±0.00		
Procyanidin A1	Flavonoids	32175	67	50800	53	17725	64	40150	84	-	-
			0.3021±0.16		0.1485±0.06		0.6365±0.20		0.2041±0.10		
Procyanidin B2	Flavonoids	1290000	66	464750	22	2212500	17	1237500	44	-	-
			0.2141±0.07		0.1053±0.06		0.4796±0.20		0.1513±0.04		
Procyanidin B3	Flavonoids	913250	74	329750	76	1667500	34	916750	66	-	-
			0.2427±0.06		0.1145±0.08		0.5119±0.23		0.1642±0.04		
Procyanidin B1	Flavonoids	1035750	84	358500	91	1780000	05	995000	18	-	-
			0.0183±0.00		0.0111±0.01		0.0654±0.03		0.011±0.021		
Procyanidin C2	Flavonoids	77950	92	34825	76	227000	32	66475	6	-	-
			0.0015±0.00				0.0552±0.08		0.0013±0.00		0.0382±0.02
Quercetin-O-rutinoside-O-rhamnoside	Flavonoids	6525	56	6318	0.002±0.004	192000	18	8018	29	161250	64
			0.2793±0.10		0.1364±0.09		0.3987±0.22		0.2298±0.19		0.0239±0.05
Calceorioside B	Others	1192500	41	427000	23	1385000	83	1392500	08	100925	44
			0.0058±0.01		0.002±0.003				0.0055±0.00		
Quercetin-3',4'-dimethyl ether	Flavonoids	25000	18	6400	7	-	-	33100	59	-	-
			0.0063±0.01		0.0045±0.01		0.0047±0.00		0.0163±0.02		0.0442±0.04
Isotamarixin	Flavonoids	26825	17	14135	99	16350	78	98125	55	186750	89
			0.2085±0.11		0.3265±0.07		0.1164±0.07		0.1484±0.13		0.1164±0.04
Stachydrine	Alkaloids	889500	61	1022250	13	404500	83	898500	09	491750	17
	Phenolic acids		0.0064±0.00		0.0116±0.01		0.063±0.040		0.0673±0.05		0.0319±0.01
Oresbuisin A	Phenolic acids	27350	36	36225	88	219000	8	406750	64	134500	32
			0.0095±0.00		0.0257±0.02		0.0113±0.01		0.0113±0.01		0.0351±0.02
5'-Glucopyranosyloxyjasmanic acid	acids	40525	66	80650	19	39475	24	68500	03	148250	46

			0.0063±0.00		0.0051±0.00		0.0056±0.00		0.0079±0.00		0.002±0.002
5,7,2'-Trhiyroxy-8-methoxyflavone	Flavonoids	26825	42	16025	44	19450	54	48000	36	8228	2
									0.0058±0.00		
6-hydroxy-5,7,4'-trimethoxyflavone	Flavonoids	-	-	-	-	-	-	35375	14	-	-
			0.0019±0.00								
Tetramethyluteolin (3',4',5,7-Tetramethoxyflavone)	Flavonoids	7945	03	-	-	-	-	-	-	-	-
			0.005±0.003		0.002±0.002				0.0022±0.00		
wogonoside	Flavonoids	21325	9	6233	3	-	-	13175	21	-	-
			0.0151±0.00		0.0078±0.01		0.9526±0.50		0.1696±0.03		0.2118±0.07
Kaempferol-3-O-β-D-glucuronide	Flavonoids	64600	76	24250	38	3312500	91	1027000	6	894500	24
			0.0147±0.01		0.0166±0.00		0.0038±0.00		0.0165±0.00		0.0599±0.02
Isololiolide	Others	62825	22	52025	88	13150	48	99925	03	253000	72
			0.0032±0.00		0.0029±0.00		0.0017±0.00				0.0014±0.00
Stilbostemin B	Others	13800	25	9023	57	5913	31	6073	0.001±0.002	5973	19
			0.0099±0.00		0.0086±0.01						
Prunellin A	Others	42350	76	27000	43	-	-	-	-	-	-
			0.2376±0.16		0.1094±0.03		0.0036±0.01		0.3303±0.07		0.0054±0.01
Quercetin-3-O-(2''-galloyl)-β-D-glucoside	Flavonoids	1015500	87	342500	32	12500	39	2000000	85	22800	94
			0.0067±0.01		0.0044±0.01				0.0051±0.01		0.0038±0.00
Quercetin-3-O-(2'',3''-digalloyl)-β-D-glucopyranoside	Flavonoids	28575	9	13690	02	-	-	30725	47	16025	54
			0.4565±0.89		0.1699±0.29		0.1032±0.17		0.5155±0.29		0.8062±0.74
Methyl Brevifolincarboxylate	Others	1957500	54	531750	2	358500	06	3122500	5	3405000	81
	Phenolic		0.0075±0.02								
Tercatain	acids	31850	19	-	-	-	-	-	-	-	-
	Phenolic		0.0113±0.02		0.0205±0.01		0.0215±0.02		0.0159±0.01		0.0335±0.02
Salicylic acid	acids	48200	02	64250	63	74775	99	96300	25	141750	18
	Phenolic										
benzoylmalic acid	acids	128000	0.03±0.0292	-	-	-	-	-	-	-	-
	Phenolic		0.0238±0.02		0.019±0.016						
cinnamoyltartaric acid	acids	101375	51	59350	5	-	-	-	-	-	-
	Phenolic										0.0173±0.01
feruloylmalic acid	acids	-	-	-	-	-	-	-	-	73300	2
	Phenolic						0.0076±0.01		0.011±0.008		
vnilloylcaffeoyltartaric acid	acids	-	-	-	-	26300	19	66725	9	-	-
	Phenolic		0.007±0.007		0.0046±0.00		0.0054±0.00		0.0264±0.01		0.0047±0.00
feruloylsinapoyltartaric acid	acids	29925	1	14500	76	18850	44	160250	8	20000	81
			0.0022±0.00		0.0012±0.00				0.0008±0.00		0.0062±0.00
Kaempferol-3-O-(cinnamoyl)-sophoroside-7-O-glucose	Flavonoids	9558	14	3783	14	-	-	4573	09	26125	56
			0.0486±0.07		0.0138±0.00		0.0153±0.03		0.0266±0.09		0.0199±0.02
3,5,7,4'--Tetrahydroxy-Coumaronochromone	Others	207250	69	43125	74	53225	36	161000	13	84125	69
	Phenolic		0.1593±0.16		0.0193±0.04				0.0133±0.05		0.0386±0.04
Galloyl-HHDP(Hexahydroxydiphenoyl)-glueopy ranose	acids	679000	43	60575	59	-	-	80050	96	163000	69

