

Review

Non-Alkaloid Cholinesterase Inhibitory Compounds from Natural Sources

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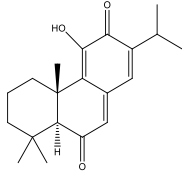
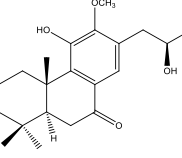
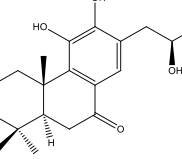
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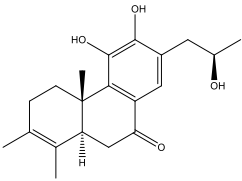
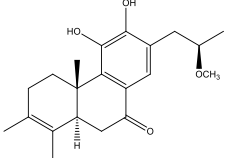
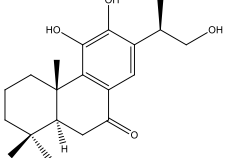
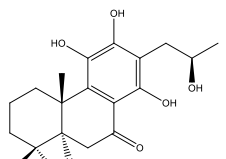
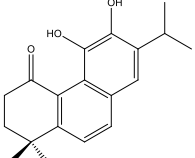
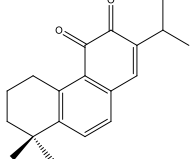
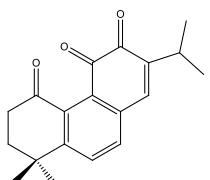
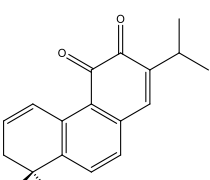
⁵ Dunarea de Jos University, Faculty of Sciences and Environment, Department of Chemistry, Physics and Environment, 47 Domneasca Str., 800008, Galati, Romania; rodica.dinica@ugal.ro

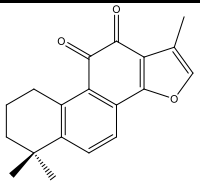
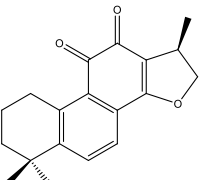
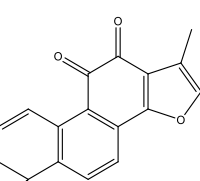
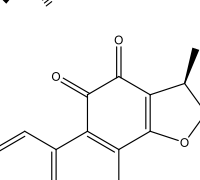
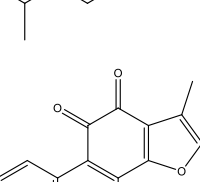
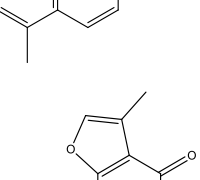
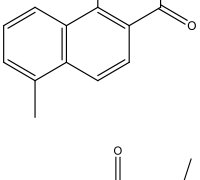
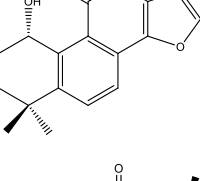
* Correspondence: macntamfu@yahoo.co.uk (A.N.T.); rodica.dinica@ugal.ro (R.M.D.); Tel.: +237-675590353 (A.N.T.); +33-6130-251 (R.M.D.)

Supplementary Material

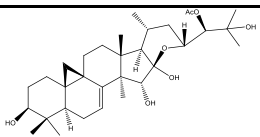
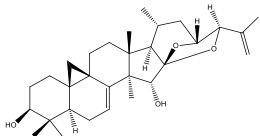
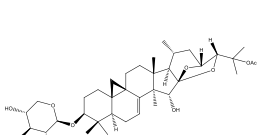
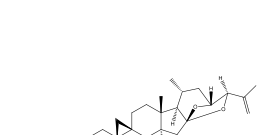
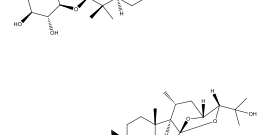
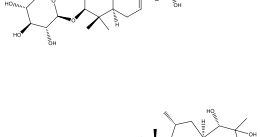
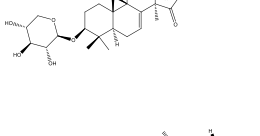
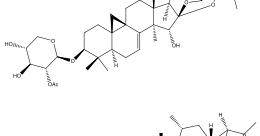
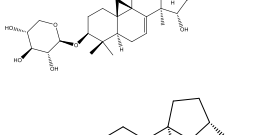
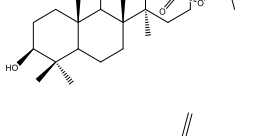
Table S1: Terpenoids as Acetyl and Butyryl cholinesterase inhibitors

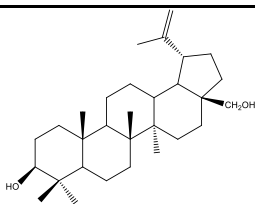
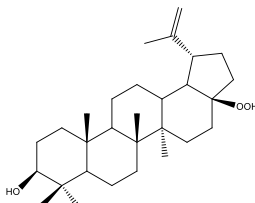
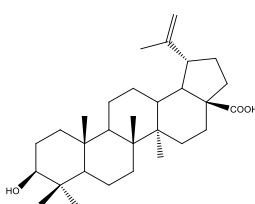
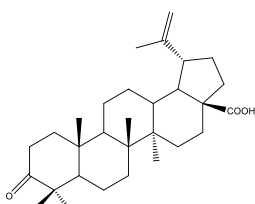
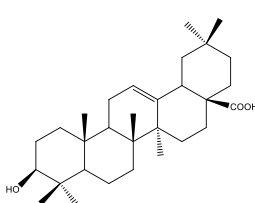
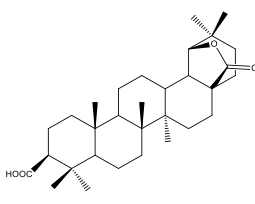
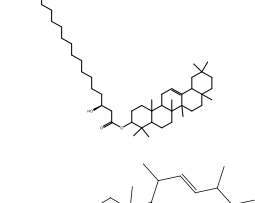
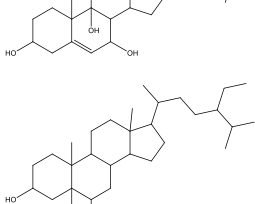

No	Name	Structure	Plant source	IC ₅₀ or %inh (conc.)		Reference
				AChE	BuChE	
1.	Taxodione		<i>Salvia austriaca</i>	54.84 µg/mL (IC ₅₀)	195.9 µg/mL (IC ₅₀)	[14]
2.	(5S,10S,16R)-11,16-dihydroxy-12-methoxy-17(15→16)-abeoabieta-8,11,13-trien-7-one		<i>Caryopteris mongolica</i>	27.9 ± 5.2 µM (IC ₅₀)	73.8 ± 1.7 µM (IC ₅₀)	[15]
3.	(5S,10S,16R)-11,12,16-trihydroxy-17(15→16)-abeoabieta-8,11,13-trien-7-one		<i>Caryopteris mongolica</i>	64.6 ± 5.9 µM (IC ₅₀)	>100 µM (IC ₅₀)	[15]

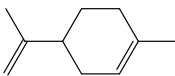
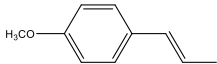
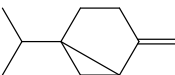
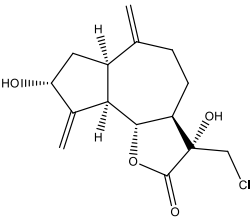
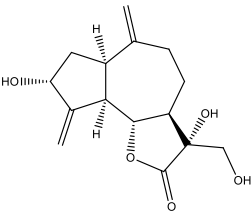
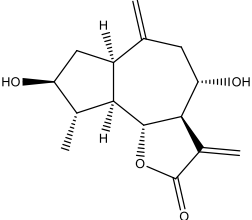
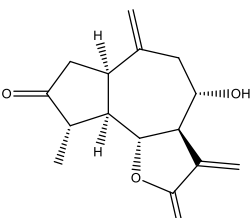
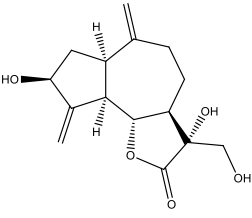
4.	(5S,10S,16R)-11,12,16-trihydroxy-17(15→16),18(4→3)-diabeo-abieta-3,8,11,13-tetraen-7-one		<i>Caryopteris mongolica</i>	$38.4 \pm 10.8 \mu\text{M}$ (IC ₅₀)	$98.4 \pm 1.1 \mu\text{M}$ (IC ₅₀)	[15]
5.	(5S,10S,16R)-11,12-dihydroxy-16-methoxy-17(15→16),18(4→3)-diabeo-abieta-3,8,11,13-tetraen-7-one		<i>Caryopteris mongolica</i>	$20.8 \pm 7.1 \mu\text{M}$ (IC ₅₀)	$>100 \mu\text{M}$ (IC ₅₀)	[15]
6.	(15R)-cyrtophyllone B		<i>Caryopteris mongolica</i>	$55.7 \pm 7.4 \mu\text{M}$ (IC ₅₀)	$93.2 \pm 6.2 \mu\text{M}$ (IC ₅₀)	[15]
7.	Incanone		<i>Caryopteris mongolica</i>	$87.5 \pm 12.3 \mu\text{M}$ (IC ₅₀)	$>100 \mu\text{M}$ (IC ₅₀)	[15]
8.	Arucadiol		<i>Perovskia atriplicifolia</i>	-	$91.97 \pm 0.08\%$ (10 $\mu\text{g/mL}$)	[16]
9.	Miltirone		<i>Perovskia atriplicifolia</i>	-	$98.36 \pm 0.89\%$ (10 $\mu\text{g/mL}$)	[16]
10.	1-Oxomiltirone		<i>Perovskia atriplicifolia</i>	$11.08 \pm 0.38\%$ (10 $\mu\text{g/mL}$)	$77.45 \pm 1.97\%$ (10 $\mu\text{g/mL}$)	[16]
11.	1,2-Didehydromiltirone		<i>Perovskia atriplicifolia</i>	$10.08 \pm 2.22\%$ (10 $\mu\text{g/mL}$)	$97.36 \pm 2.78\%$ (10 $\mu\text{g/mL}$)	[16]

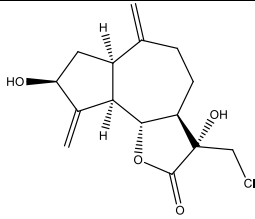
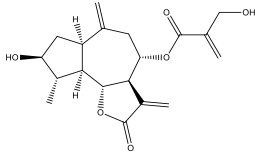
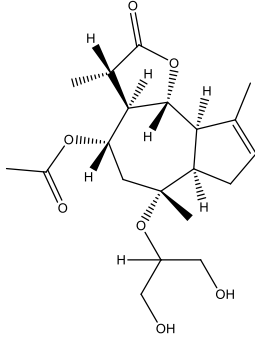
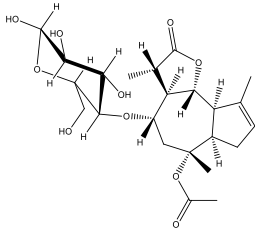
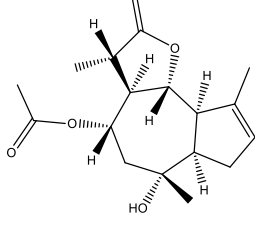
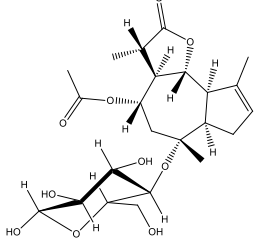
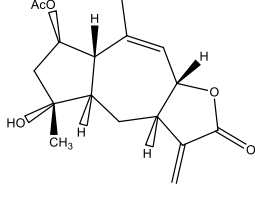
12.	Tanshinone IIa		<i>Salvia glutinosa</i>	45.16 ± 5.49 % (10 µg/mL)	97.41 ± 0.23 % (10 µg/mL)	[16]
13.	Cryptotanshinone		<i>Perovskia atriplicifolia</i>	28.95 ± 1.74 % (10 µg/mL)	74.37 ± 3.57% (10 µg/mL)	[16]
14.	1,2-Didehydro- tanshinone IIa		<i>Perovskia atriplicifolia</i>	41.88 ± 2.05 % (10 µg/mL)	67.65 ± 1.88 % (10 µg/mL)	[16]
15.	15,16-Dihydro- tanshinone		<i>Salvia glutinosa</i>	65.17 ± 1.39 % (10 µg/mL)	94.88 ± 1.88 % (10 µg/mL)	[16]
16.	Tanshinone I		<i>Salvia glutinosa</i>	6.19 ± 3.91 % (10 µg/mL)	85.84 ± 4.15 % (10 µg/mL)	[16]
17.	Isotanshinone II		<i>Salvia glutinosa</i>	5.55 ± 3.03 % (10 µg/mL)	77.81 ± 1.45 % (10 µg/mL)	[16]
18.	1(S)-OH-Tanshinone IIa		<i>Salvia glutinosa</i>	36.32 ± 1.85 % (10 µg/mL)	64.50 ± 1.50 % (10 µg/mL)	[16]
19.	1β-OH-Crypto- tanshinone		<i>Perovskia atriplicifolia</i>	17.70 ± 3.86 % (10 µg/mL)	93.15 ± 2.31 % (10 µg/mL)	[16]