4- α -L-Rhamnopyranosyl-ellagic acid	Phenolic acids	410000	0.0961±0.04	316250	0.101±0.085	531250	0.153±0.159	2385000	0.3944±0.33	6190000	1.4665±0.93
		22		9		1		57		06	
Angelicin	Coumarins	-	-	-	-	64575	0.0186±0.02	-	-	-	-
			0.0015±0.00		0.0017±0.00		0.0038±0.00		0.0065±0.01		0.0053±0.01
Isoluteolin (Orobol)(5,7,3',4'-tetrahydroxyisoflavone)	Flavonoids	6403	18	5348	11	13060	99	39575	88	22100	08
			0.0131±0.00		0.038±0.050		0.1597±0.39		0.0251±0.04		0.011±0.026
2'-Hydoxy,5-methoxy Genistein-O-rhamnosyl-glucoside	Flavonoids	56075	57	119150	9	553500	41	151750	92	46600	8
			0.0031±0.00		0.0174±0.01				0.0173±0.02		0.0106±0.02
2'-Hydoxy,5-methoxy Genistein-4',7-O-diglucoside	Flavonoids	13025	27	54475	67	-	-	104725	53	44700	65
			0.0026±0.00		0.0271±0.00						
Farrerol 7-O-glucoside	Flavonoids	11183	22	84825	97	-	-	-	-	-	-
			0.4398±0.29		0.5469±0.19				0.3005±0.22		0.0645±0.09
Quercetin 3-O- β -D-xylopyranoside	Flavonoids	1875000	29	1712500	05	-	-	1822500	95	271750	37
			0.0112±0.02		0.0123±0.02						
Azalein (Azaleatin-3-O-rhamnoside)	Flavonoids	48225	81	38375	16	-	-	-	-	-	-
			1.6214±0.38		0.5669±0.23		0.5937±0.19		0.8041±0.32		0.5555±0.24
isohyperoside	Flavonoids	6917500	34	1775000	13	2062500	86	4872500	91	2345000	15
			0.1075±0.06		0.0363±0.00		0.0173±0.01		0.0672±0.05		0.0355±0.00
Epipinoresinol	Lignans	458750	89	113750	33	60075	11	407250	39	150000	45
			0.0366±0.00		0.0267±0.00		0.0093±0.01		0.0563±0.01		0.0193±0.01
Olivil-4'-O- β -D-glucoside	Lignans	156250	58	83425	92	32475	03	341000	72	81425	26
			0.0919±0.11		0.0381±0.01		0.0026±0.01		0.029±0.022		0.0292±0.01
Eucommin A	Lignans	391250	41	119250	46	8983	12	175250	5	123500	8
			0.0065±0.00		0.0106±0.01		0.0054±0.01		0.0028±0.00		0.023±0.021
Eucommia	Others	27550	62	33275	44	18875	05	17125	39	97250	2
			0.0101±0.00				0.074±0.114		0.0791±0.05		0.0099±0.01
Syringaresinol-4'-O- β -D-monO-glucoside	Lignans	43075	62	-	-	257250	5	479000	13	42025	93
			0.0042±0.00		0.0025±0.00				0.0133±0.02		0.0016±0.00
Luteolin-7-O- β -D-gentiobioside	Flavonoids	17675	77	7980	94	-	-	80625	16	6625	21
			0.0141±0.01		0.0065±0.01		0.0091±0.01		0.0087±0.00		
Methyl dioxindole-3-acetate	Others	60400	69	20375	52	31600	05	52950	68	-	-
			1.9929±0.23		5.7392±1.85		2.7922±0.15		1.0822±0.27		1.0214±0.43
Ergotamine	Alkaloids	8505000	77	17975000	8	9702500	57	6555000	89	4315000	59
			0.0021±0.00		0.003±0.005		0.0112±0.01		0.0235±0.01		0.0009±0.00
3-methoxy-juglone	Quinones	8800	4	9238	6	39075	62	142250	94	3980	46
			0.0162±0.00		0.0145±0.01				0.0103±0.00		0.0032±0.00
1,4,8-trihydroxy naphthalene-1-O- β -D-glucopyranoside	Quinones	68975	37	45275	48	50875	0.0147±0.03	62350	77	13475	46
			0.0145±0.00		0.0201±0.01		0.0991±0.05		0.037±0.016		0.0133±0.01
Isosalicylic acid O-glycoside	Phenolic acids	61900	93	63025	66	344500	02	224000	3	56350	61
			0.1292±0.13		0.0172±0.02		0.0252±0.00		0.0475±0.02		0.0243±0.02
p-Coumaric acid-O-glycoside	Phenolic acids	550500	77	54075	22	87725	95	287250	58	102650	25

Vanillic acid glycoside	Phenolic acids	15300	93	13950	76	11645	17	106250	95	19800	33
			0.0036±0.00		0.0045±0.00		0.0034±0.01		0.0176±0.00		0.0047±0.00
Isosinapic acid-hexoside	Phenolic acids	61450	19	97150	0.031±0.041	74225	1	44050	05	-	-
			0.0145±0.02				0.0214±0.01		0.0073±0.01		
Sinapic acid-glycoside	Phenolic acids	28950	64	14475	6	72900	5	120250	44	41600	75
			0.0068±0.00		0.0046±0.00		0.021±0.014		0.0199±0.01		0.0099±0.00
p-Hydroxycinnamic acid	Phenolic acids	180750	02	28550	28	48150	02	97800	29	110250	97
			0.0423±0.02		0.0091±0.02		0.0139±0.01		0.0162±0.01		0.0261±0.00
4-O-glucosyl-4-hydroxybenzoic acid	Phenolic acids	65850	54	66300	87	330250	3	214250	31	60975	26
			0.0154±0.01		0.0212±0.00		0.095±0.054		0.0354±0.04		0.0144±0.02
4-O-glucosyl-3,4-dihydroxybenzyl alcohol	Phenolic acids	69450	93	19150	42	143500	61	91275	15	-	-
			0.0163±0.01		0.0061±0.00		0.0413±0.01		0.0151±0.01		
6-O-caffeoyl-β-glucose	Phenolic acids	826250	35	673250	88	453000	08	966000	24	321250	71
			0.1938±0.19		0.2151±0.08		0.1304±0.10		0.1596±0.07		0.0761±0.03
6-O-feruloyl-α-glucose	Phenolic acids	20000	82	27125	03	287250	2	124750	92	15875	75
			0.0047±0.01		0.0087±0.01		0.0827±0.06		0.0206±0.00		0.0038±0.00
Kaempferol-3-O-(6''-acetyl)-glucoside	Flavonoids	33475	39	12110	53	236000	77	55625	44	35825	5
			0.0078±0.00		0.0039±0.00		0.0679±0.03		0.0092±0.00		0.0085±0.01
Lariciresinol glucopyranoside	Others	189500	98	84900	43	-	-	60650	69	29175	05
			0.0444±0.00		0.0271±0.02				0.0101±0.01		0.0069±0.01
Betulinic acid	Terpenoids	1196	16	4220	29	870	08	7738	36	10005	55
			0.0003±0.00		0.0014±0.00		0.0003±0.00		0.0013±0.00		0.0024±0.00
Ovalifoliolides B	Terpenoids	17575	37	16750	3	-	-	4450	21	-	-
			0.0041±0.00		0.0054±0.00				0.0007±0.00		
Eriodictyol-O-glucoside	Flavonoids	337500	9	1360000	4	121500	3	1577500	56	43850	11
			0.079±0.025		0.4342±0.14		0.035±0.015		0.2605±0.03		0.0104±0.01
Quercetin-3-O-(6''-O-acetyl)-galactoside	Flavonoids	87125	16	16875	78	228250	6	21325	24	23150	72
			0.0205±0.02		0.0054±0.00		0.0657±0.01		0.0035±0.00		0.0055±0.00
Nortrachelogenin 4-O-β-D-glucoside	Lignans	159000	82	70725	47	34575	61	47050	69	29075	08
			0.0373±0.02		0.0226±0.02		0.0099±0.01		0.0078±0.00		0.0069±0.02
Kaempferol 3-O-β-d-(6''-O-(E)-p-coumaroyl) glucopyranoside	Flavonoids	2350000	19	2400000	21	3787500	68	11975000	28	6090000	07
			0.5508±0.22		0.7658±0.79		1.0904±0.56		1.9773±0.78		1.4412±0.63
Sexangularetin 3-glucoside-7-rhamnoside	Flavonoids	53850	9	123825	17	594750	3	148250	13	39075	83
			0.0126±0.01		0.0395±0.05		0.171±0.479		0.0245±0.04		0.0093±0.01
Dimethylmalonic acid	Organic acids	49525	62	17050	28	26300	31	58900	31	54400	85
			0.0116±0.00		0.0054±0.01		0.0076±0.01		0.0097±0.01		0.0129±0.01
Limocitrin 7-glucoside	Flavonoids	-	-	110350	91	-	-	-	-	-	-
			0.0352±0.03		0.1303±0.06		0.3833±0.41		0.2219±0.14		0.0259±0.02
Isorhamnetin-7-O-glucoside	Flavonoids	1145500	99	407750	75	1332500	29	1345000	72	109575	05
			0.2675±0.34		0.1911±0.09		0.0556±0.03		0.0907±0.04		0.0371±0.00
Dihydroisopelletierine	Alkaloids	602000	3	598250	71	193250	43	549500	81	156500	77