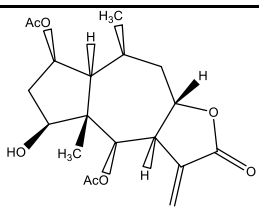
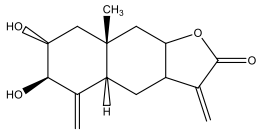
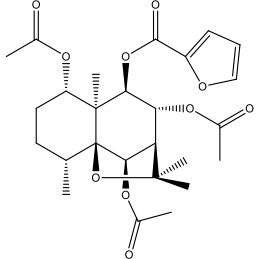
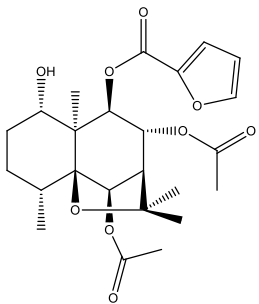
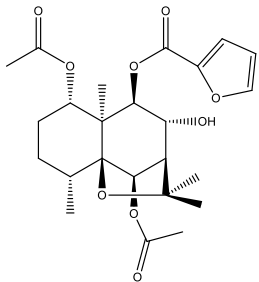
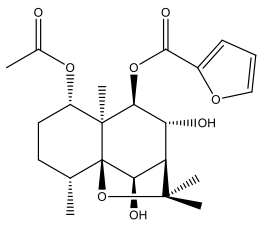
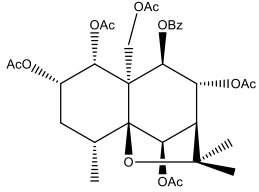
20.	Nuciferoside		<i>Nelumbo nucifera</i>	3.20±0.22 μ M (IC ₅₀)	83.06±0.80 μ M (IC ₅₀)	[17]
21.	cycloartenol		<i>Nelumbo nucifera</i>	11.89±1.91 μ M (IC ₅₀)	13.93±1.65 μ M (IC ₅₀)	[17]
22.	7,8-didehydrocimi- genol		<i>Cimicifuga dahu- rica</i>	43.1 ± 5.6 % (100 μ M)	53.6 ± 0.9 % (100 μ M)	[18]
23.	24-epi-24-O-acetyl- 7,8-didehydrosheng- manol		<i>Cimicifuga dahu- rica</i>	53.7 ± 1.6 % (100 μ M)	57.3 ± 0.3 % (100 μ M)	[18]
24.	25-triepoxy-12 β -ace- toxy-3 β ,26-dihy- droxy-9,19-cy- clolanost-7- ene		<i>Cimicifuga dahu- rica</i>	52.0 ± 0.1 % (100 μ M)	41.0 ± 0.1 % (100 μ M)	[18]
25.	25-O-acetyl-7,8-dide- hydrocimigenol		<i>Cimicifuga dahu- rica</i>	55.4 ± 2.6 % (100 μ M)	18.0 ± 0.4 % (100 μ M)	[18]
26.	25-anhydro-7,8- didehydrocimigenol		<i>Cimicifuga dahu- rica</i>	48.6 ± 0.6 % (100 μ M)	51.0 ± 1.9 % (100 μ M)	[18]
27.	24-epi-7,8-didehydro- cimigenol		<i>Cimicifuga dahu- rica</i>	31.8 ± 0.5 % (100 μ M)	41.1 ± 2.2 % (100 μ M)	[18]
28.	25-O-acetylcimigenol		<i>Cimicifuga dahu- rica</i>	15.8 ± 4.3 % (100 μ M)	14.0 ± 2.6 % (100 μ M)	[18]

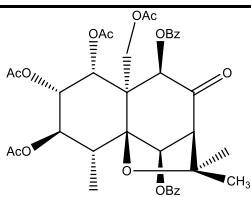
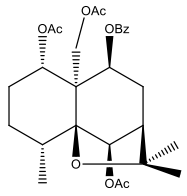
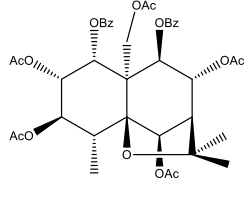
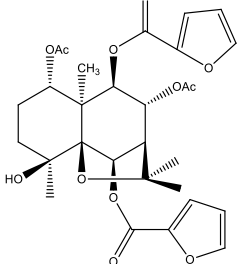
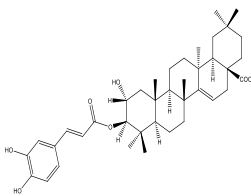
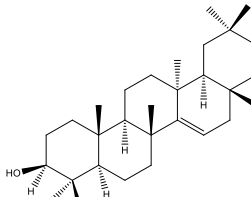
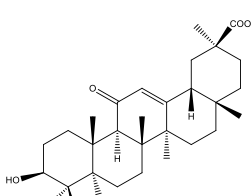
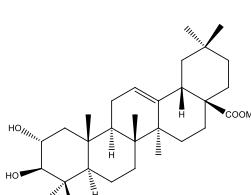
29.	24-epi-24-O-acetyl-7,8-didehydroshengmanol		<i>Cimicifuga dahurica</i>	28.0 ± 4.0 % (100 µM)	18.6 ± 0.3 % (100 µM)	[18]
30.	25-anhydrocimigenol		<i>Cimicifuga dahurica</i>	42.8 ± 0.8 % (100 µM)	44.9 ± 1.1 % (100 µM)	[18]
31.	25-O-acetyl-7,8-didehydrocimigenol-3-O-β-D-xylopyranoside		<i>Cimicifuga dahurica</i>	24.9 ± 6.2 % (100 µM)	55.0 ± 0.7 % (100 µM)	[18]
32.	25-anhydrocimigenol-3-O-β-D-xylopyranoside		<i>Cimicifuga dahurica</i>	37.1 ± 0.5 % (100 µM)	60.7 ± 0.6 % (100 µM)	[18]
33.	24-epi-7,8-didehydrocimigenol-3-O-β-D-xylopyranoside		<i>Cimicifuga dahurica</i>	19.0 ± 2.5 % (100 µM)	62.0 ± 0.8 % (100 µM)	[18]
34.	3-O-β-D-xylopyranosyl-24S,25-dihydroxy-15-oxo-acta-(16R,23R)-16,23-monooxoside		<i>Cimicifuga dahurica</i>	47.1 ± 1.6 % (100 µM)	55.4 ± 0.8 % (100 µM)	[18]
35.	Cimiricaside A		<i>Cimicifuga dahurica</i>	23.1 ± 6.8 % (100 µM)	54.4 ± 1.3 % (100 µM)	[18]
36.	7,8-didehydro-25-anhydrocimigenol-3-O-β-D-xylopyranoside		<i>Cimicifuga dahurica</i>	21.5 ± 1.7 % (100 µM)	38.5 ± 0.1 % (100 µM)	[18]
37.	(3β)-hopan-3-ol-28,22-olide		<i>Xylia xylocarpa</i>	79.5 ± 1.1 µM (IC ₅₀)	>100 µM (IC ₅₀)	[19]
38.	lupeol		<i>Xylia xylocarpa</i>	75.7 ± 3.1 µM (IC ₅₀)	>100 µM (IC ₅₀)	[19]

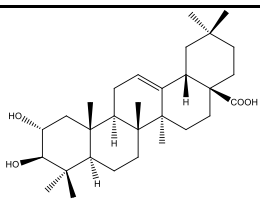
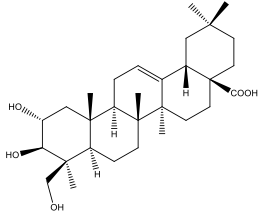
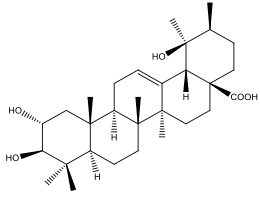
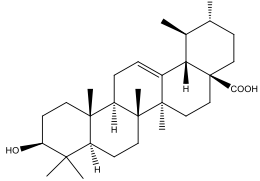
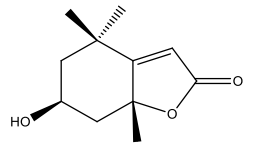
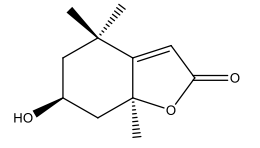
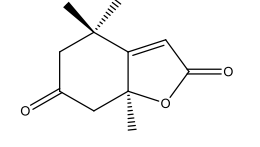
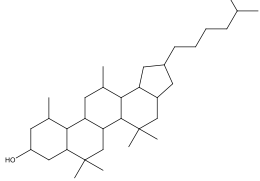
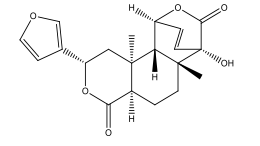
39.	betulin		<i>Xylia xylocarpa</i>	93.4 ± 2.2 µM (IC ₅₀)	–	[19]
			<i>Garcinia hombro-niana</i>	28.5 ± 0.78 (IC ₅₀)	–	[20]
40.	28-norlup-20(29)-ene-3β-hydroxy-17β-hydroperoxide		<i>Xylia xylocarpa</i>	83.9 ± 0.6 µM (IC ₅₀)	>100 µM (IC ₅₀)	[19]
41.	Betulinic acid		<i>Xylia xylocarpa</i>	62.0 ± 2.2 µM (IC ₅₀)	–	[19]
			<i>Garcinia hombro-niana</i>	24.2 ± 0.99 µM (IC ₅₀)	19.1 ± 1.33 µM (IC ₅₀)	[20]
42.	betulonic acid		<i>Xylia xylocarpa</i>	94.6 ± 1.5 µM (IC ₅₀)	>100 µM (IC ₅₀)	[19]
43.	oleanolic acid		<i>Xylia xylocarpa</i>	84.9 ± 1.2 µM (IC ₅₀)	>100 µM (IC ₅₀)	[19]
44.	3β-formyloxy-18α-oleanano-28,19β-lactone		<i>Xylia xylocarpa</i>	86.5 ± 0.6 µM (IC ₅₀)	>100 µM (IC ₅₀)	[19]
45.	oleanane 3-(3'R-hydroxy)-hexadecanoate		<i>Rhynchospora co-rymbosa</i>	–	66.49 ± 0.12 µM (IC ₅₀)	[21]
46.	dendrotriol		<i>Rhynchospora co-rymbosa</i>	–	43.43 ± 0.47 µM (IC ₅₀)	[21]
47.	(24R)-24-ethyl-5α-cholestane-3β,5,6β-triol		<i>Rhynchospora co-rymbosa</i>	–	79.44 ± 0.16 µM (IC ₅₀)	[21]

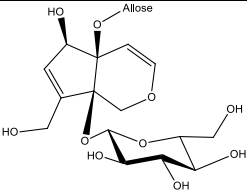
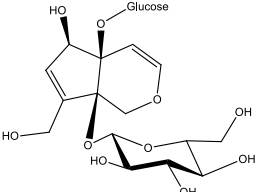
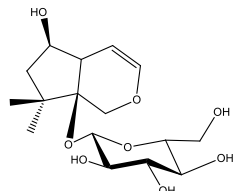
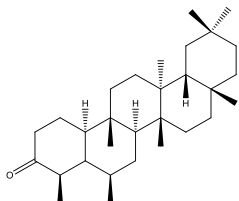
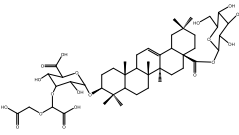
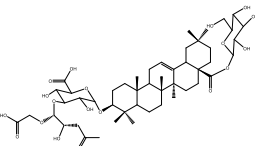
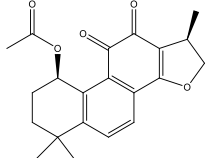
48.	(+)-Limonene		<i>Pimpinella anisoides</i>	225.9 ± 1.3 μg/mL (IC ₅₀)	456.2 ± 5.6 μg/mL (IC ₅₀)	[22]
49.	trans-Anethole		<i>Pimpinella anisoides</i>	134.7 ± 2.1 μg/mL (IC ₅₀)	209.6 ± 2.4 μg/mL (IC ₅₀)	[22]
50.	(+)-Sabinene		<i>Pimpinella anisoides</i>	176.5 ± 2.8 μg/mL (IC ₅₀)	218.6 ± 3.5 μg/mL (IC ₅₀)	[22]
51.	Cornigeraline		<i>Cynara cornigera</i>	20.5 μM (IC ₅₀)	-	[23]
52.	Solstitalin		<i>Cynara cornigera</i>	35.8 μM (IC ₅₀)	-	[23]
53.	3-hydroxy-grosheimin		<i>Cynara cornigera</i>	30.5 μM (IC ₅₀)	-	[23]
54.	grosheimin		<i>Cynara cornigera</i>	61.8 μM (IC ₅₀)	-	[23]
55.	solstitalin A		<i>Cynara cornigera</i>	25.7 μM (IC ₅₀)	-	[23]

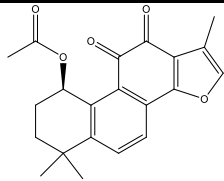
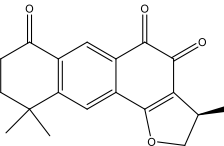
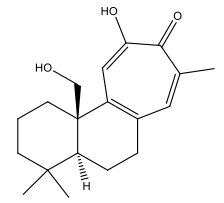
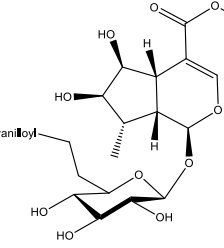
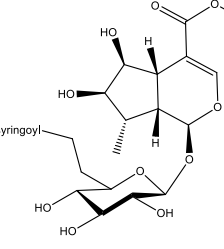
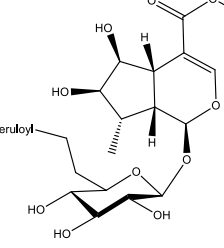
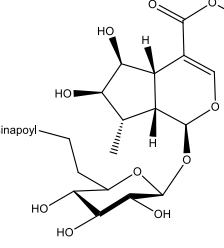
56.	13-chlorosolstitialine		<i>Cynara cornigera</i>	62.1 μ M (IC ₅₀)	-	[23]
57.	cyanaropicrin		<i>Cynara cornigera</i>	31.3 μ M (IC ₅₀)	-	[23]
58.	Amberbin C		<i>Amberboa ramosa</i>	1.1 \pm 0.08 μ M (IC ₅₀)	17.9 \pm 0.05 μ M (IC ₅₀)	[24]
59.	Amberin		<i>Amberboa ramosa</i>	17.5 \pm 0.01 μ M (IC ₅₀)	2.7 \pm 0.02 μ M (IC ₅₀)	[24]
60.	Amberbin A		<i>Amberboa ramosa</i>	8.6 \pm 0.15 μ M (IC ₅₀)	4.8 \pm 0.15 μ M (IC ₅₀)	[24]
61.	Amberbin B		<i>Amberboa ramosa</i>	0.91 \pm 0.015 μ M (IC ₅₀)	2.5 \pm 0.15 μ M (IC ₅₀)	[24]
62.	gaillardin		<i>Inula spp</i>	67 % (300 μ g/mL)	-	[25]

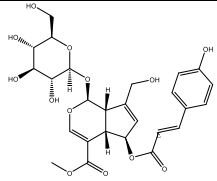
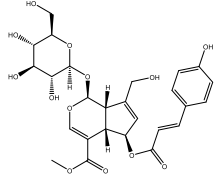
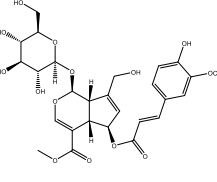
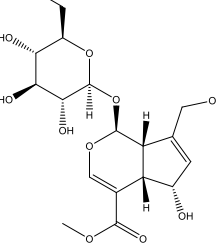
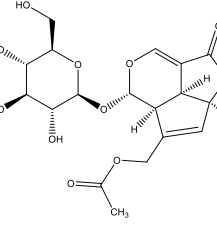
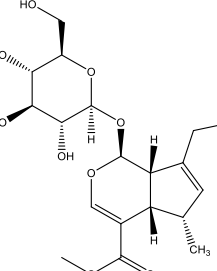
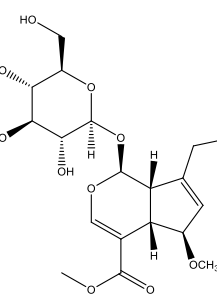
63.	britannin		<i>Inula spp</i>	25.2 % (300 μ g/mL)	-	[25]
64.	Pulchellin C		<i>Inula spp</i>	10.9 % (300 μ g/mL)	-	[25]
65.	1 α ,6 β ,8 α -Triacetox-9 β -furoyloxy- β -agarofuran		<i>Maytenus disticha</i>	0.098 \pm 0.012 mg/mL (IC ₅₀)	>0.500 mg/mL (IC ₅₀)	[26]
66.	1 α -Hydroxy-6 β ,8 α -diacetox-9 β -furoyloxy- β -agarofuran		<i>Maytenus disticha</i>	0.341 \pm 0.016 mg/mL (IC ₅₀)	>0.500 mg/mL (IC ₅₀)	[26]
67.	1 α ,6 β -Diacetox-8 α -hydroxy-9 β -furoyloxy- β -agarofuran		<i>Maytenus disticha</i>	0.102 \pm 0.004 mg/mL (IC ₅₀)	>0.500 mg/mL (IC ₅₀)	[26]
68.	1 α -Acetox-6 β ,8 α -dihydroxy-9 β -furoyloxy- β -agarofuran		<i>Maytenus disticha</i>	0.097 \pm 0.006 mg/mL (IC ₅₀)	>0.500 mg/mL (IC ₅₀)	[26]
69.	1 α ,2 α ,6 β ,8 α ,15-Pentaacetox-9 β -benzoyloxy- β -agarofuran		<i>Euonymus japonicus</i>	0.070 \pm 0.002 mg/mL (IC ₅₀)	>0.500 mg/mL (IC ₅₀)	[26]

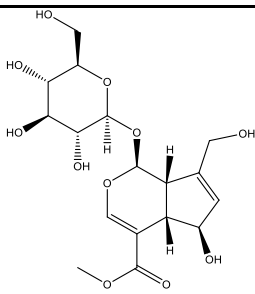
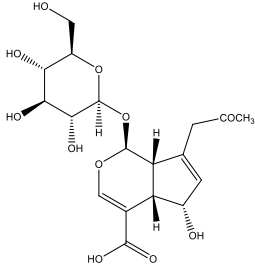
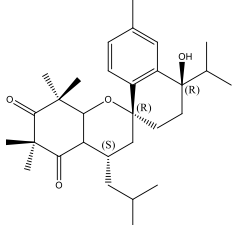
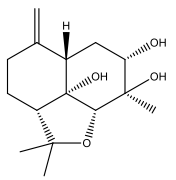
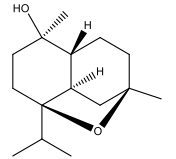
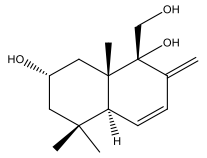
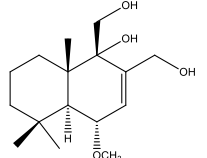
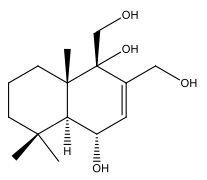
70.	1 α ,2 α ,3 β ,15-Tetraacetoxy-6 β ,9 β -dibenzoyl-8-oxo- β -agarofuran		<i>Maytenus disticha</i>	0.299 ± 0.015 mg/mL (IC ₅₀)	>0.500 mg/mL (IC ₅₀)	[26]
71.	1 α ,6 β ,15-Triacetoxo-9-benzoyloxy- β -agarofuran		<i>Euonymus japonicus</i>	0.359 ± 0.006 mg/mL (IC ₅₀)	>0.500 mg/mL (IC ₅₀)	[26]
72.	2 α ,3 β ,6 β ,8 α ,15-Pentaacetoxo-1 α ,9 β -benzoyloxy- β -agarofuran		<i>Euonymus japonicus</i>	0.363 ± 0.009 mg/mL (IC ₅₀)	>0.500 mg/mL (IC ₅₀)	[26]
73.	1 α -Acetoxo-6 β ,9 β -difuroyloxy-4 β -hydroxy- β -agarofuran		<i>Maytenus disticha</i>	0.381 ± 0.007 mg/mL (IC ₅₀)	>0.500 mg/mL (IC ₅₀)	[26]
74.	2 β -Hydroxy-3 α -O-caffeoyltaraxar-14-en-28-oic acid		<i>Garcinia hombro-niana</i>	13.5 ± 0.95 μ M (IC ₅₀)	10.6 ± 0.54 μ M (IC ₅₀)	[20]
75.	taraxerol		<i>Garcinia hombro-niana</i>	-	17.8 ± 1.73 μ M (IC ₅₀)	[20]
76.	Glycyrrhetic acid		<i>Perovskia atriplic-ifolia</i>	54.53 ± 0.05 μ M (IC ₅₀)	34.52 ± 0.04 μ M (IC ₅₀)	[27]
77.	2 α ,3 β -Dihydroxyolean-12-en-28-methyl ester		<i>Perovskia atriplic-ifolia</i>	46.51 ± 0.05 μ M (IC ₅₀)	28.06 ± 0.06 μ M (IC ₅₀)	[27]

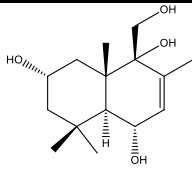
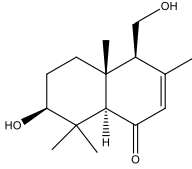
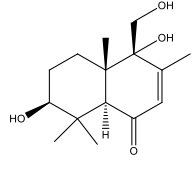
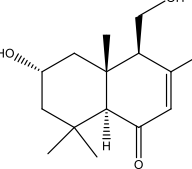
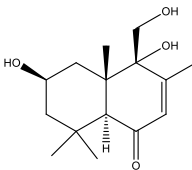
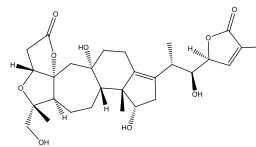
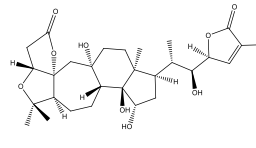
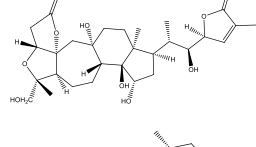
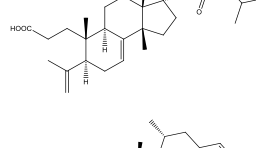
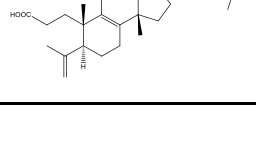
78.	2 α ,3 β -Dihydroxyolean-12-en-28-oic acid		<i>Perovskia atriplicifolia</i>	33.50 ± 0.05 μ M (IC ₅₀)	19.04 ± 0.05 μ M (IC ₅₀)	[27]
79.	2 α ,3 β ,24-Trihydroxyolean-12-en-28-oic acid		<i>Perovskia atriplicifolia</i>	24.57 ± 0.05 μ M (IC ₅₀)	9.50 ± 0.03 μ M (IC ₅₀)	[27]
80.	2 α ,3 β ,19 β -Trihydroxyurs-12-en-28-oic acid		<i>Perovskia atriplicifolia</i>	29.54 ± 0.05 μ M (IC ₅₀)	13.52 ± 0.03 μ M (IC ₅₀)	[27]
81.	ursolic acid		<i>Calceolaria talcana</i>	-	168.1 μ g/mL (IC ₅₀)	[28]
82.	Lololide		<i>Portulaca oleracea</i>	75.67 ± 0.37 μ M (IC ₅₀)	-	[29]
83.	Isolololide		<i>Portulaca oleracea</i>	76.41 ± 0.23 μ M (IC ₅₀)	-	[29]
84.	Dehydrolololide		<i>Portulaca oleracea</i>	78.74 ± 0.36 μ M (IC ₅₀)	-	[29]
85.	5,5,7,7,11,13-hexamethyl-2-(5-methylhexyl)icosahydro-1H-cyclopenta[a]chrysen-9-ol		<i>Grewia optiva</i>	90 μ g/mL (IC ₅₀)	90 μ g/mL (IC ₅₀)	[30]
86.	Columbin		<i>Tinospora cordifolia</i>	1.2993 ± 0.17 mg/mL (IC ₅₀)	-	[31]

87.	5-allosyloxy-aucubine		<i>Sideritis germani-copolitana</i>	20.36±0.70% (250 µg/mL)	14.22±0.61 % (250 µg/mL)	[32]
88.	Melittoside		<i>Sideritis germani-copolitana</i>	24.63±0.44% (250 µg/mL)	12.75±0.40 % (250 µg/mL)	[32]
89.	Ajugol		<i>Sideritis germani-copolitana</i>	21.29±0.48% (250 µg/mL)	10.51±0.32 % (250 µg/mL)	[32]
90.	Friedeline		<i>Celtis adolphi-friderici</i>	-	62.3±0.21 µM (IC ₅₀)	[33]
91.	3-O-[2'-(2''-O-glycolyl)-glyoxylyl-β-D-glucuronopyranosyl]-28-O-β-D-glucopyranosyl-olean-12-en-3β-ol-28-oic acid		<i>Bassia indica</i>	63.1±1.5 µg/mL (IC ₅₀)	-	[34]
92.	(2'R,3'S)-3-O-[2'-hydroxy-3'-(2''-O-glycolyl)-oxo-propionic acid-β-D-glucuronopyranosyl]-28-O-β-D-glucopyranosyl-olean-12-en-3β-ol-28-oic acid		<i>Bassia indica</i>	29.6±1.7 µg/mL (IC ₅₀)	-	[34]
93.	(1R,15R)-1-Acetoxycryptotanshinone		<i>Perovskia atriplicifolia</i>	22.8±2.4% (10 µg/mL)	0.84±0.09 µg/mL (IC ₅₀)	[35]

94.	(1R)-1-Acetoxy-tanshinone IIA		<i>Perovskia atriplicifolia</i>	28.0±0.9% (10 µg/mL)	2.77±0.48 µg/mL (IC ₅₀)	[35]
95.	(15R)-1-oxoaegyptinone A		<i>Perovskia atriplicifolia</i>	49.6±1.8% (10 µg/mL)	15.75±1.12 µg/mL (IC ₅₀)	[35]
96.	Isograndifoliol		<i>Perovskia atriplicifolia</i>	50.0±1.8% (10 µg/mL)	0.27±0.02 µg/mL (IC ₅₀)	[35]
97.	Tunisposin A		<i>Citharexylum spinosum</i>	-	30.79±1.21 µM (IC ₅₀)	[36]
98.	Tunisposin B		<i>Citharexylum spinosum</i>	-	17.19±1.02 µM (IC ₅₀)	[36]
99.	Tunisposin C		<i>Citharexylum spinosum</i>	-	52.24±2.50 µM (IC ₅₀)	[36]
100.	Tunisposin D		<i>Citharexylum spinosum</i>	-	35.89±1.17 µM (IC ₅₀)	[36]

101.	<i>E</i> -6-O- <i>p</i> -coumaroyl scandoside methyl ester		<i>Hedyotis diffusa</i>	304.18±12.15 μM (IC ₅₀)	98.96±2.74 μM (IC ₅₀)	[37]
102.	6-O- <i>p</i> -coumaroyl scandoside methyl ester		<i>Hedyotis diffusa</i>	297.84±22.68 μM (IC ₅₀)	26.22±1.76 μM (IC ₅₀)	[37]
103.	<i>E</i> -6-O-feruloyl scandoside methyl ester		<i>Hedyotis diffusa</i>	96.84±5.29 μM (IC ₅₀)	116.09±29.3 9 μM (IC ₅₀)	[37]
104.	Deacetylasperulosidic acid methyl ester		<i>Hedyotis diffusa</i>	172.26±20.55 μM (IC ₅₀)	17.59±0.78 μM (IC ₅₀)	[37]
105.	Asperuloside		<i>Hedyotis diffusa</i>	258.81±7.48 μM (IC ₅₀)	>500 μM (IC ₅₀)	[37]
106.	6-O-Methyldeacetylasperulosidic acid methyl ester		<i>Hedyotis diffusa</i>	81.06±5.58 μM (IC ₅₀)	32.24±2.80 μM (IC ₅₀)	[37]
107.	6-O-Methylscandoside methyl ester		<i>Hedyotis diffusa</i>	-	11.59±0.68 μM (IC ₅₀)	[37]

108.	scandoside methyl ester		<i>Hedyotis diffusa</i>	157.68±13.18 μM (IC ₅₀)	16.18±2.05 μM (IC ₅₀)	[37]
109.	asperulosidic acid		<i>Hedyotis diffusa</i>	68.34±5.11 μM (IC ₅₀)	80.29±19.76 μM (IC ₅₀)	[37]
110.	Rhotomentodione D		<i>Rhodomyrtus tomentosa</i>	22.9±1.1 μM (IC ₅₀)	-	[38]
111.	Paecilacadinol A		<i>Paecilomyces sp.</i> TE-540	27.05±3.21% (40 μM)	-	[39]
112.	Paecilacadinol B		<i>Paecilomyces sp.</i> TE-540	34.23±1.15% (40 μM)	-	[39]
113.	Ustusol D		<i>Paecilomyces sp.</i> TE-540	27.29±2.07% (40 μM)	-	[39]
114.	Ustusol E		<i>Paecilomyces sp.</i> TE-540	41.35±0.65% (40 μM)	-	[39]
115.	12-hydroxyalbrassitriol		<i>Paecilomyces sp.</i> TE-540.	43.02±6.01 μM (IC ₅₀)	-	[39]