Dihydrosedinine	Alkaloids	257500	0.0604±0.02	62	254250	9	583250	37	220750	84	211750	83
Parthenolide	Terpenoids	126750	0.0297±0.02	05	285500	74	49200	82	71375	77	7830	19
Santamarin	Terpenoids	-	-	-	-	539000	54	31250	85	26450	82	0.0063±0.00
Ixerin D	Terpenoids	200000	0.0469±0.01	73	60750	85	32250	5	81725	94	88300	79
Silibinin	Flavonoids	-	-	-	-	791500	84	55700	28	3220	04	0.0008±0.00
Hispidulin	Flavonoids	13375	0.0031±0.00	27	7553	09	7200	22	28225	16	3398	19
Eupatilin	Flavonoids	5053	0.0012±0.00	18	12400	7	-	-	20050	15	-	-
Penduletin (5,4'-Dihydroxy-3,6,7-trimethoxyflavone)	Flavonoids	3438	0.0008±0.00	09	9840	04	-	-	13400	25	-	-
Acacetin-7-O-glucuronide	Flavonoids	26750	0.0063±0.00	87	-	-	-	-	12075	9	-	-
Scutellarin(Scutellarein-7-O-glucuronide)	Flavonoids	74000	0.0173±0.01	71	25125	3	3185000	2	939000	0.155±0.084	836750	81
Diosmetin-7-O-galactoside	Flavonoids	141500	0.0332±0.03	43	91625	0.0293±0.02	63625	47	167750	72	25625	81
Pratensein 7-O-glucopyranoside	Flavonoids	9428	0.0022±0.00	76	70500	43	-	-	4443	11	-	-
Diosmetin-7-O-glucuronide	Flavonoids	41725	0.0098±0.01	78	-	-	-	-	-	-	-	-
6-methoxykaempferol-3-O-glucoside	Flavonoids	1145000	0.2684±0.15	87	404500	04	1417500	51	1427500	96	112150	91
Patuletin-3-O-β-D-glucopyranoside	Flavonoids	80025	0.0188±0.02	52	-	-	-	-	-	-	-	-
Luteolin-7-O-rutinoside	Flavonoids	61050	0.0143±0.02	56	102175	3	1151500	73	112500	36	306000	2
Quercetin-7-O-(6'-O-malonyl)-β-D-glucoside	Flavonoids	45875	0.0107±0.01	81	26225	33	47750	71	109825	55	10620	45
3-O-(2-O-Acetyl-β-D-glucopyranosyl) oleanolic acid	Terpenoids	595500	0.1396±0.09	91	948250	09	250000	2	2460000	72	2002500	14
5,2'-Dihydroxy-7,8-dimethoxyflavone glycosides	Flavonoids	-	0.001±0.001	-	2980	5	-	-	40950	46	-	-
3,4-Di-O-galloyl-shikimic acid	Phenolic acids	173250	0.0406±0.01	89	119550	59	132500	68	1013250	02	348250	53
3-O-Digalloyl quinic acid	Phenolic acids	109000	0.0254±0.04	31	18000	59	3880000	46	168250	0.0277±0.03	37225	62

Di-O-Glucose-quinic acid	Phenolic acids	2912500	2	0.6845±0.73	832000	59	756500	37	0.2179±0.12	300250	54	163000	0.0497±0.05	93	0.0386±0.01
5-O-Galloylhamamelose	Phenolic acids	6890000	08	1.6138±0.32	1595000	04	1170000	87	0.3367±0.09	6340000	02	689750	1.0467±0.27	51	0.1634±0.05
Gemin D	Phenolic acids	626000	59	0.1467±0.11	58875	07	-	-	0.0188±0.05	74575	49	139250	0.0123±0.02	89	0.0329±0.03
Nobotanin D	Phenolic acids	32375	41	0.0076±0.01	-	-	-	-	0.0041±0.00	-	-	-	0.0029±0.00	-	-
Cuspinin	Phenolic acids	99675	33	0.0233±0.03	12700	75	-	-	0.0711±0.04	17450	92	-	0.0987±0.08	-	0.0802±0.14
mlyricetin 3-O-B-D-glucopyranoside	Flavonoids	864250	76	0.2028±0.19	223250	1	247000	11	0.0712±0.08	598750	57	338750	0.0769±0.04	6	0.0081±0.01
Mearnsitrin	Flavonoids	252250	3	0.059±0.058	115500	2	529500	08	0.1524±0.05	465500	82	34225	0.0769±0.04	03	0.0083±0.01
2,4,6-trihydroxy benzoic acid	Organic acids	98725	14	0.0233±0.06	117250	47	26725	75	0.0374±0.02	99675	0.0164±0.02	35175	0.0077±0.01	38	0.0126±0.01
Clemaphenol A	Lignans	189750	26	0.0443±0.04	6865	72	12950	23	0.0022±0.00	76150	28	-	0.0126±0.01	-	-
Ailantinol E	Others	27050	54	0.0063±0.00	10030	34	365500	62	0.0032±0.00	128250	33	39650	0.1051±0.05	64	0.0212±0.00
Ailanindole	Alkaloids	50850	96	0.0119±0.00	20575	65	35575	1	0.0102±0.02	218250	68	29550	0.0361±0.11	33	0.0069±0.05
6-Hydroxy-7-methoxycoumarin	Coumarins	16900	17	0.0039±0.01	82275	63	1102500	62	0.0263±0.01	20150	22	991500	0.3173±0.09	85	0.0033±0.00
Ayapin	Coumarins	230250	7	0.054±0.014	168250	51	275000	72	0.0537±0.01	228750	48	643750	0.0791±0.01	13	0.1521±0.25
Tubuloside C	Phenolic acids	63350	22	0.0149±0.02	38650	96	11050000	8	0.0123±0.02	219250	68	287500	0.0362±0.02	54	0.0681±0.05
Swertiamarin	Terpenoids	52350	21	0.0123±0.01	15950	41	54050	11	0.0051±0.01	51950	02	-	0.0156±0.02	-	0.0086±0.01
3-O-Galloyl-β-D-glucose	Phenolic acids	7002500	39	1.6421±0.83	1620000	33	1160000	98	0.3339±0.14	6420000	22	680750	1.0596±0.23	65	0.1612±0.05
2-O-Galloyl-β-D-glucose	Phenolic acids	1547500	49	0.3624±0.20	2542500	4	4562500	85	0.8121±0.17	5400000	15	3882500	1.3133±0.23	86	0.8913±0.30
Geraniinic acid C	Phenolic acids	22400	69	0.0052±0.01	-	-	-	-	0.0037±0.00	23275	52	58225	0.0038±0.00	87	0.0138±0.01
Glucosyloxybenzoic acid	Phenolic acids	66875	97	0.0157±0.02	60200	7	280250	22	0.0192±0.01	214250	97	60575	0.0807±0.03	93	0.0354±0.01
5-(2-Hydroxyethyl)-2-O-glucosylohenol	Phenolic acids	674750	46	0.1583±0.13	827500	8	589000	56	0.2645±0.22	437000	98	41700	0.1695±0.04	35	0.0722±0.06
Cimidahurinine	Phenolic acids	944000	02	0.2213±0.20	1187500	99	828000	5	0.3793±0.11	639000	3	46950	0.2384±0.10	97	0.1052±0.14

			0.0771±0.05				0.0334±0.02		0.2489±0.03		0.0106±0.00
Dihydrokaempferol-7-O-glucoside	Flavonoids	329250	12	1427500	0.4556±0.29	116000	16	1507500	25	44750	98
			1.7237±0.76		3.5036±1.23		1.3217±0.23		1.9697±0.63		2.7889±0.88
Hederagenin	Others	7357500	54	10975000	25	4592500	09	11925000	76	11775000	28
			0.1516±0.04		0.2263±0.17		0.3389±0.14		0.6618±0.34		0.4667±0.34
Biondnoid I	Flavonoids	647250	49	709250	43	1177500	35	4007500	77	1970000	02
	Phenolic				0.0797±0.03						0.0047±0.00
Sinapaldehyde Glucoside	acids	-	-	249500	37	-	-	-	-	19725	91
	Phenolic		0.0326±0.02		0.0172±0.02		0.0084±0.01		0.0155±0.01		
Plantainoside A	acids	139500	87	53975	11	29225	01	93925	22	-	-
			0.6574±0.30		0.2902±0.34		0.5114±0.35		0.6302±0.28		0.6012±0.12
Quercetin-3-O-α-L-rhamnopyranoside	Flavonoids	2807500	78	907750	04	1777500	84	3817500	68	2540000	78
			0.0025±0.00		0.0037±0.00		0.0715±0.09		0.0016±0.00		0.0363±0.04
Quercetin-3-O-(2-O-α-L-rhamnopyranosyl)-β-D-galactopyranoside	Flavonoids	10833	49	11548	47	248500	04	9508	2	153250	73
	Phenolic		1.6319±0.32		0.5135±0.21		0.3246±0.14		1.0749±0.29		0.158±0.103
6-O-Galloyl-β-D-glucose	acids	6970000	06	1607500	7	1127500	28	6510000	02	667000	7
	Phenolic		0.1145±0.06		0.0204±0.03				0.0131±0.04		
Maplexin D (2,4-Di-O-Galloyl-1,5-Anhydro-D-Glucitol)	acids	489250	55	63925	77	-	-	79700	82	-	-
	Phenolic		0.1479±0.18		0.0361±0.05				0.0198±0.04		
Maplexin C (2,3-Di-O-Galloyl-1,5-Anhydro-D-Glucitol)	acids	633500	5	112975	38	-	-	119750	75	-	-
	Phenolic		0.0336±0.05		0.0163±0.01		0.0059±0.01		0.1448±0.11		0.0337±0.04
2,3-Di-O-Galloyl-D-Glucose	acids	144250	5	51050	95	20525	44	877000	71	142500	11
	Phenolic		0.0943±0.04		0.0214±0.03		0.0063±0.01		0.0035±0.00		0.0023±0.00
Methyl 4,6-di-O-galloyl-D-glucoside	acids	402250	75	67075	34	22025	89	21150	46	9753	93
	Phenolic		0.0797±0.09		0.0558±0.06		0.0071±0.01		0.0901±0.06		0.0154±0.02
Maplexin H	acids	340500	53	174750	97	24575	37	545250	66	65050	76
	Phenolic		0.0164±0.02		0.0083±0.01		0.0067±0.01		0.028±0.028		0.0122±0.01
Maplexin G	acids	70350	06	26100	16	23375	42	169500	3	51550	28
			0.0114±0.01		0.0071±0.01		0.008±0.011		0.2334±0.34		0.0261±0.07
Geniposide	Terpenoids	48475	19	22375	11	27775	6	1412500	39	110000	17
			0.0805±0.09		0.0116±0.01				0.0712±0.12		0.0021±0.00
7'-O-Sinapoyljasminoside L	Terpenoids	343500	46	36350	25	-	-	431500	39	8953	27
					0.0023±0.00		0.0167±0.02		0.0129±0.01		0.2729±0.16
Quercetin-3-sambubioside	Flavonoids	-	-	7178	43	58050	52	78050	54	1152500	44
			0.0035±0.00		0.0036±0.00		0.002±0.006		0.0112±0.00		0.0238±0.01
Betulin	Terpenoids	14750	35	11280	51	6995	1	67550	77	100725	53
			0.0135±0.01		0.0362±0.01				0.0329±0.02		0.0085±0.00
Uncargenin D	Terpenoids	57575	63	113250	81	-	-	199000	94	35700	68
			0.0119±0.00		0.0312±0.03		0.0015±0.00		0.0154±0.00		0.0452±0.01
Obtusilin	Terpenoids	50800	27	97675	52	5290	37	93025	51	190750	7
			0.0077±0.01		0.0066±0.00		0.0029±0.00		0.0064±0.00		0.0059±0.01
Dihydromyricetin-O-glucoside	Flavonoids	32600	48	20525	75	10118	84	38775	26	25025	27