116.	2-hydroxyalbrassitriol		<i>Paecilomyces sp.</i> TE-540	35.97±2.12 µM (IC ₅₀)	-	[39]
117.	Deoxyuvidin B		<i>Paecilomyces sp.</i> TE-540	19.23±1.89% (40 µM)	-	[39]
118.	3β,9α,11-trihydroxy-6-oxodrim-7-ene		<i>Paecilomyces sp.</i> TE-540	33.04±4.30% (40 µM)	-	[39]
119.	2α,11-dihydroxy-6-oxodrim-7-ene		<i>Paecilomyces sp.</i> TE-540sp.	17.56±3.33% (40 µM)	-	[39]
120.	Ustusol B		<i>Paecilomyces sp.</i> TE-540	24.24±1.35% (40 µM)	-	[39]
121.	kadcocclactone S		<i>Kadsura coccinea</i>	85.91±1.90 µM (IC ₅₀)	-	[40]
122.	micrandilactone C		<i>Kadsura coccinea</i>	97.90±1.50 µM (IC ₅₀)	-	[40]
123.	micrandiactone H		<i>Kadsura coccinea</i>	86.99±1.04 µM (IC ₅₀)	-	[40]
124.	seco-coccinic acid A		<i>Kadsura coccinea</i>	91.14±2.73 µM (IC ₅₀)	-	[40]
125.	seco-coccinic acid G		<i>Kadsura coccinea</i>	73.16±1.78 µM (IC ₅₀)	-	[40]

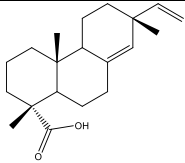
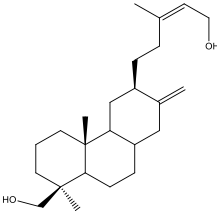
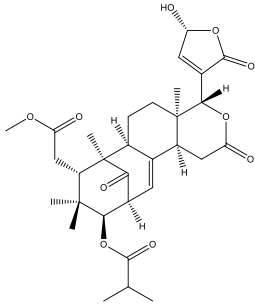
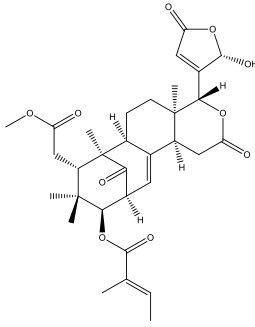
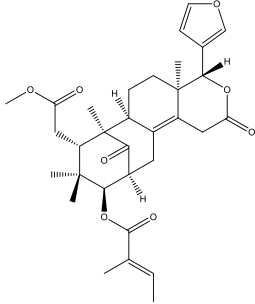
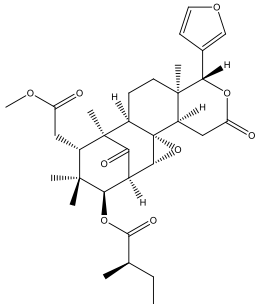
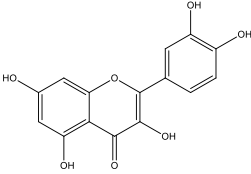
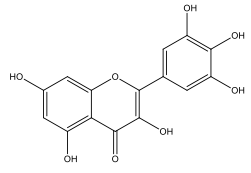
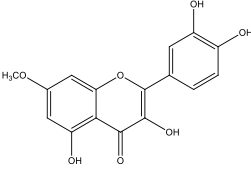
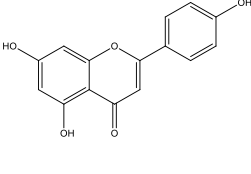
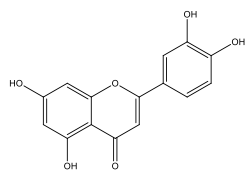
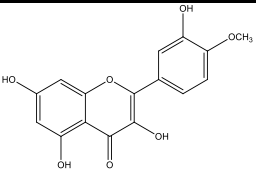
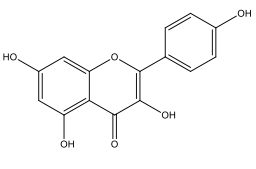
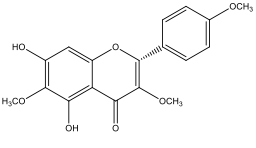
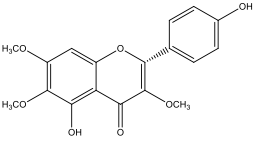
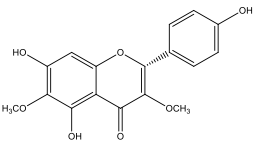
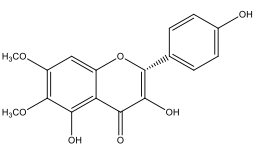
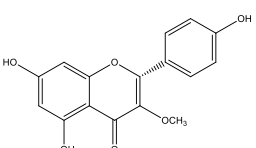
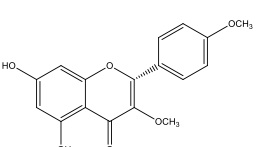
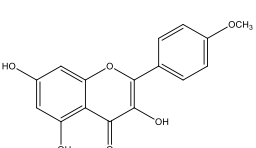
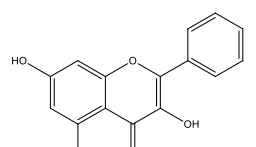
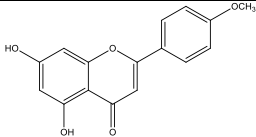
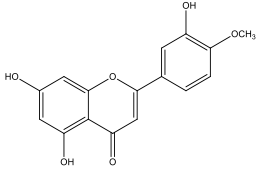
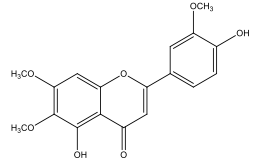
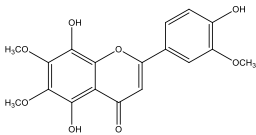
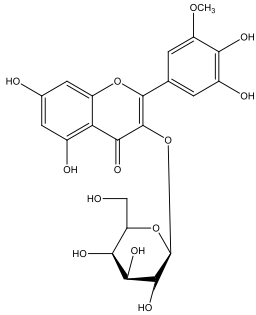
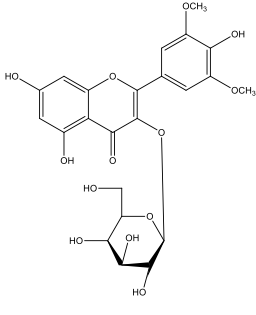
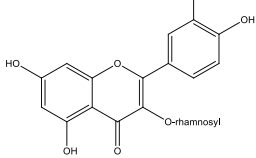
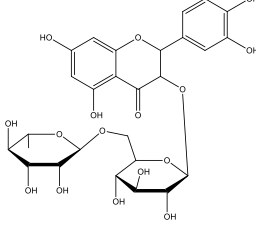
126.	sandaracopimaric acid		<i>Cupressus macrocarpa</i>	195.99 µg/mL (IC ₅₀)	-	[41]
127.	Agathadiol		<i>Cupressus macrocarpa</i>	228.47 µg/mL (IC ₅₀)	-	[41]
128.	3-O-detigloyl-3-O-isobutyrylfebrifugin A		<i>Cipadessa baccifera</i>	25.69±1.84% (50 µM)	-	[42]
129.	Granatumin E		<i>Cipadessa baccifera</i>	23.98±1.55% (50 µM)	-	[42]
130.	Khaysin T		<i>Cipadessa baccifera</i>	25.13±3.55% (50 µM)	-	[42]
131.	2'S-cipadesin A		<i>Cipadessa baccifera</i>	38.76±4.33% (50 µM)	-	[42]

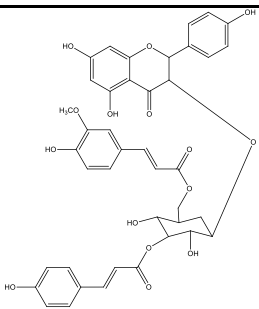
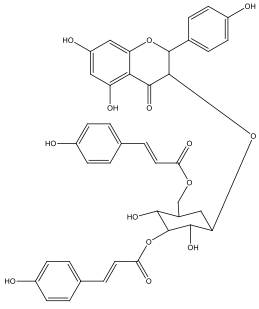
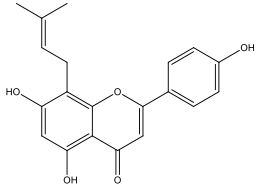
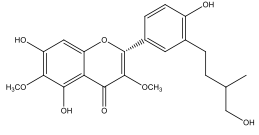
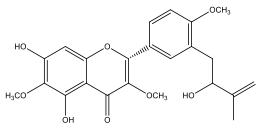
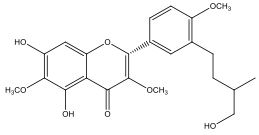
Table S 2: Phenolic compounds as Acetyl and Butyryl cholinesterase inhibitors

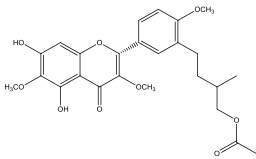
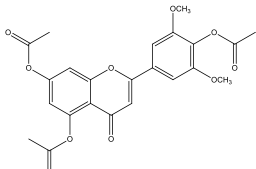
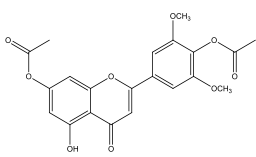
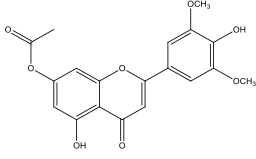
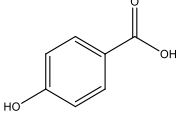
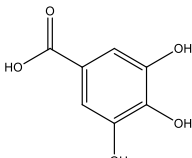
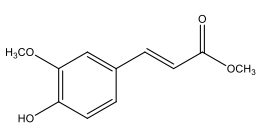
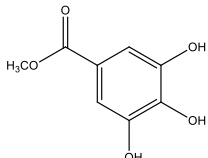
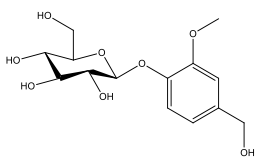
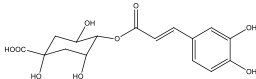
Number	Name	Structure	Plant source	IC ₅₀ or %inh (conc.)		Reference
				AChE	BChE	
1.	Quercetin		<i>Aristotelia chilensis</i>	47.8 µg/mL (IC ₅₀)	38.8 µg/mL (IC ₅₀)	[43]
			<i>Eugenia dysenterica</i>	46.59±0.49 µg/mL (IC ₅₀)	-	[44]
			<i>Leiotulus dasyanthus</i>	-	6.98 ± 3.01 % (20 µg/mL)	[45]
			<i>Cleistocalyx perculatus</i>	25.9 ± 1.7 µM (IC ₅₀)	177.8 ± 11.9 µM (IC ₅₀)	[46]
			<i>Bassia indica</i>	18±1.3 µg/mL (IC ₅₀)	-	[34]
2.	Myricetin		<i>Aristotelia chilensis</i>	37.2 µg/mL (IC ₅₀)	70.7 µg/mL (IC ₅₀)	[43]
3.	Rhamnetin		<i>Aristotelia chilensis</i>	89.9 µg/mL (IC ₅₀)	7.8 µg/mL (IC ₅₀)	[43]
4.	Apigenin		<i>Aristotelia chilensis</i>	19.7 µg/mL (IC ₅₀)	24.5 µg/mL (IC ₅₀)	[43]
			<i>Thunbergia erecta</i>	37.33 ± 4.02 ng/mL (IC ₅₀)	-	[47]
			<i>Helichrysum plicatum</i>	1.78 µM (IC ₅₀)	1.88 µM (IC ₅₀)	[48]
5.	Luteolin		<i>Aristotelia chilensis</i>	15.9 µg/mL (IC ₅₀)	49.8 µg/mL (IC ₅₀)	[43]
			<i>Achillea millefolium</i>	2.12 ± 0.145 µM (IC ₅₀)	2.45 ± 0.099 µM (IC ₅₀)	[49]

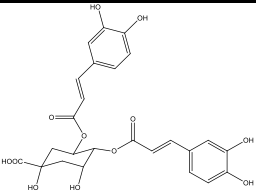
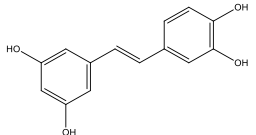
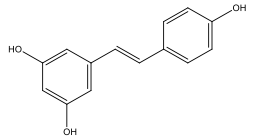
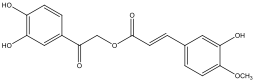
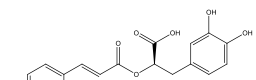
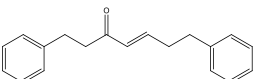
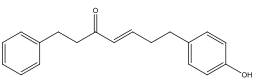
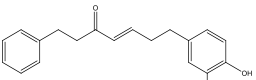
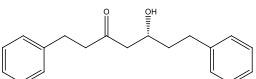
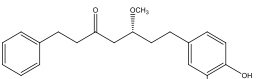
6.	Tamarixetin		<i>Cleistocalyx perculatus</i>	$22.3 \pm 2.2 \mu\text{M}$ (IC ₅₀)	$160.6 \pm 3.8 \mu\text{M}$ (IC ₅₀)	[46]
7.	Kaempferol		<i>Cleistocalyx perculatus</i>	$30.4 \pm 2.2 \mu\text{M}$ (IC ₅₀)	$62.5 \pm 1.3 \mu\text{M}$ (IC ₅₀)	[46]
			<i>Eupatorium adenophorum</i>	24.92 ± 0.49 $\mu\text{g/mL}$ (IC ₅₀)	-	[50]
8.	Santin		<i>Dodonaea viscosa</i>	$>300 \mu\text{M}$ (IC ₅₀)	274.07 ± 1.68 μM (IC ₅₀)	[51]
9.	Penduletin		<i>Dodonaea viscosa</i>	175.11 ± 1.36 μM (IC ₅₀)	55.78 ± 1.01 μM (IC ₅₀)	[51]
10.	Viscosine		<i>Dodonaea viscosa</i>	182.97 ± 1.25 μM (IC ₅₀)	47.07 ± 0.54 μM (IC ₅₀)	[51]
11.	6,7-dimethylkaempferol		<i>Dodonaea viscosa</i>	$>300 \mu\text{M}$ (IC ₅₀)	145.65 ± 1.45 μM (IC ₅₀)	[51]
12.	Kaempferol-3-methylether		<i>Dodonaea viscosa</i>	270.25 ± 1.16 μM	115.97 ± 1.18 μM	[51]
13.	3,4'-dimethoxy-5,7-dihydroxyflavone		<i>Dodonaea viscosa</i>	$>300 \mu\text{M}$ (IC ₅₀)	298.40 ± 2.01 μM (IC ₅₀)	[51]
14.	Kaempferide		<i>Alpinia officinarum</i>	$31.9 \pm 2.0 \mu\text{M}$ (IC ₅₀)	47.6 ± 1.6 (100 μM) (IC ₅₀)	[52]
15.	Galangin		<i>Alpinia officinarum</i>	$70.1 \pm 1.5 \mu\text{M}$ (IC ₅₀)	$61.4 \pm 1.4 \mu\text{M}$ (IC ₅₀)	[52]