Syringic Aldehyde-glucoside	Phenolic acids	47975	92	54825	83	246500	23	-	-	-	-
			0.0113±0.01		0.0175±0.03		0.0708±0.10				
1'-O-vanilloyl-β-D-glucoside	Phenolic acids	24000	46	12148	67	13275	87	517500	69	31625	96
			0.0056±0.01		0.0039±0.01		0.0038±0.00		0.0854±0.02		0.0075±0.00
3-Prenyl-4-O-β-D-glucopyranosyloxy-4-hydroxyl-benzoic acid	Phenolic acids	19750	84	-	-	224750	59	-	-	31675	84
			0.0046±0.00				0.0647±0.06				0.0075±0.01
			0.0029±0.00		0.0043±0.00		0.0446±0.05		0.0209±0.01		
Sieboldin	Flavonoids	12475	69	13498	95	155250	23	126500	17	-	-
			0.0088±0.01		0.0062±0.00		0.0133±0.01		0.0084±0.00		0.0029±0.00
Kaempferol-malonyl-3-O-glucoside	Flavonoids	37600	66	19550	66	46300	31	51000	41	12210	41
			0.0009±0.00		0.0009±0.00		0.0031±0.00		0.0012±0.00		
Isorhamnetin O-malonylglucoside	Flavonoids	3805	19	2863	1	10730	66	7090	1	-	-
			0.0069±0.01		0.0056±0.00		0.0251±0.02		0.0365±0.04		0.0087±0.01
Kaempferol 3-O-(6''-trans-p-Coumaroyl)-β-D-glucopyranoside	Flavonoids	29425	35	17650	27	87225	41	221500	14	36725	92
			0.0384±0.05		0.0186±0.02		0.0028±0.00		0.0437±0.05		
Kampferol 3-O-(6''-galloyl)-β-D-galactopyranoside	Flavonoids	164250	73	58225	1	9803	72	265500	3	-	-
			0.0432±0.00		0.0213±0.03				0.0416±0.02		
Kampferol 3-O-(2''-galloyl)-β-D-galactopyranoside	Flavonoids	184250	27	66700	04	-	-	252500	34	-	-
			0.2451±0.19		0.1155±0.08		0.0038±0.00		0.3356±0.10		0.0055±0.01
Quercetin 3-O-(6''-galloyl)-β-D-galactopyranoside	Flavonoids	1046750	07	361500	29	13308	95	2032500	82	23375	17
					0.0023±0.00		0.0038±0.01				0.0222±0.03
Quercetin-O-pentosyl-O-rhamnoside-O-glucoside	Flavonoids	-	-	7253	14	13365	53	-	-	93425	83
			0.0806±0.04		0.0357±0.01		0.0026±0.00		0.0107±0.00		0.0008±0.00
Cinchonain Ic	Flavonoids	344500	42	111750	27	9093	32	64500	73	3258	15
			0.1186±0.04				0.1555±0.08		0.2962±0.11		0.1292±0.05
dihydrodehydrodiconiferyl alcohol 4-O-β-D-glucopyranosides	Lignans	506000	64	224000	0.0716±0.04	540250	6	1795000	68	545750	53
			0.0218±0.02		0.0142±0.03		0.7569±0.20		0.0546±0.02		0.024±0.015
(-)-secoisolariciresinol 4-O-β-D-giucopyranoside	Lignans	92900	01	44600	5	2630000	02	331000	58	101425	3
			0.1136±0.05		0.1154±0.03		0.0253±0.02		0.0252±0.02		0.0177±0.01
Roseoside	Others	484750	68	361250	97	87875	31	152500	58	74975	17
			0.0242±0.03		0.0223±0.02		0.0721±0.17		0.0174±0.01		0.0211±0.02
p-Coumaroyleuscaphic acid	Terpenoids	103525	27	69675	87	251000	89	105400	35	88775	77
			0.1534±0.22		0.1383±0.19		0.0281±0.02		0.2453±0.33		0.1171±0.09
Caffeoyl hawthorn acid	Terpenoids	652750	24	432500	54	97625	86	1485000	08	494500	09
			0.0204±0.00		0.0106±0.02		0.0037±0.00		0.0072±0.00		0.0041±0.00
3-O-Trans-feruloyl euscaphic acid	Terpenoids	87050	7	33275	38	12750	37	43325	68	17300	66
			0.0249±0.00		0.0837±0.07						
3β-Hydroxy-28-norurs-17,19,21-trien	Terpenoids	106500	89	262250	42	-	-	-	-	-	-
			0.1912±0.13		0.3695±0.23		0.0672±0.02		0.3823±0.03		0.3167±0.13
Sanguisorbigenin	Terpenoids	816750	16	1157500	69	233500	83	2315000	88	1337500	19
			0.0073±0.00		0.0312±0.01				0.0014±0.00		0.0272±0.00
Lup-12-en-15α,19β-diol-3,11-dioxo-28-oic acid	Terpenoids	31125	31	97575	04	-	-	8480	16	114750	95

Solatuberenol A	Others	792000	62	496250	36	87325	3	201750	27	107250	75
			0.1859±0.15		0.1582±0.29		0.0251±0.00		0.0333±0.02		0.0254±0.04
Cis-p-coumaric acid 4-O-glucoside	Others	511250	0.12±0.1038	48775	41	88575	6	286750	92	92275	2
			0.0025±0.00		0.0083±0.00		0.0032±0.00		0.0051±0.00		0.0063±0.02
6-Deoxyfagomine	Alkaloids	10460	4	26075	76	11018	42	30800	21	26750	07
			0.0008±0.00		0.0014±0.00		0.0055±0.00		0.0138±0.00		0.0017±0.01
3-Indoleacrylic acid	Alkaloids	3473	17	4493	52	19175	45	83575	37	7253	66
			0.0944±0.05		0.1997±0.12		0.0358±0.02				0.0695±0.06
L-Ascorbic acid	Vitamins	402750	15	625750	18	124250	14	726500	0.12±0.1355	293500	25
			0.2721±0.27		0.1383±0.17		0.3835±0.33		0.2201±0.15		0.0256±0.04
Isorhamnetin 3-O-β-D-Glucoside	Flavonoids	1161000	74	432500	85	1332500	44	1335000	42	107875	76
			0.2747±0.07		0.1309±0.03		0.4125±0.22		0.2289±0.17		0.0252±0.01
Rhamnetin 3-O-β-D-Glucoside	Flavonoids	1172500	27	409750	18	1432500	83	1387500	85	106350	11
			0.0391±0.07		0.0963±0.15		1.0773±1.03		0.0653±0.12		0.1876±0.11
Kaempferol 3-O-β-D-neohesperidoside	Flavonoids	166500	65	301500	33	3740000	23	394250	9	792000	49
					0.0031±0.00		0.0149±0.01				0.2683±0.30
Quercetin 3-O-β-D-xylopyranosyl(1→2)-β-D-galactopyranoside	Flavonoids	-	-	9708	97	51825	1	-	-	1133750	25
			0.1422±0.18		0.377±0.172		1.2055±0.81		0.3789±0.22		0.3289±0.42
Quercetin 3-O-β-D-neohesperidoside	Flavonoids	608750	55	1180000	8	4190000	66	2292500	58	1387500	55
			0.0262±0.03		0.0251±0.02		0.0438±0.04		0.0386±0.04		0.0026±0.01
Benzyl-O-β-D-glucopyranose-β-D-xyranoside	Others	111550	24	78475	1	152500	25	234250	2	11078	83
			0.0553±0.03		0.248±0.152		0.0115±0.01		0.0107±0.00		0.0018±0.00
Isothankunic acid	Terpenoids	236250	6	777000	9	39900	26	64950	78	7700	27
			0.0135±0.00		0.0491±0.02		0.0048±0.00		0.0021±0.00		0.0216±0.00
Terminolic acid	Terpenoids	57700	53	153750	1	16625	58	12925	17	91375	49
									0.0597±0.04		
Corosolic acid	Terpenoids	-	-	-	-	1880000	0.541±0.083	361500	29	-	-
			0.0017±0.00		0.0067±0.00						0.0028±0.00
Osthole	Coumarins	7198	15	20825	44	-	-	5855	0.001±0.001	11625	63
							0.0549±0.01				0.0019±0.00
Luteolin-O-rutinoside-O-rhamnoside	Flavonoids	-	-	-	-	190750	76	-	-	7888	6
	Phenolic		0.0095±0.03						0.0034±0.00		0.0119±0.01
Geraniin	acids	40475	45	-	-	-	-	20800	56	50275	55
			0.0114±0.02								
Methyl neochebulagate	Others	48950	11	-	-	-	-	-	-	-	-
	Phenolic				0.0173±0.01		0.1518±0.04		0.0076±0.01		0.0081±0.01
1,4-di-O-galloyl-β-D-glucose	acids	-	-	54150	77	527750	37	45900	59	34300	14
			1.7257±1.25		3.5684±0.82		1.359±0.304		1.911±0.264		2.7713±1.08
pomolic acid	Terpenoids	7362500	65	11175000	33	4722500	9	11575000	2	11700000	73
			1.7133±0.74		3.5049±0.96		1.3161±0.46		1.9324±0.56		2.7823±0.51
alphitolic acid	Terpenoids	7315000	95	10975000	39	4575000	83	11700000	06	11750000	12

2α-hydroxyursolic acid	Terpenoids	332000	0.0778±0.04	573000	0.183±0.012	51925	0.0149±0.09	7710000	1.2732±0.32	589750	0.1396±0.03
			76		6		21		61		76
isoceanothic acid	Terpenoids	2845000	0.6667±0.11	6472500	2.0672±0.44	134750	0.0388±0.01	1145000	0.1891±0.03	2412500	0.5712±0.09
			61		12		4		22		81
2α-hydroxypyracrenic acid	Terpenoids	318000	0.0747±0.06	188750	0.0602±0.04	72025	0.0207±0.00	734500	0.1214±0.08	248000	0.0586±0.06
			59		69		81		26		9
			0.0136±0.00		0.0042±0.00				0.0023±0.00		
5,7,3',4',5'-pentahydroxydihydroflavone	Flavonoids	58025	84	13150	83	-	-	13850	56	-	-
			0.0674±0.02		0.0542±0.28		0.0489±0.04		0.1599±0.10		1.5452±0.70
Myricetin-O-rhamnoside	Flavonoids	288000	3	169000	38	170000	27	969000	23	6530000	95
			0.0239±0.01		0.069±0.083		0.0605±0.03		0.1246±0.17		0.1507±0.08
Annuionone D	Others	101925	1	216000	5	210250	64	755750	09	636500	24
			0.0761±0.05		0.0426±0.03		0.0425±0.03		0.0544±0.02		0.0381±0.04
Taxifolin-3'-O-β-D-glucoside	Flavonoids	325250	8	133250	9	147750	39	329000	92	160750	86
7S,8R-threo-3',9,9'-trihydroxy-3-methoxy-4',7-epoxy-neolignan-4-O-α-L-rhamnopyranoside	Lignans	9767500	2.2825±2.49	1765000	0.5639±0.27	-	-	-	-	-	-
			14		42		-		-		-
			0.0051±0.00		0.0018±0.00		0.141±0.113		0.0509±0.04		
secoisolariciresinol 9-O-β-D-glucopyranoside	Lignans	21950	37	5478	61	489500	7	308000	46	-	-
			0.0057±0.00		0.0023±0.00		0.0012±0.00		0.0032±0.00		0.0008±0.00
Ligraminol E	Others	24250	39	7250	17	4320	33	19225	05	3508	22
			0.0695±0.02		0.0177±0.02		0.0155±0.00		0.0746±0.02		0.0036±0.00
4,7,9,9'-Tetrahydroxy-3,3'-dimethoxy-8-O-4'-neolignan	Others	296750	65	55350	16	53925	75	451750	82	15000	72
			0.002±0.002		0.0072±0.00		0.0027±0.00		0.0123±0.00		0.0119±0.04
N-Benzylmethylene isomethylamine	Alkaloids	8440	1	22525	32	9265	21	74425	23	50575	09
2-Hydroxy-5,8,11,14,17-icosapentaenoyloxy]propyl-2-(trimethylammonio)ethyl phosphate	Alkaloids	1532500	0.3589±0.15	2290000	0.731±0.327		0.0851±0.02		0.1644±0.04		0.4316±0.08
	Phenolic		84		4	295500	6	995750	34	1822500	3
	acids		0.0594±0.03						0.0033±0.00		
monogalloyl-diglucose		253750	89	-	-	-	-	19725	47	-	-
			0.3692±0.31		0.219±0.085		0.2368±0.06		0.0736±0.06		0.0039±0.00
Epicatechin glucoside	Flavonoids	1572500	58	685500	4	823000	41	446250	78	16425	71
			0.0175±0.00		0.038±0.011		0.0073±0.00		0.0008±0.00		
(2R)-Pinocembrin-7-neohesperidoside	Flavonoids	74525	56	119000	6	25275	23	4560	24	-	-
	Phenolic		0.0022±0.00		0.001±0.003		0.0007±0.00		0.0007±0.00		0.0271±0.01
Caffeoylferuloylshikimic?acid	acids	9225	26	3068	7	2373	08	4408	14	114500	23
			0.0059±0.00		0.0267±0.01				0.0019±0.00		0.0064±0.01
Scopoletin?Beta-D-Glucuronide	Coumarins	25100	41	83575	23	-	-	11755	43	26800	07
			0.0443±0.07		0.0179±0.02		0.0422±0.03		0.0401±0.04		0.0537±0.07
Dihydrokaempferol-3-O-β-D-glucoside	Flavonoids	189750	65	56075	41	146500	27	242750	31	227000	79
	Phenolic		0.6586±0.34		0.6184±0.43		0.0155±0.01				
Salireposide	acids	2810000	09	1937500	54	53925	48	-	-	-	-
			0.0139±0.00		0.0256±0.00		0.013±0.007		0.0282±0.00		0.0056±0.00
Chrysin-7-glucoside	Flavonoids	59500	54	80050	96	45225	6	170500	85	23625	41

Isolariciresinol 9'-O-Glucoside	Lignans	504000	0.1181±0.03 21	205750	0.0657±0.03 49	534750	0.1539±0.02 8	1760000	0.2907±0.10 32	534250	0.1263±0.10 59
5'-methoxyisolariciresinol-9'-O-β-D-xylopyranoside	Lignans	73875	0.0173±0.01 41	16025	0.0051±0.00 97	-	-	-	-	-	-
Iyoniresinol-9'-O-β-D-xylopyranoside	Lignans	863500	0.2024±0.15 73	259500	0.0829±0.01 66	-	-	86600	0.0143±0.00 36	-	-
5'-methoxyisolariciresinol-9'-O-β-D-glucopyranoside	Lignans	65550	0.0154±0.01 39	31950	0.0102±0.01 64	142750	0.041±0.032	231000	0.0382±0.00 97	166500	0.0394±0.04 39
Machilusolide D	Others	361000	0.0846±0.04 94	186500	0.0596±0.03 65	203500.00	0.0585±0.03	492000	0.0832±0.05 89	650667	0.1538±0.03 65
Byzantionoside A	Others	1455000	0.3417±0.29 52	440000	0.1407±0.19 86	79150.000	0.0228±0.04	277667	0.0455±0.02 28	38233	0.0093±0.01 28

Table S5. Potential markers and corresponding activities of five *Rosa* fruits.