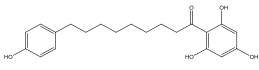
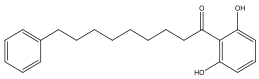
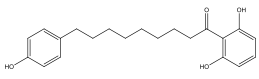
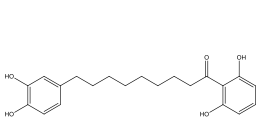
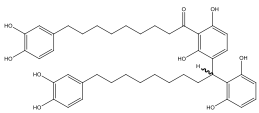
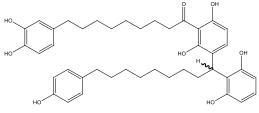
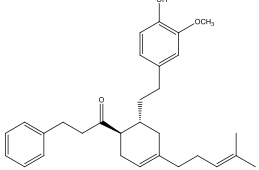
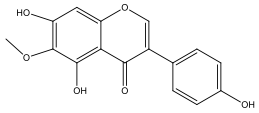
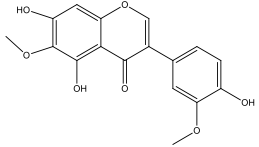
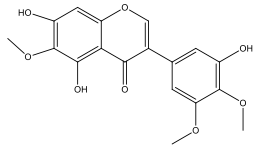
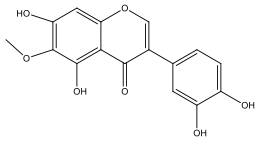
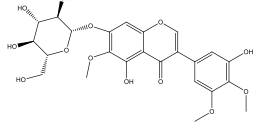
16.	Acacetin		<i>Aristotelia chilensis</i>	112.3 µg/mL (IC ₅₀)	177.8 µg/mL (IC ₅₀)	[43]
17.	Diosmetin		<i>Aristotelia chilensis</i>	45.6 µg/mL (IC ₅₀)	12.9 µg/mL (IC ₅₀)	[43]
18.	Cirsilineol		<i>Ocimum sanctum</i>	2.95 ± 0.02 µM (IC ₅₀)	3.25 ± 0.08 µM (IC ₅₀)	[53]
19.	Isothymusin		<i>Ocimum sanctum</i>	8.25 ± 0.13 µM (IC ₅₀)	7.85 ± 0.01 µM (IC ₅₀)	[53]
20.	Myricetin-3'-methylether 3-O-β-D-galactopyranoside		<i>Cleistocalyx perculatus</i>	19.9 ± 0.6 µM (IC ₅₀)	152.5 ± 0.4 µM (IC ₅₀)	[46]
21.	Myricetin-3',5'-dimethylether 3-O-β-D-galactopyranoside		<i>Cleistocalyx perculatus</i>	37.8 ± 1.0 µM (IC ₅₀)	> 800 µM (IC ₅₀)	[46]
22.	Quercitrin		<i>Aristotelia chilensis</i>	66.9 µg/mL (IC ₅₀)	78.8 µg/mL (IC ₅₀)	[43]
23.	Rutin		<i>Aristotelia chilensis</i>	169.8 µg/mL (IC ₅₀)	95.1 µg/mL (IC ₅₀)	[43]
			<i>Leiotulus dasyanthus</i>	-	5.95 ± 1.09 % (20 µg/mL)	[45]

			<i>Eupatorium adenophorum</i>	66.97±0.15 μg/mL (IC ₅₀)	-	[50]
24.	Isoorientin-6-O''-β-D-glucopyranoside		<i>Iris pseudopumila</i>	60.8±1.8 μM (IC ₅₀)	98.9±1.4 μM (IC ₅₀)	[54]
25.	Isovitexin-6-O''-β-D-glucopyranoside		<i>Iris pseudopumila</i>	85.9±3.6 μM (IC ₅₀)	>100 μM (IC ₅₀)	[54]
26.	kaempferol-3-O-β-D-glucopyranoside		<i>Iris pseudopumila</i>	50.4±1.4 μM (IC ₅₀)	76.8±1.7 μM (IC ₅₀)	[54]
			<i>Eupatorium adenophorum</i>	61.44±1.81 μg/mL (IC ₅₀)	-	[50]
27.	Apigenin-7-O-β-D-glucoside		<i>Achillea millefolium</i>	1.89 ± 0.067 μM (IC ₅₀)	2.13 ± 0.440 μM (IC ₅₀)	[49]
28.	Luteolin 7-O-β-D-glucoside		<i>Achillea millefolium</i>	1.67 ± 0.302 μM (IC ₅₀)	2.20 ± 0.058 μM (IC ₅₀)	[49]
29.	6-OH-luteolin 7-O-β-D-glucoside		<i>Achillea millefolium</i>	1.65 ± 0.122 μM (IC ₅₀)	1.97 ± 0.220 μM (IC ₅₀)	[49]
30.	Isoorientin		<i>Iris pseudopumila</i>	26.8±0.8 μM (IC ₅₀)	31.5±0.7 μM (IC ₅₀)	[54]
31.	Isovitexin		<i>Iris pseudopumila</i>	36.4±2.1 μM (IC ₅₀)	54.8±2.5 μM (IC ₅₀)	[54]

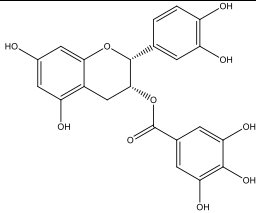
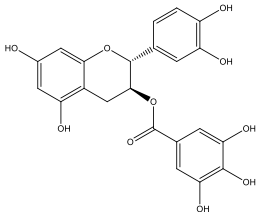
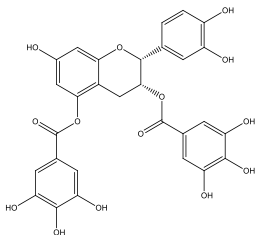
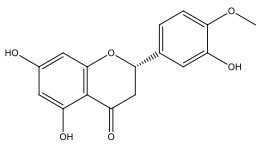
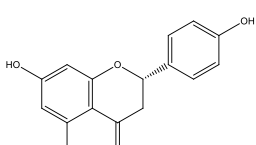
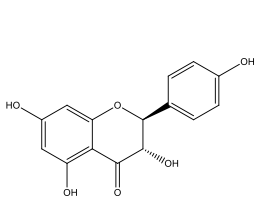
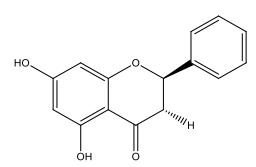
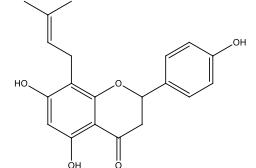
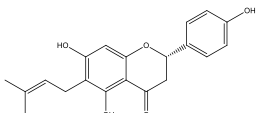
32.	kaempferol 3-O-(3''-O-E- p-couma- royl)-(6''-O- E-feruloyl)-β- glucopyra- noside		<i>Stenochlaena palus- tris</i>	-	113.66 ± 7.66 μM (IC ₅₀)	[55]
33.	kaempferol 3-O-(3'',6''- di-O-E-p- coumaroyl)- β-glucopyra- noside		<i>Stenochlaena palus- tris</i>	-	85.37 ± 7.62 μM (IC ₅₀)	[55]
34.	8- prenylnaring- enin		<i>Humulus lupulus</i>	28.15 ± 1.38 % (100 μM)	54.05 ± 2.89 % (100 μM)	[56]
35.	5,7,4'-trihy- droxy-3'-(3- hy- droxymethyl butyl)-3,6-di- methoxyfla- vone		<i>Dodonaea viscosa</i>	>300 μM (IC ₅₀)	222.54 ± 1.64 μM (IC ₅₀)	[51]
36.	5,7-dihy- droxy-3'-(2- hydroxy-3- methyl-3-bu- tenyl)-3,6,4'- trimethoxy- flavone		<i>Dodonaea viscosa</i>	>300 μM (IC ₅₀)	>300 μM (IC ₅₀)	[51]
37.	5,7-dihy- droxy-3'-(3- hydroxy- methyl- butyl)-3,6,4'- trimethox- yflavone		<i>Dodonaea viscosa</i>	>300 μM (IC ₅₀)	192.60 ± 1.96 μM (IC ₅₀)	[51]

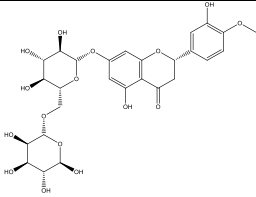
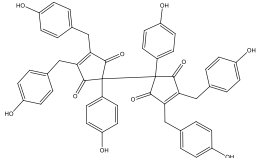
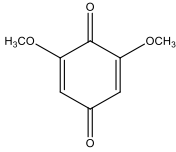
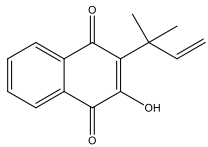
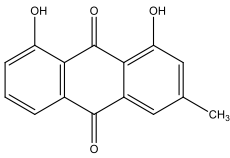
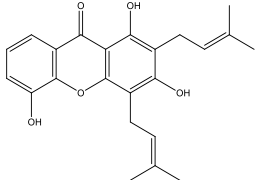
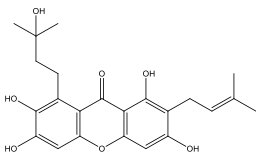
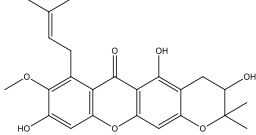
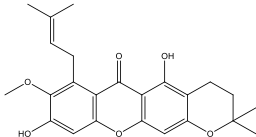
38.	5,7-dihydroxy-3'-(4''-acetoxy-3''-methylbutyl)-3,6,4'-trimethoxy flavone		<i>Dodonaea viscosa</i>	>300 μM (IC_{50})	>300 μM (IC_{50})	[51]
39.	Triacetyl triclin		<i>Rhynchospora corymbosa</i>	-	67.36 \pm 0.84 μM (IC_{50})	[21]
40.	Diacetyl triclin		<i>Rhynchospora corymbosa</i>	-	58.91 \pm 0.43 μM (IC_{50})	[21]
41.	Monoacetyl triclin		<i>Rhynchospora corymbosa</i>	-	24.25 \pm 0.21 μM (IC_{50})	[21]
42.	p-Hydroxybenzoic acid		<i>Nelumbo nucifera</i>	20.07 \pm 0.07 % (10 $\mu\text{g/mL}$)	62.29 \pm 1.18 % (10 $\mu\text{g/mL}$)	[17]
43.	Gallic acid		<i>Orostachys japonicus</i>	185.2 \pm 2.1 μM (IC_{50})	1000 μM (IC_{50})	[57]
44.	Ferulic acid methyl ester		<i>Cimicifuga dahurica</i>	58.0 \pm 0.6 % (100 μM)	62.3 \pm 0.3 % (100 μM)	[18]
45.	methyl galate		<i>Orostachys japonicus</i>	171.2 \pm 1.5 μM (IC_{50})	1000 μM (IC_{50})	[57]
46.	vanilloloside		<i>Nelumbo nucifera</i>	4.55 \pm 0.72 % (10 $\mu\text{g/mL}$)	205.78 \pm 0.79 % (10 $\mu\text{g/mL}$)	[17]
47.	4-O-caffeoyl-quinic acid		<i>Acanthopanax henryi</i>	80.2 \pm 2.2 μM (IC_{50})	-	[58]

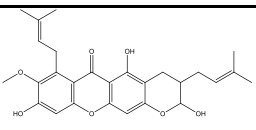
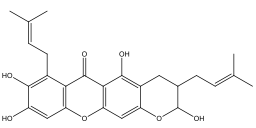
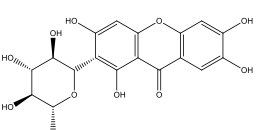
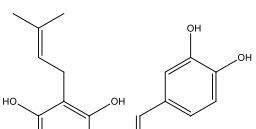
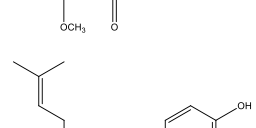
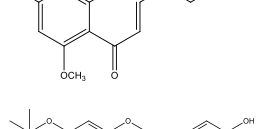
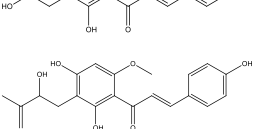
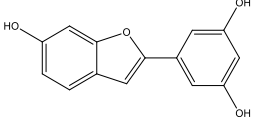
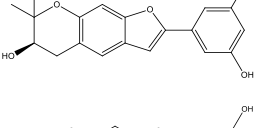
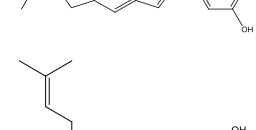
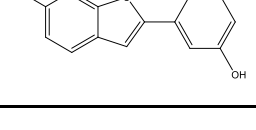

48.	4,5-di- caffeoylquini- c acid		<i>Acanthopanax henryi</i>	62.6 ± 8.3 μM (IC ₅₀)	-	[58]
49.	Piceatannol		<i>Belamcandae chinensis rhizoma</i>	67.07 ± 1.52 % (100 μg/mL)	91.10 ± 1.26 % (100 μg/mL)	[59]
50.	Resveratrol		<i>Belamcandae chinensis rhizoma</i>	14.43 ± 1.46 % (100 μg/mL)	56.30 ± 2.33 % (100 μg/mL)	[59]
			<i>Rheum lhasaense</i>	1709 ± 56.56 μM (IC ₅₀)	-	[60]
51.	Cimicifuge- none		<i>Cimicifuga dahurica</i>	65.4 ± 0.9 % (100 μM)	13.6 ± 0.7 % (100 μM)	[18]
52.	Rosmarinic acid		<i>Perovskia atriplicifolia</i>	28.18 ± 5.13 % (10 μg/mL)	80.74 ± 4.03 % (10 μg/mL)	[16]
53.			<i>Thunbergia erecta</i>	83.02 ± 4.74 ng/mL (IC ₅₀)	-	[47]
54.	(4E)-1,7-di- phenyl-4- hepten-3-one		<i>Alpinia officinarum</i>	23.9 ± 2.6 μM (IC ₅₀)	70.7 ± 2.5 μM (IC ₅₀)	[52]
55.	(4E)-7-(4-hy- droxy- phenyl)- 1-phenyl-4- hepten-3-one		<i>Alpinia officinarum</i>	87.3 ± 3.4 μM (IC ₅₀)	41.1 ± 0.1 % (100 μM)	[52]
56.	(4E)-7-(4-hy- droxy-3- methoxy- phenyl)-1- phenyl-hept- 4-en-3-one		<i>Alpinia officinarum</i>	39.1 ± 2.3 μM (IC ₅₀)	43.7 ± 1.4 % (100 μM)	[52]
57.	Dihy- drodash- sbushiketol		<i>Alpinia officinarum</i>	36.2 ± 1.9 % (100 μM)	15.7 ± 2.1 % (100 μM)	[52]
58.	(5R)-7-(4-hy- droxy-3- methoxy- phenyl)-5- methoxy-1-		<i>Alpinia officinarum</i>	35.3 ± 1.0 % (100 μM)	21.5 ± 0.6 % (100 μM)	[52]