NO.	Tentative identification	Class	Sub class	Pharmacological activity	Containing or not				
					RRT-F	RSS-F	RLM-F	RDP-F	RSL-F
1	Biochanin A	Flavonoids	Isoflavones	Fatty acid amide hydrolase (FAAH) inhibitor [1].				√	
2	Delphinidin 3-O-glucoside (Mirtillin)	Flavonoids	Anthocyanins	-	√				
3	Epicatechin gallate (ECG)	Flavonoids	Flavanols	Inhibit cyclooxygenase-1 [2].				√	
4	Genistein 7-O-Glucoside (Genistin)	Flavonoids	Isoflavones	Promote apoptosis of breast cancer cells [3]; Anti-adipogenic activity [4].			√		
5	Naringenin chalcone	Flavonoids	Flavanones	Anti-inflammatory and antiallergic activities [5].				√	
6	Quercetin 4'-O-glucoside (Spiraeoside)	Flavonoids	Flavonols	Antiallergic, anti-inflammatory and antitumor activities [6].					√
7	Quercetin 7-O-β-D-Glucuronide	Flavonoids	Flavonols	Modulate the LDL oxidation [7].					√
8	5-O-p-Coumaroyl shikimic acid	Phenolic acids	Hydroxycyclic acids	-	√				
9	Ethyl 3,4-Dihydroxybenzoate (Ethyl protocatechuate)	Phenolic acids	Hydroxybenzoic acids	Inhibits prolyl-hydroxylase and induces cell autophagy and apoptosis in ESCC cells [8]; Bone protecting-effect [9].				√	
10	1-O-Feruloyl quinic acid	Phenolic acids	Hydroxycyclic acids	-		√			
11	Catechin gallate	Phenolic acids	Hydroxybenzoic acids	Inhibit the activity of COX-1 and COX-2 enzymes [10].				√	
12	Formononetin	Flavonoids	Isoflavones	Inhibits FGFR2, angiogenesis and tumor growth in preclinical models [11].					√

13	7-O-Methyleriodictyol	Flavonoids	Flavanols	A flavanone phytoalexin associated with disease resistance in rice plants [12].	√		
14	Cannabiscitrin	Others	Others	-			√
15	O-Phosphocholine	Alkaloids	Alkaloids	-	√		
16	Citramalate	Organic acids	Organic acids	-		√	
17	(±)-jasmonic acid	Organic acids	Organic acids	-	√		
18	Methyl jasmonate	Organic acids	Organic acids	Enhance secondary metabolites and antioxidant activity [13].	√		
19	Sweroside	Terpenoids	monoterpenes	Cytoprotective and anti-osteoporotic [14]; hepatoprotective effect [15].			√
20	Phlorizin	Flavonoids	Chalcones	Antioxidant properties [16]; Non-selective SGLT inhibitor [17].			√
21	Eriodictyol 7-O-glucoside	Flavonoids	Flavanones	Nrf2 activator [18].			√
22	Pinobanksin	Flavonoids	Flavanols	Apoptotic induction in a B-cell lymphoma cell line [19]; Antiangiogenic effect [20].			√
23	4-Hydroxybenzaldehyde	Phenolic acids	Hydroxybenzoic acids	-			√
24	Cinnamic acid	Phenolic acids	Hydroxycyclic acids	Anticancer effects in vitro and antibacterial activity [21].	√		
25	Riboprine	Phenolic acids	HAs	An autophagy inhibitor with anti-melanoma activity [22].			√
26	Sinapinaldehyde	Phenolic acids	Hydroxycyclic acids	-			√
27	Brevifolin carboxylic acid	Phenolic acids	Hydroxybenzoic acids	-	√		
28	5-Galloylshikimic acid	Phenolic acids	Hydroxybenzoic acids	-	√		
29	3-Galloylshikimic acid	Phenolic acids	Hydroxybenzoic acids	-	√		
30	Trihydroxycinnamoylquinic acid	Phenolic acids	Hydroxycyclic acids	-			√
31	1,6-Di-O-Galloyl-D-Glucose	Phenolic acids	Hydroxybenzoic acids	Inhibitor of trypanosomal phosphofructokinase [23].		√	
32	Apigenin 7-O-glucoside(Cosmosiin)	Flavonoids	Flavones	Anti-proliferative and antioxidant activity [24]; Scavenge reactive oxygen species [25].		√	
33	Apigenin 5-O-glucoside	Flavonoids	Flavones	Anti-inflammatory activity [26].		√	
34	Tetahydroxy-flavone-7-O-β-D-glucuronide	Flavonoids	Flavones	-		√	
35	Luteolin-O-sinapoylhexoside	Flavonoids	Flavones	-	√		
36	Myricetin	Flavonoids	Flavanols	Anti-oxidant activity [27]; Anti-cancer activity [28]; Anti-inflammatory activities [29].		√	
37	Kaempferol-3-O-rutinoside(Nicotiflorin)	Flavonoids	Flavanols	Play a pharmacological role in VEGF-C-mediated anti-inflammation [30].		√	
38	Kaempferol-3-O-robinobioside(Biorobin)	Flavonoids	Flavanols	Inhibit the human lymphocyte proliferation in vitro [31].		√	

39	Kaempferol-3-O-glucoside-7-O-rhamnoside	Flavonoids	Flavonols	-			√		
40	Isorhamnetin-3-O-rutinoside (Narcissin)	Flavonoids	Flavonols	Antioxidant activity [32].			√		
41	6-Hydroxykaempferol-3,6-O-Diglucoside	Flavonoids	Flavonols	Antioxidant and anticancer activities [33].				√	
42	Robinin(Kaempferol-3-O-gal-rham-7-O-rham)	Flavonoids	Flavonols	Ameliorate oxidized low-density lipoprotein induced inflammatory [34]; Improve the reduction of inflammation in experimental arthritis [35].			√		
43	1-Methylhistamine	Others	Others	-					√
44	4-Methyl-5-thiazoleethanol	Others	Others	-			√		
45	Ethyl gallate	Phenolic acids	Hydroxybenzoic acids	Scavenger of hydrogen peroxide; Induce apoptosis in HL-60 cell [36].				√	
46	Ursolic acid	Terpenoids	triterpenoids	Resist cancer cells [37]; Decreases the serum levels of tumor necrosis factor- α , interleukin-6, and interleukin-1 β [38].				√	
47	Methoxyursolic acid	Terpenoids	triterpenoids	-					√
48	Pyridoxine	Vitamins	Vitamins	Antioxidant effects in cell model of Alzheimer's disease [39].	√				
49	Riboflavin	Vitamins	Vitamins	Antinociceptive activity [40]; Ameliorates cognitive impairment [41].			√		
50	Prunetin	Flavonoids	Isoflavones	Anti-inflammatory activity [42]; A potent human aldehyde dehydrogenases inhibitor [43].				√	
51	γ -Aminobutyric acid	Organic acids	Organic acids	Calming effect by blocking specific signals of central nervous system [44].		√			
52	Citraconic acid	Organic acids	Organic acids	Human endogenous metabolite [45].	√				
53	4-Acetamidobutyric acid	Organic acids	Organic acids	Exhibit potential for early diabetic kidney disease diagnosis [46].				√	
54	L-(+)-Tartaric acid	Organic acids	Organic acids	Antihyperglycemic and antidyslipidemic effects [47].				√	
55	SubericAcid	Organic acids	Organic acids	-					√
56	Anchoic acid	Organic acids	Organic acids	-					√
57	6-hydroxy-5,7,4'-trimethoxyflavone	Flavonoids	Flavones	-				√	
58	Tetramethyluteolin (3',4',5,7-Tetramethoxyflavone)	Flavonoids	Flavones	-		√			
59	Kaempferol-3-O- β -D-glucuronide	Flavonoids	Flavonols	Inhibit pro-inflammatory mediators like IL-1 β , NO, PGE2, and LTB4 [48].			√		
60	Tercatain	Phenolic acids	Hydroxybenzoic acids	-	√				
61	benzoylmalic acid	Phenolic acids	Hydroxybenzoic acids	-	√				
62	feruloylmalic acid	Phenolic acids	Hydroxycyclic acids	-					√

63	feruloylsinapoyltartaric acid	Phenolic acids	Hydroxycyclic acids	-					√
64	Galloyl-HHDP(Hexahydroxydiphenoyl)-glucose	Phenolic acids	Hydroxybenzoic acids	-		√			
65	Angelicin	Coumarins	Coumarins	Anti-cancer activity [49]; Antiviral activity [50]; Anti-inflammatory activity [51].				√	
66	2'-Hydroxy,5-methoxy Genistein-O-rhamnosyl-glucoside	Flavonoids	Isoflavones	-				√	
67	Farrerol 7-O-glucoside	Flavonoids	Flavanones	-	√				
68	Eucommia	Others	Others	-					√
69	Luteolin-7-O-β-D-gentiobioside	Flavonoids	Flavones	-					√
70	Vanillic acid glycoside	Phenolic acids	Hydroxybenzoic acids	-					√
71	Kaempferol-3-O-(6''-acetyl)-glucoside	Flavonoids	Flavonols	-				√	
72	Sexangularetin 3-glucoside-7-rhamnoside	Flavonoids	Flavonols	-				√	
73	Limocitrin 7-glucoside	Flavonoids	Flavonols	-			√		
74	Dihydrosedinine	Alkaloids	Alkaloids	-				√	
75	Santamarin	Terpenoids	sesquiterpenes	-				√	
76	Ixerin D	Terpenoids	diterpenes	-	√				
77	Silibinin	Flavonoids	Flavanols	Apoptosis, hepatoprotective, antioxidant, anti-inflammatory and anti-cancer activity[52, 53].				√	
78	Scutellarin(Scutellarein-7-O-glucuronide)	Flavonoids	Flavones	Work against HIV-1IIB, HIV-1(74V) and HIV-1KM018 [54]; Inhibit RANKL-mediated MAPK and NF-κB signaling pathway, including JNK1/2, p38, ERK1/2, and IκBα phosphorylation [55].					√
79	Pratensein 7-O-glucopyranoside	Flavonoids	Flavones	-		√			
80	Diosmetin-7-O-glucuronide	Flavonoids	Flavones	-		√			
81	Patuletin-3-O-β-D-glucopyranoside	Flavonoids	Flavones	Therapeutic potential against oxidative stress-related and inflammatory disorders [56].		√			
82	Luteolin-7-O-rutinoside	Flavonoids	Flavones	Reduce the release of TNF-alpha, IL-6, and IL-1 beta; Inhibit PI3K/AKT/AMPK/NF-kappa B pathway, and reduce oxidative stress [57].					√

83	5,2'-Dihydroxy-7,8-dimethoxyflavone glycosides	Flavonoids	Flavones	-				√	
84	3-O-Digalloyl quinic acid	Phenolic acids	Hydroxybenzoic acids	-			√		
85	Di-O-Glucose-quinic acid	Phenolic acids	HAs	-	√				
86	Gemin D	Phenolic acids	Hydroxybenzoic acids	Antioxidant and antitumoral activities [58].	√				
87	Nobotanin D	Phenolic acids	Hydroxybenzoic acids	Antioxidant and antiglycation activities [59].	√				
88	Cuspinin	Phenolic acids	Hydroxybenzoic acids	-	√				
89	Ailanindole	Alkaloids	Alkaloids	-				√	
90	Ayapin	Coumarins	Coumarins	-					√
91	Tubuloside C	Phenolic acids	Hydroxycyclic acids	-			√		
92	Sinapaldehyde Glucoside	Phenolic acids	Hydroxycyclic acids	-		√			
93	Maplexin C (2,3-Di-O-Galloyl-1,5-Anhydro-D-Glucitol)	Phenolic acids	Hydroxybenzoic acids	Anticancer in vitro and antiproliferative effects [60].	√				
94	2,3-Di-O-Galloyl-D-Glucose	Phenolic acids	Hydroxybenzoic acids	-				√	
95	Methyl 4,6-di-O-galloyl-D-glucoside	Phenolic acids	Hydroxybenzoic acids	-	√				
96	Geniposide	Terpenoids	monoterpenes	Anti-diabetic; Reduces oxidative stress, inflammation and fibrosis [61].				√	
97	Quercetin-3-sambubioside	Flavonoids	Flavonols	-					√
98	Syringic Aldehyde-glucoside	Phenolic acids	Hydroxybenzoic acids	-			√		
99	1'-O-vanilloyl-β-D-glucoside	Phenolic acids	Hydroxybenzoic acids	-				√	
100	3-Prenyl-4-O-β-D-glucopyranosyloxy-4-hydroxyl-benzoic acid	Phenolic acids	Hydroxybenzoic acids	-			√		
101	Quercetin-O-pentosyl-O-rhamnoside-O-glucoside	Flavonoids	Flavonols	-					√
102	dihydrodehydrodiconiferyl alcohol 4-O-β-D-glucopyranosides	Lignans	Lignans	-				√	
103	(-)-secoisolariciresinol 4-O-β-D-glucopyranoside	Lignans	Lignans	-			√		
104	p-Coumaroyleuscaphic acid	Terpenoids	triterpenoids	-			√		
105	3-Indoleacrylic acid	Alkaloids	Alkaloids	-				√	
106	Kaempferol 3-O-β-D-neohesperidoside	Flavonoids	Flavonols	Insulinomimetic effect on the rat soleus muscle [62].			√		
107	Quercetin 3-O-β-D-xylopyranosyl(1→2)-β-D-galactopyranoside	Flavonoids	Flavonols	-					√

108	Corosolic acid	Terpenoids	triterpenoids	Kinase C inhibitor [63]; Anti-angiogenic, anti-lymphangiogenic and anti-cancer effects [64].				√	
109	Luteolin-O-rutinoside-O-rhamnoside	Flavonoids	Flavones	-				√	
110	Methyl neochebulagate	Others	Others	Cytotoxic activities to HL60 cell line [65].	√				
111	1,4-di-O-galloyl-β-D-glucose	Phenolic acids	Hydroxybenzoic acids	-				√	
112	2α-hydroxyursolic acid	Terpenoids	triterpenoids	Induce non-apoptotic cell death in cancer cells [66].					√
113	5,7,3',4',5'-pentahydroxydihydroflavone	Flavonoids	Flavanones	-	√				
114	Myricetin-O-rhamnoside	Flavonoids	Flavonols	DPPH free radical scavenging activity [67].					√
115	7S,8R-threo-3',9,9'-trihydroxy-3-methoxy-4',7-epoxy-neolignan-4-O-α-L-rhamnopyranoside	Lignans	Lignans	-		√			
116	monogalloyl-diglucose	Phenolic acids	Hydroxybenzoic acids	-	√				
117	Caffeoyl feruloyl shikimic acid	Phenolic acids	Hydroxycyclic acids	-					√
118	Scopoletin-Beta-D-Glucuronide	Coumarins	Coumarins	-			√		
119	Galangin-7-glucoside	Flavonoids	Flavones	-				√	
120	Luteolin-O-glucuronate-O-rhamnoside	Flavonoids	Flavones	-				√	
121	Dunalianoside C	Phenolic acids	Hydroxycyclic acids	-					√
122	5,7,8,4'-Tetramethoxyflavone	Flavonoids	Flavones	-	√				
123	Luteolin 7-O-neohesperidoside(Lonicerin)	Flavonoids	Flavones	Prevent inflammation [68]; Apoptosis in LPS-induced acute lung injury [69].				√	
124	Isolariciresinol 9'-O-Glucoside	Lignans	Lignans	-					√
125	5'-methoxyisolariciresinol-9'-O-β-D-xylopyranoside	Lignans	Lignans	-	√				