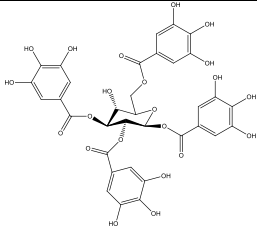
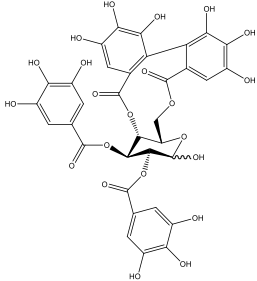
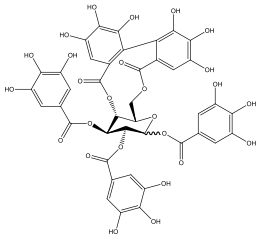
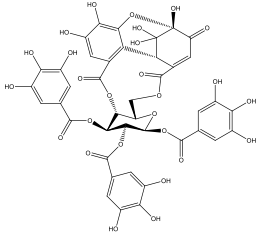
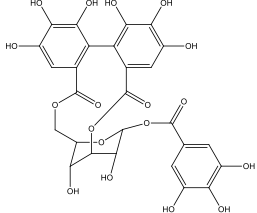
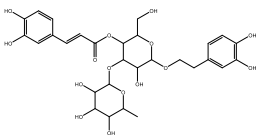
	phenyl-3-heptanone					
59.	malabaricone E		<i>Myristica cin-namomea</i>	$6.44 \pm 0.85 \mu\text{M}$ (IC ₅₀)	$6.65 \pm 0.13 \mu\text{M}$ (IC ₅₀)	[61]
60.	Malabar- icones A		<i>Myristica cin-namomea</i>	$1.31 \pm 0.17 \mu\text{M}$ (IC ₅₀)	$39.21 \pm 3.46 \mu\text{M}$ (IC ₅₀)	[61]
61.	Malabar- icones B		<i>Myristica cin-namomea</i>	$1.84 \pm 0.19 \mu\text{M}$ (IC ₅₀)	$1.76 \pm 0.21 \mu\text{M}$ (IC ₅₀)	[61]
62.	Malabaricone C		<i>Myristica cin-namomea</i>	$1.94 \pm 0.27 \mu\text{M}$ (IC ₅₀)	$2.80 \pm 0.49 \mu\text{M}$ (IC ₅₀)	[61]
			<i>Myristica fragrans</i>	$2.06 \pm 0.04 \mu\text{g/mL}$ (IC ₅₀)	-	[62]
63.	Maingayones A		<i>Myristica cin-namomea</i>	$12.66 \pm 1.48 \mu\text{M}$ (IC ₅₀)	$10.51 \pm 2.07 \mu\text{M}$ (IC ₅₀)	[61]
64.	Maingayones B		<i>Myristica cin-namomea</i>	$30.67 \pm 8.14 \mu\text{M}$ (IC ₅₀)	$12.52 \pm 2.86 \mu\text{M}$ (IC ₅₀)	[61]
65.	(-)-alpininoid B		<i>Alpinia officinarum</i>	$2.6 \pm 4.2 \mu\text{M}$ (IC ₅₀)	$35.2 \pm 0.7 \mu\text{M}$ (IC ₅₀)	[52]
66.	Tectorigenin		<i>Belamcandae chinensis rhizoma</i>	-	$18.08 \pm 2.93 \%$ (100 $\mu\text{g/mL}$)	[59]
67.	Iristectori- genin B		<i>Belamcandae chinensis rhizoma</i>	-	$37.07 \pm 0.47 \%$ (100 $\mu\text{g/mL}$)	[59]
68.	Irigenin		<i>Belamcandae chinensis rhizoma</i>	-	$20.12 \pm 2.47 \%$ (100 $\mu\text{g/mL}$)	[59]
69.	Irilin B		<i>Belamcandae chinensis rhizoma</i>	$3.67 \pm 1.44 \%$ (100 $\mu\text{g/mL}$)	$49.72 \pm 2.83 \%$ (100 $\mu\text{g/mL}$)	[59]
70.	Iridin		<i>Belamcandae chinensis rhizoma</i>	-	$4.29 \pm 2.04 \%$ (100 $\mu\text{g/mL}$)	[59]

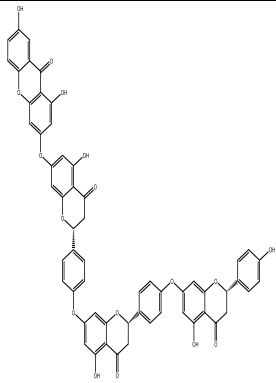
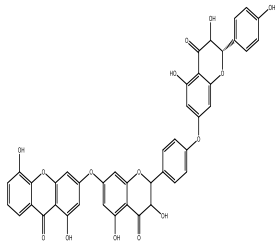
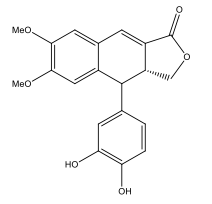
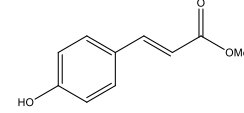
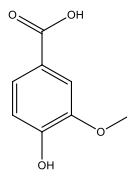
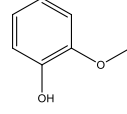
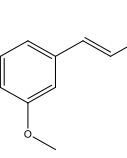
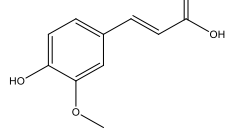
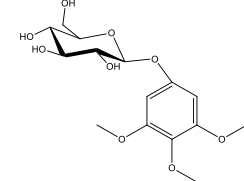
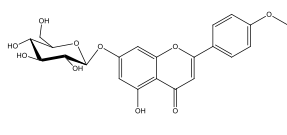
71.	Iristectorin B		<i>Belamcandae chinensis rhizoma</i>	-	9.44 ± 0.09 % (100 µg/mL)	[59]
72.	Irisflorentin		<i>Belamcandae chinensis rhizoma</i>	36.25 ± 1.22 % (100 µg/mL)	9.34 ± 2.21 % (100 µg/mL)	[59]
73.	Irilone		<i>Iris pseudopumila</i>	93.6±2.4 µM (IC ₅₀)	>100 µM (IC ₅₀)	[54]
74.	Irigenin-7-O-β-D-glucopyranoside		<i>Iris pseudopumila</i>	94.1±2.5 µM (IC ₅₀)	>100 µM (IC ₅₀)	[54]
75.	Irisolone-4'-O-β-D-glucopyranoside		<i>Iris pseudopumila</i>	93.2±2.6 µM (IC ₅₀)	>100 µM (IC ₅₀)	[54]
76.	Osajin		<i>Maclura pomifera</i>	2.239 mM (IC ₅₀)	-	[63]
77.	Pomiferin		<i>Maclura pomifera</i>	0.096 mM (IC ₅₀)	-	[63]
78.	Iso-osajin		<i>Maclura pomifera</i>	1.35 mM (IC ₅₀)	-	[63]
79.	Iso-pomiferin		<i>Maclura pomifera</i>	2.67 mM (IC ₅₀)	-	[63]
80.	Catechin		<i>Eugenia dysenterica</i>	42.39±0.67 µg/mL (IC ₅₀)	-	[44]
			<i>Kadsura coccinea</i>	7.58±2.45 µM (IC ₅₀)	-	[40]
81.	(+)-catechin		<i>Orostachys japonicus</i>	191.2 ± 1.3 µM (IC ₅₀)	727.3 ± 2.1 µM (IC ₅₀)	[57]

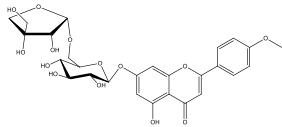
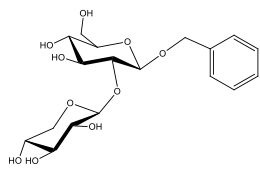
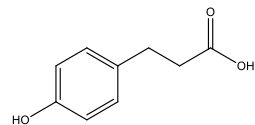
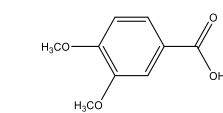
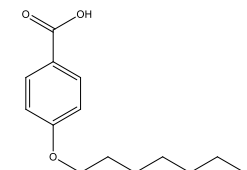
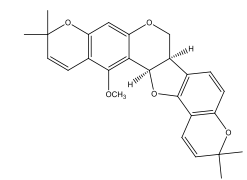
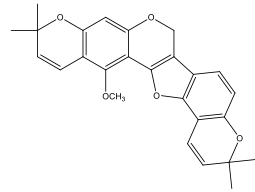
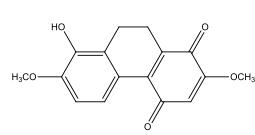
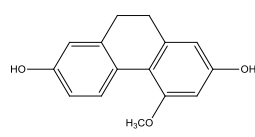
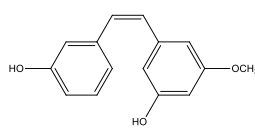
82.	(-)-epicatechin-3-O-gallate		<i>Orostachys japonicus</i>	$328.1 \pm 2.1 \mu\text{M}$ (IC ₅₀)	$412.5 \pm 1.2 \mu\text{M}$ (IC ₅₀)	[57]
83.	(+)-catechin-3-O-gallate		<i>Orostachys japonicus</i>	$142.8 \pm 3.7 \mu\text{M}$ (IC ₅₀)	$367.3 \pm 3.2 \mu\text{M}$ (IC ₅₀)	[57]
84.	(-)-epicatechin-3,5-O-digallate		<i>Orostachys japonicus</i>	$98.3 \pm 2.1 \mu\text{M}$ (IC ₅₀)	$30.4 \pm 2.4 \mu\text{M}$ (IC ₅₀)	[57]
85.	Hesperetin		<i>Citrus spp.</i>	$45.70 \pm 2.69 \mu\text{M}$ (IC ₅₀)	>100 μM (IC ₅₀)	[64]
86.	Naringenin		<i>Citrus spp.</i>	$42.66 \pm 4.30 \mu\text{M}$ (IC ₅₀)	>100 μM (IC ₅₀)	[64]
			<i>Eupatorium adenophorum</i>	$45.23 \pm 3.74 \mu\text{g/mL}$ (IC ₅₀)	-	[50]
87.	Aromaden-drin (2S,3S) 3,4',5,7-tetra-hydroxyfla-vanone		<i>Dodonaea viscosa</i>	$173.22 \pm 1.07 \mu\text{M}$ (IC ₅₀)	$95.13 \pm 1.24 \mu\text{M}$ (IC ₅₀)	[51]
88.	Pinocembrin		<i>Dodonaea viscosa</i>	>200 μM (IC ₅₀)	$99.36 \pm 0.87 \mu\text{M}$ (IC ₅₀)	[51]
89.	isoxanthohu-mol		<i>Humulus lupulus</i>	-	$13.87 \pm 0.95 \%$ (100 μM)	[56]
90.	6-prenylnaringenin		<i>Humulus lupulus</i>	$8.07 \pm 2.38 \%$ (100 μM)	$31.11 \pm 3.92 \%$ (100 μM)	[56]

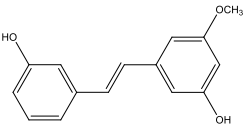
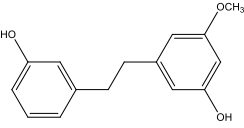
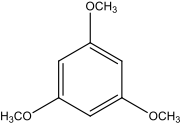
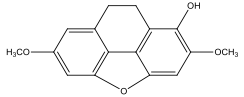
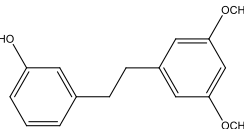
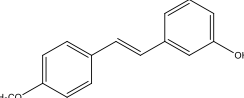
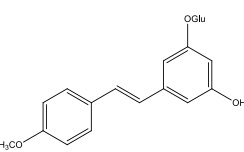
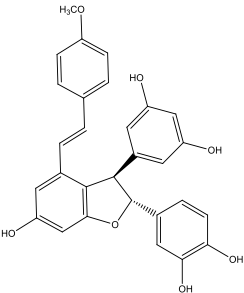
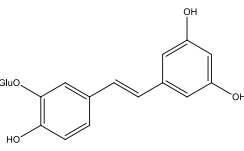
91.	Hesperidin		<i>Citrus spp</i>	22.80 ± 2.78 μM (IC_{50})	48.09 ± 0.74 μM (IC_{50})	[64]
92.	Nostotrebin 6		<i>Nostoc sp</i>	$5.5 \mu\text{M}$ (IC_{50})	$6.1 \mu\text{M}$ (IC_{50})	[65]
93.	2,6-di-methoxyl-p-benzoquinone		<i>Xylia xylocarpa</i>	$54.4 \pm 3.4 \mu\text{M}$ (IC_{50})	$42.7 \pm 7.6 \mu\text{M}$ (IC_{50})	[19]
94.	2-hydroxy-3-(1,1-dimethylallyl)-1,4-naphthoquinone)		<i>Calceolaria talcana</i>	-	$142.4 \mu\text{g/mL}$ (IC_{50})	[28]
95.	chrysophanol		<i>Xylia xylocarpa</i>	$77.3 \pm 0.8 \mu\text{M}$ (IC_{50})	$>100 \mu\text{M}$ (IC_{50})	[19]
96.	8-Deoxygarcitanin		<i>Garcinia mangostana</i>	$20.41 \mu\text{M}$ (IC_{50})	$6.47 \mu\text{M}$ (IC_{50})	[66]
97.	Garcinone C		<i>Garcinia mangostana</i>	$1.24 \mu\text{M}$ (IC_{50})	$8.96 \mu\text{M}$ (IC_{50})	[66]
98.	Mangostanol		<i>Garcinia mangostana</i>	$5.77 \mu\text{M}$ (IC_{50})	$10.41 \mu\text{M}$ (IC_{50})	[66]
99.	3-Isomangostin		<i>Garcinia mangostana</i>	$5.75 \mu\text{M}$ (IC_{50})	$12.96 \mu\text{M}$ (IC_{50})	[66]
100.	α -Mangostin		<i>Garcinia mangostana</i>	$2.14 \mu\text{M}$ (IC_{50})	$5.41 \mu\text{M}$ (IC_{50})	[66]