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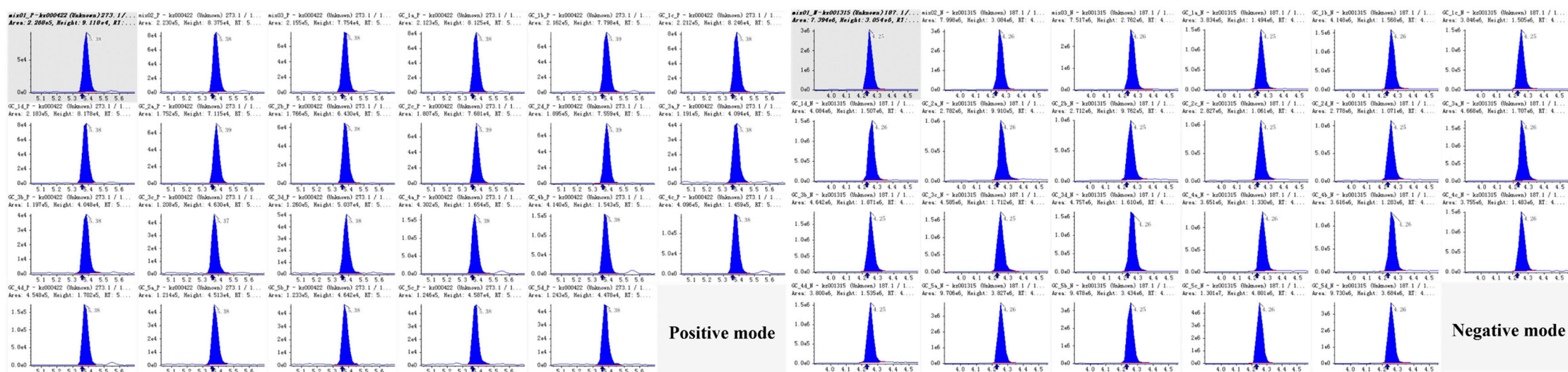
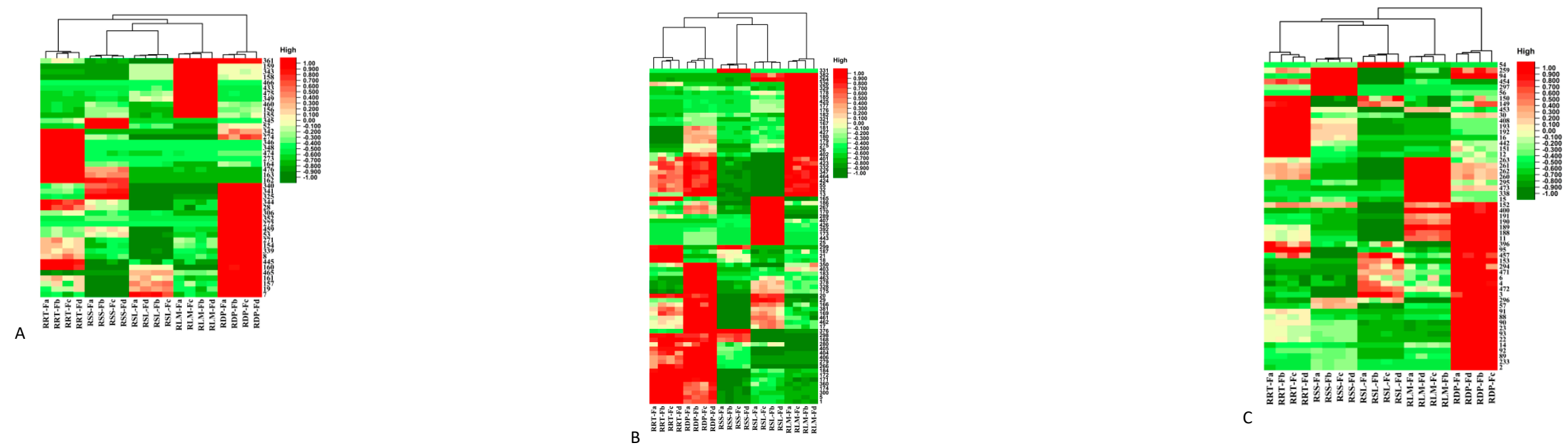


Figure S1. Integrated correction chart for metabolite quantitative analysis.



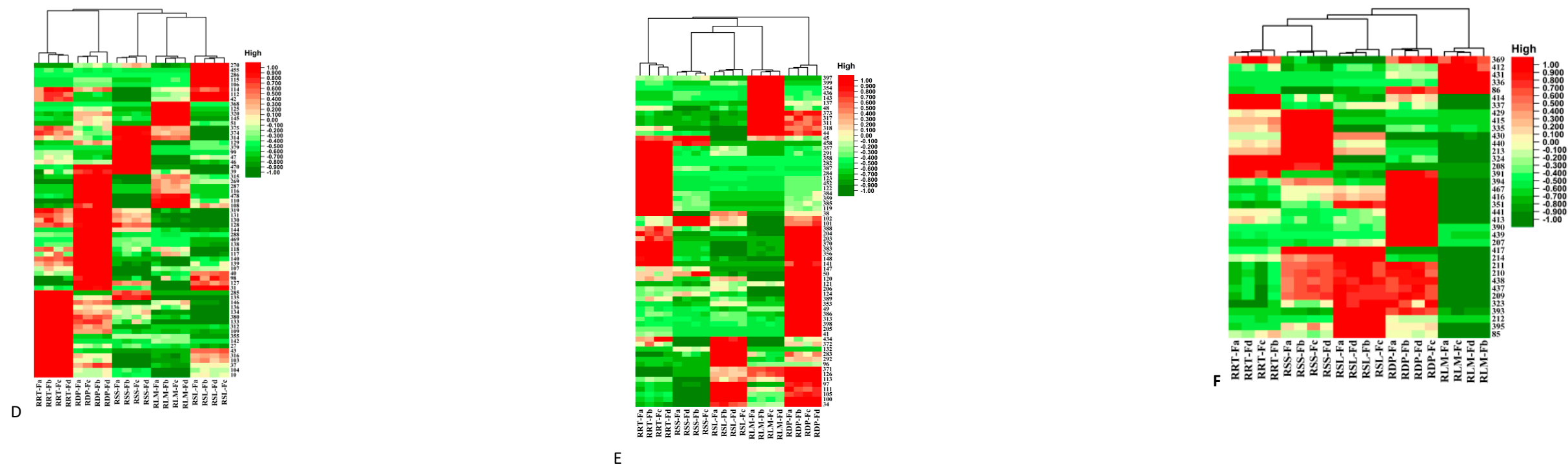
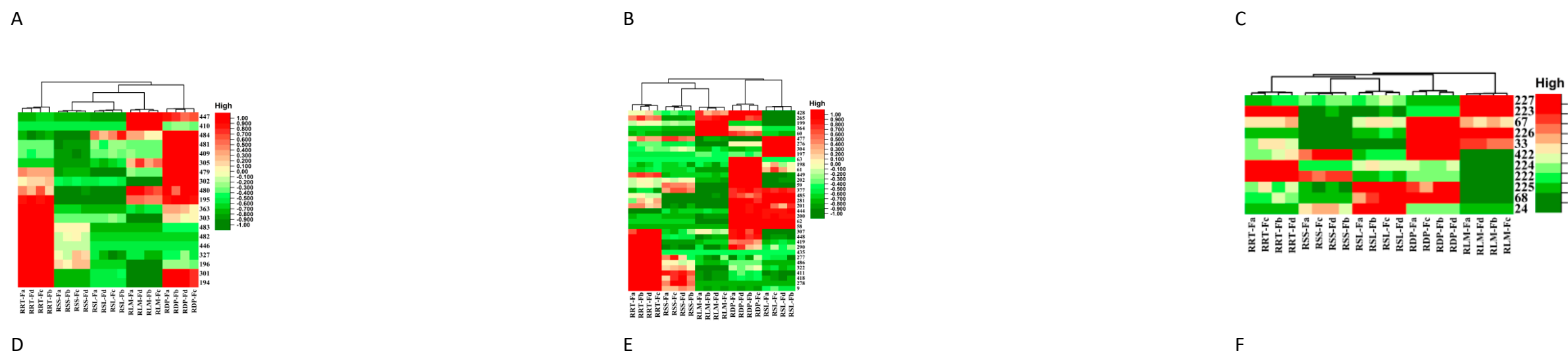


Figure S2. Heatmap of the relative contents of the differential metabolites of **(A)** flavones; **(B)** flavonols; **(C)** flavanones, isoflavones, anthocyanins, flavanones, proanthocyanidins and chalcones; **(D)** hydroxycyclic acid derivatives (HCs) and others phenolic acids (HAs); **(E)** hydroxybenzoic acid derivatives (HBs); **(F)** terpenoids. The numbers represent the compounds in **Supplementary Table S4**.



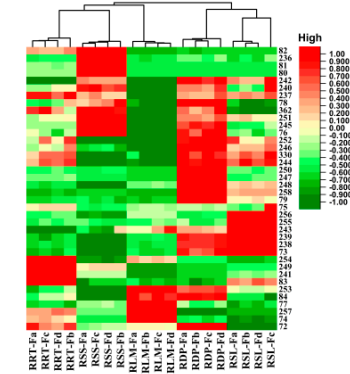
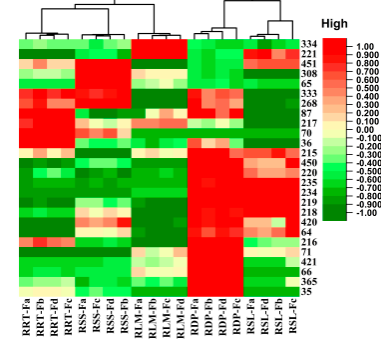
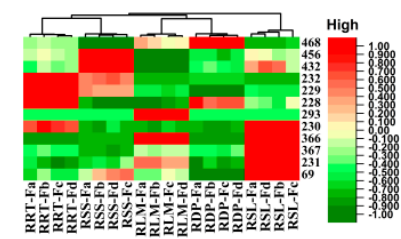


Figure S3. Heat map analysis of **(A)** lignans; **(B)** others; **(C)** vitamins; **(D)** coumarins; **(E)** alkaloids; **(F)** organic acids. The numbers represent the compounds in **Supplementary Table S4**.