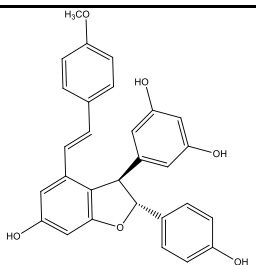
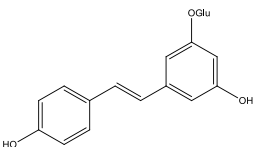
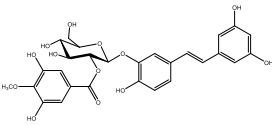
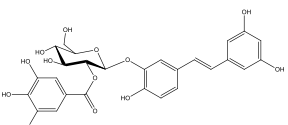
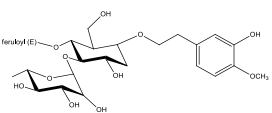
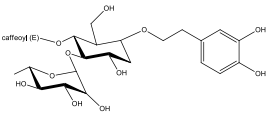
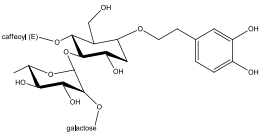
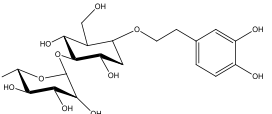
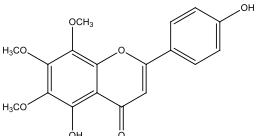
101.	γ -Mangostin		<i>Garcinia fusca</i>	2.38±0.20 μ M (IC ₅₀)	3.18±0.05 μ M (IC ₅₀)	[67]
			<i>Garcinia mangostana</i>	1.31 μ M (IC ₅₀)	1.78 μ M (IC ₅₀)	[66]
			<i>Garcinia fusca</i>	2.62±0.06 μ M (IC ₅₀)	1.05±0.02 μ M (IC ₅₀)	[67]
102.	Mangiferin		<i>Belamcandae chinensis rhizoma</i>	-	8.99 ± 2.26 % (100 μ g/mL)	[59]
103.	3-hydroxyxanthohumol		<i>Humulus lupulus</i>	72.12 ± 1.54 % (100 μ M)	68.95 ± 2.54 % (100 μ M)	[56]
104.	Xanthohumol		<i>Humulus lupulus</i>	55.71 ± 2.63 % (100 μ M)	75.76 ± 3.77 % (100 μ M)	[56]
105.	xanthohumol B		<i>Humulus lupulus</i>	18.00 ± 3.30 % (100 μ M)	47.52 ± 2.02 % (100 μ M)	[56]
106.	xanthohumol D		<i>Humulus lupulus</i>	9.42 ± 2.06 % (100 μ M)	20.86 ± 3.61 % (100 μ M)	[56]
107.	Moracin M		<i>Morus alba</i>	49.53 ± 1.01 μ M (IC ₅₀)	38.08 ± 0.57 μ M (IC ₅₀)	[68]
108.	Moracin P		<i>Morus alba</i>	52.59 ± 1.06 μ M (IC ₅₀)	37.96 ± 0.91 μ M (IC ₅₀)	[68]
109.	Moracin O		<i>Morus alba</i>	21.63 ± 3.26 μ M (IC ₅₀)	28.22 ± 0.31 μ M (IC ₅₀)	[68]
110.	Moracin S		<i>Morus alba</i>	32.36 ± 0.49 μ M (IC ₅₀)	7.22 ± 0.22 μ M (IC ₅₀)	[68]

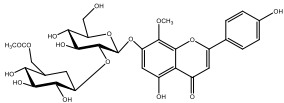
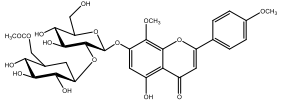
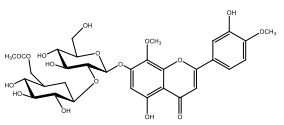
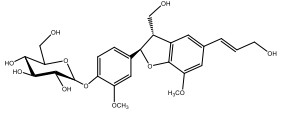
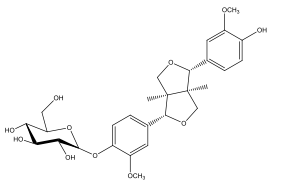
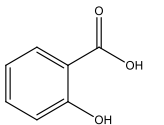
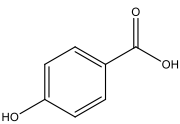
111.	1,2,3,6-Tetra-O-galloyl- β -D-glucose		<i>Cornus officinalis</i>	85.64 ± 0.03 $\mu\text{g/mL}$ (IC_{50})	70.22 ± 0.44 $\mu\text{g/mL}$ (IC_{50})	[69]
112.	Tellima-grandin I		<i>Cornus officinalis</i>	87.52 ± 0.32 $\mu\text{g/mL}$ (IC_{50})	92.08 ± 3.39 $\mu\text{g/mL}$ (IC_{50})	[69]
113.	Tellima-grandin II		<i>Cornus officinalis</i>	11.86 ± 0.56 $\mu\text{g/mL}$ (IC_{50})	18.29 ± 0.01 $\mu\text{g/mL}$ (IC_{50})	[69]
114.	Isoterchebin		<i>Cornus officinalis</i>	47.55 ± 0.54 $\mu\text{g/mL}$ (IC_{50})	20.65 ± 0.29 $\mu\text{g/mL}$ (IC_{50})	[69]
115.	Isocorilagin		<i>Phyllanthus niruri</i>	$0.49 \mu\text{M}$ (IC_{50})	$4.20 \mu\text{M}$ (IC_{50})	[70]
116.	verbascoside		<i>Calceolaria talcana</i>	$189.8 \mu\text{g/mL}$ (IC_{50})	$105.9 \mu\text{g/mL}$ (IC_{50})	[28]
			<i>Sideritis germani-copolitana</i>	$25.18 \pm 0.62\%$ ($250 \mu\text{g/mL}$)	$13.11 \pm 0.51\%$ ($250 \mu\text{g/mL}$)	[32]
			<i>Citharexylum spinosum</i>	-	$80.24 \pm 2.15 \mu\text{M}$ (IC_{50})	[36]

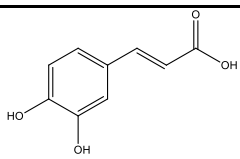
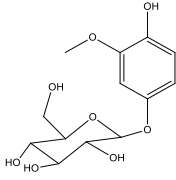
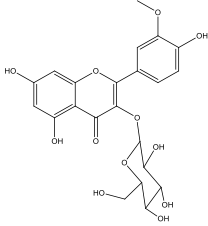
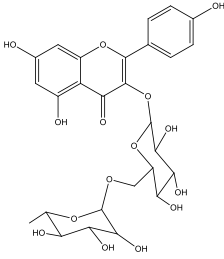
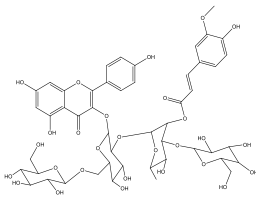
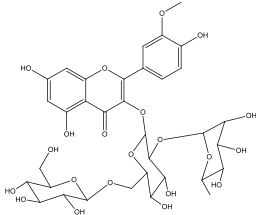
117.	Garcineflavanone A		<i>Garcinia atroviridis</i>	$80.15 \pm 6.65 \%$ (100 μM)	$12 \pm 3.84 \%$ (100 μM)	[71]
118.	Garcineflavonol A		<i>Garcinia atroviridis</i>	$68.45 \pm 0.97 \%$ (100 μM)	$54.66 \pm 3.87 \%$ (100 μM)	[71]
119.	Oleralignan A		<i>Portulaca oleracea</i>	58.31 ± 0.23 μM (IC_{50})	-	[29]
120.	trans-coumaric acid methyl ester		<i>Portulaca oleracea</i>	93.88 ± 0.39 μM (IC_{50})	-	[29]
			<i>Thunbergia erecta</i>	30.8 ± 1.61 ng/mL (IC_{50})	-	[47]
121.	Vanillic acid		<i>Croton oligandrus</i>	-	62.2 ± 0.06 μM (IC_{50})	[72]
			<i>Bassia indica</i>	88.3 ± 1.10 $\mu\text{g/mL}$ (IC_{50})	-	[34]
122.	trans-Ferulic acid		<i>Thunbergia erecta</i>	127.9 ± 7.31 ng/mL (IC_{50})	-	[47]
123.	3,4,5-Tri-methoxyphenol-1-O- β -D-glucoside		<i>Thunbergia erecta</i>	212.03 ± 9.31 ng/mL (IC_{50})	-	[47]
124.	Acacetin-7-O- β -D-glucoside		<i>Thunbergia erecta</i>	49.57 ± 2.14 ng/mL (IC_{50})	-	[47]

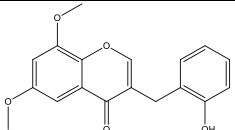
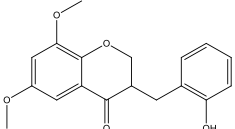
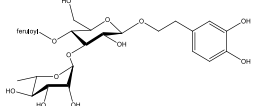
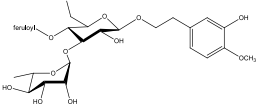
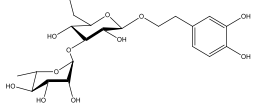
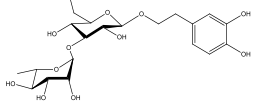
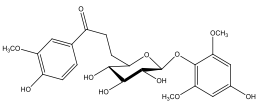
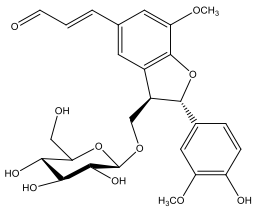
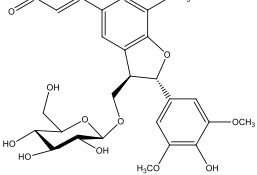
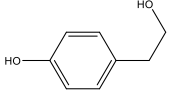
125.	Acacetin 7-O-(α -D-apiofuranosyl) (1 \rightarrow 6)- β -D-glucoside		<i>Thunbergia erecta</i>	372.70 \pm 21.3 ng/mL (IC ₅₀)	-	[47]
126.	Benzyl-7-O- β -xylopyranosyl (1'' \rightarrow 2')- β -D-glucoside		<i>Thunbergia erecta</i>	107.70 \pm 6.16 ng/mL (IC ₅₀)	-	[47]
127.	p-Coumaric acid		<i>Ziziphus oxyphylla</i>	80 μ g/mL (IC ₅₀)	80 μ g/mL (IC ₅₀)	[73]
128.	3,4-dimethoxy benzoic acid		<i>Ziziphus oxyphylla</i>	90 μ g/mL (IC ₅₀)	91 μ g/mL (IC ₅₀)	[73]
129.	4-Heptyloxy benzoic acid		<i>Ziziphus oxyphylla</i>	89 μ g/mL (IC ₅₀)	90 μ g/mL (IC ₅₀)	[73]
130.	Tomentocarpin A		<i>Lespedeza tomentosa</i>	-	0.50 mM (IC ₅₀)	[74]
131.	Tomentocarpin B		<i>Lespedeza tomentosa</i>	-	0.62 mM (IC ₅₀)	[74]
132.	Pholidotaphenan-threnequinone A		<i>Pholidota cantonensis</i>	59.96 \pm 1.88% (50 μ g/mL)	-	[75]
133.	2,7-Dihydroxy-4-methoxy-9,10-dihydrophenylene		<i>Pholidota cantonensis</i>	23.26 \pm 1.51% (50 μ g/mL)	-	[75]
134.	cis-3,3'-Dihydroxy-5-		<i>Pholidota cantonensis</i>	33.76 \pm 0.38% (50 μ g/mL)	-	[75]

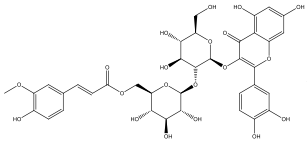
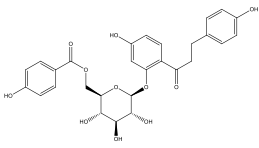
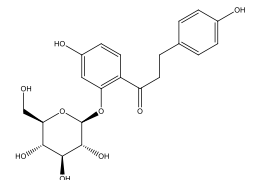
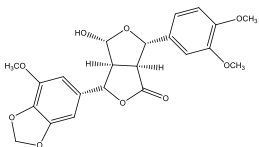
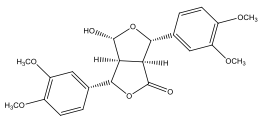
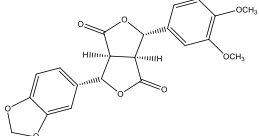
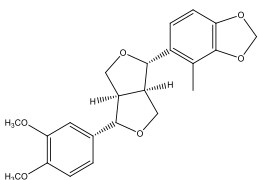
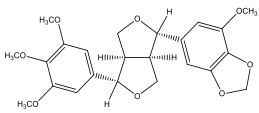
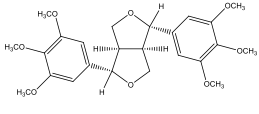
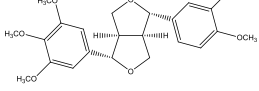
	methoxystilbene					
135.	Thunalbene		<i>Pholidota cantonensis</i>	37.23±0.82% (50 µg/mL)	-	[75]
136.	Batatasin III		<i>Pholidota cantonensis</i>	15.95±0.25% (50 µg/mL)	-	[75]
137.	1,3,5-Tri-methoxybenzene		<i>Pholidota cantonensis</i>	99.59±0.43% (50 µg/mL)	-	[75]
138.	Phocantol		<i>Pholidota cantonensis</i>	58.58±1.98% (50 µg/mL)	-	[75]
139.	3,5-Di-methoxy-3'-hydroxybibenzyl		<i>Pholidota cantonensis</i>	51.21±0.99% (50 µg/mL)	-	[75]
140.	Deoxyrhapontigenin		<i>Rheum lhasaense</i>	463.07±17.46 µM (IC ₅₀)	-	[60]
141.	Desoxyrhaponticin		<i>Rheum lhasaense</i>	912.97±78.51 µM (IC ₅₀)	-	[60]
142.	4'-methoxyscirpusin A		<i>Rheum lhasaense</i>	2.18±0.67 µM (IC ₅₀)	-	[60]
143.	Piceatannol-3'-O-glucoside		<i>Rheum lhasaense</i>	287.83±69.32 µM (IC ₅₀)	-	[60]

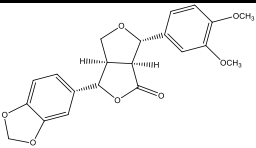
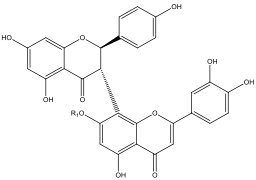
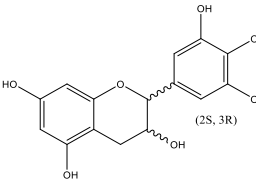
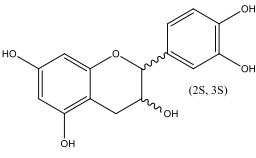
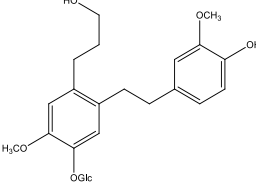
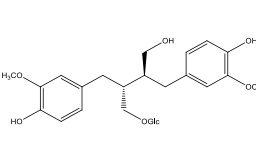
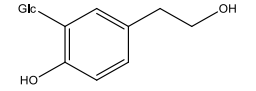
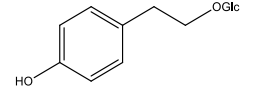
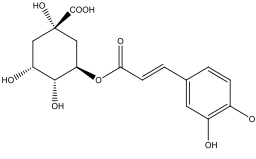
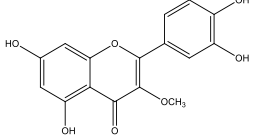
144.	ϵ -viniferin		<i>Rheum lhasaense</i>	113.73±11.01 μ M (IC ₅₀)	-	[60]
145.	Polydatin		<i>Rheum lhasaense</i>	694.13±150.62 μ M (IC ₅₀)	-	[60]
146.	Piceatannol-3'-O-[2''-(3,5-dihydroxy-4-methoxybenzoyl)]- β -D-glucopyranoside		<i>Rheum lhasaense</i>	38.93±1.66 μ M (IC ₅₀)	-	[60]
147.	Piceatannol-3'-O-(2''-galloyl)- β -D-glucopyranoside		<i>Rheum lhasaense</i>	45.18±8.83 μ M (IC ₅₀)	-	[60]
148.	Martynoside		<i>Sideritis germani-copolitana</i>	20.75±0.50% (250 μ g/mL)	12.08±0.33% (250 μ g/mL)	[32]
149.	Leucoseptoside A		<i>Sideritis germani-copolitana</i>	21.30±0.71% (250 μ g/mL)	11.50±0.48% (250 μ g/mL)	[32]
150.	Lamalboside		<i>Sideritis germani-copolitana</i>	21.37±0.69% (250 μ g/mL)	16.92±0.48% (250 μ g/mL)	[32]
151.	De-caffeoylverbascoside		<i>Sideritis germani-copolitana</i>	18.35±0.53% (250 μ g/mL)	11.05±0.25% (250 μ g/mL)	[32]
152.	Xanthomicrol		<i>Sideritis germani-copolitana</i>	19.47±0.66% (250 μ g/mL)	11.36±0.36% (250 μ g/mL)	[32]

153.	Isoscutel- larenin 7-O- [6'''-O-acetyl- β-allopyra- nosyl- (1→2)]-β-glu- copyranoside		<i>Sideritis germani- copolitana</i>	18.47±0.41% (250 µg/mL)	12.91±0.39% (250 µg/mL)	[32]
154.	4'-O-methyl- isoscutel- larenin 7-O- [6'''-O-acetyl- β-allopyra- nosyl- (1→2)]-β-glu- copyranoside		<i>Sideritis germani- copolitana</i>	27.90±0.68% (250 µg/mL)	16.32±0.29% (250 µg/mL)	[32]
155.	3'-hydroxy- 4'-O-methyl- isoscutel- larenin 7-O- [6'''-O-acetyl- β-allopyra- nosyl- (1→2)]-β-glu- copyranoside		<i>Sideritis germani- copolitana</i>	22.79±0.78% (250 µg/mL)	19.41±0.63% (250 µg/mL)	[32]
156.	Dehydro- diconiferylal- cohol 4-O-β- D-glucopyra- nose		<i>Sideritis germani- copolitana</i>	24.32±0.57% (250 µg/mL)	14.28±0.41% (250 µg/mL)	[32]
157.	Pinoresinol 4'-O-β-gluco- pyranoside		<i>Sideritis germani- copolitana</i>	20.17±0.44% (250 µg/mL)	11.02±0.35% (250 µg/mL)	[32]
158.	o-hy- droxybenzoic acid		<i>Bassia indica</i>	48.5% (250 µg/mL)	-	[34]
159.	p-hy- droxybenzoic acid		<i>Bassia indica</i>	203.2±4.5 µg/mL (IC ₅₀)	-	[34]

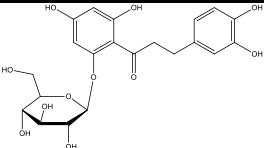
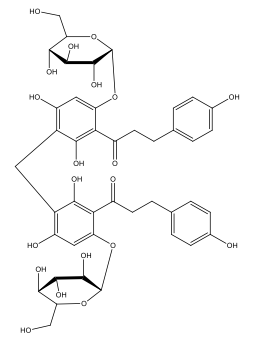
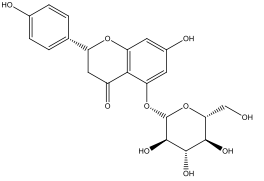
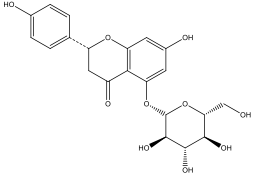
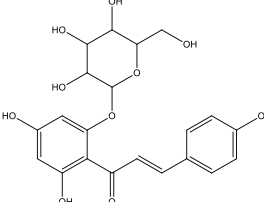
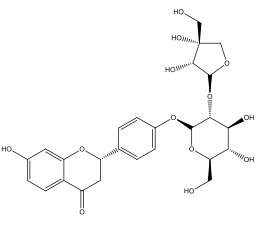
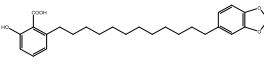
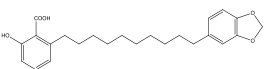
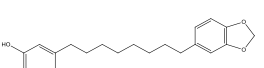
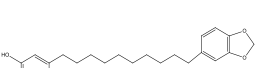
160.	caffeic acid		<i>Bassia indica</i>	112.9±3.08 μg/mL (IC ₅₀)	-	[34]
161.	tachioside		<i>Bassia indica</i>	26% (250 μg/mL)	-	[34]
162.	isorham- netin-3-O-β- D-glucoside		<i>Bassia indica</i>	93.2±1.2 μg/mL (IC ₅₀)	-	[34]
163.	kaempferol- 3-O-rutino- side		<i>Bassia indica</i>	27.9±0.8 μg/mL (IC ₅₀)	-	[34]
164.	kaempferol- 3-O-β-Dglu- copyranosyl- (1→6)-O-[β- D-galactopy- ranosyl- (1→3)-2-O- trans-feru- loyl-α-L- rhamnopyra- nosyl- (1→2)]-β-D- glucopyra- noside		<i>Bassia indica</i>	40.6% (250 μg/mL)	-	[34]
165.	isorham- netin-3-O-β- D-glucopyra- nosyl-(1→6)- O-[α-Lrham- nopyranosyl- (1→2)]-β-D- glucopyra- noside		<i>Bassia indica</i>	35% (250 μg/mL)	-	[34]

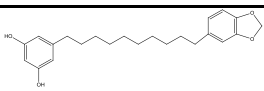
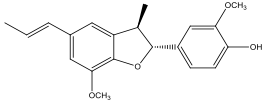
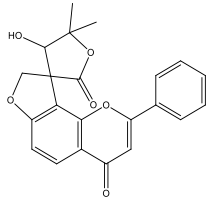
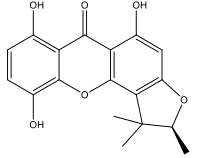
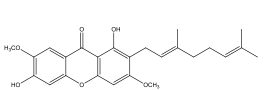
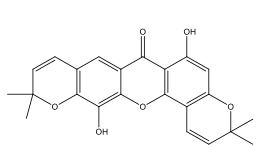
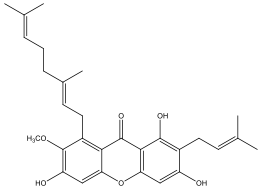
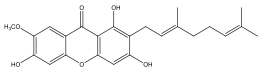
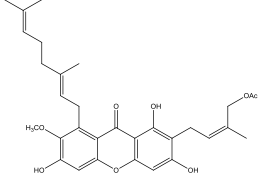
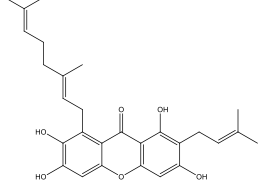
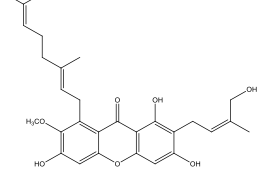
166.	Oleracone J		<i>Portulaca oleracea</i>	59.08±0.05 µM (IC ₅₀)	-	[76]
167.	Oleracone K		<i>Portulaca oleracea</i>	67.89 ± 0.09 µM (IC ₅₀)	-	[76]
168.	Leucosceptoside A		<i>Citharexylum spinosum</i>	-	72.85±1.14 µM (IC ₅₀)	[36]
169.	Martynoside		<i>Citharexylum spinosum</i>	-	58.77±2.00 µM (IC ₅₀)	[36]
170.	Isoverbascoside		<i>Citharexylum spinosum</i>	-	48.47±1.80 µM (IC ₅₀)	[36]
171.	Plantainoside C		<i>Citharexylum spinosum</i>	-	28.44±0.86 µM (IC ₅₀)	[36]
172.	4-hydroxy-2,6-dimethoxyphenyl 6'-O-vanilloyl-β-D-glucopyranoside		<i>Citharexylum spinosum</i>	-	117.65±2.46 µM (IC ₅₀)	[36]
173.	Plucheoside D ₁		<i>Citharexylum spinosum</i>	-	98.14±2.72 µM (IC ₅₀)	[36]
174.	Plucheoside D ₂		<i>Citharexylum spinosum</i>	-	71.28 ± 2.82 µM (IC ₅₀)	[36]
175.	Tyrosol		<i>Citharexylum spinosum</i>	-	120.18±1.90 µM (IC ₅₀)	[36]

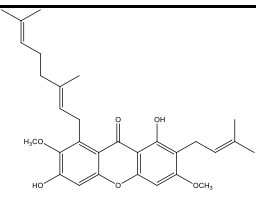
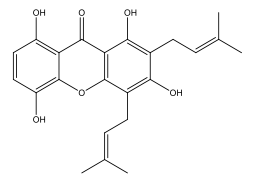
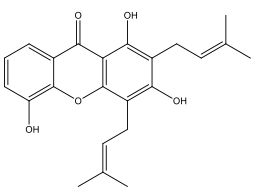
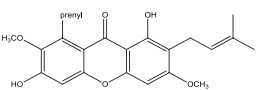
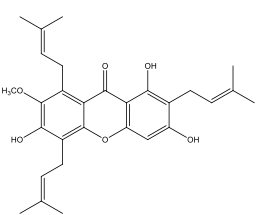
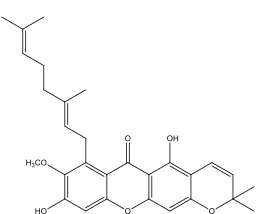
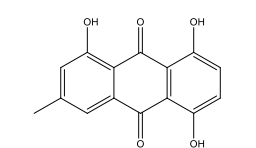
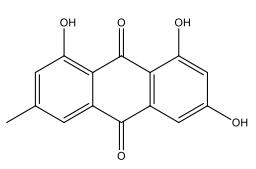
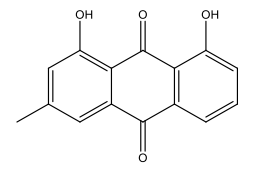
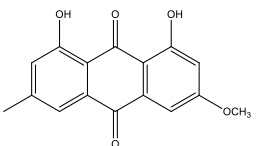
176.	quercetin-3-O-[2''-O-(6'''-O-E-feruloyl)-β-D-glucopyranosyl]-β-D-glucopyranoside		<i>Hedyotis diffusa</i>	46.22 ± 1.59 μM (IC ₅₀)	13.77 ± 0.37 μM (IC ₅₀)	[37]
177.	6''-O-p-hydroxybenzoyl-davidioside		<i>Viburnum davidii</i>	36.883±3.021 μM (IC ₅₀)	39.274±0.491 μM (IC ₅₀)	[77]
178.	Davidioside		<i>Viburnum davidii</i>	39.504±1.121 μM (IC ₅₀)	43.101±0.512 μM (IC ₅₀)	[77]
179.	ciquitin A		<i>Leucophyllum ambiguum</i>	3 nM (IC ₅₀)	-	[78]
180.	ciquitin B		<i>Leucophyllum ambiguum</i>	28 nM (IC ₅₀)	-	[78]
181.	ciquitin D		<i>Leucophyllum ambiguum</i>	158 nM (IC ₅₀)	-	[78]
182.	3-methoxy-kobusin		<i>Leucophyllum ambiguum</i>	93 nM (IC ₅₀)	-	[78]
183.	sasertemin		<i>Leucophyllum ambiguum</i>	0.46 μM (IC ₅₀)	-	[78]
184.	yangambin		<i>Leucophyllum ambiguum</i>	0.616 μM (IC ₅₀)	-	[78]
185.	magnolin		<i>Leucophyllum ambiguum</i>	0.903 μM (IC ₅₀)	-	[78]

186.	ciquitin C		<i>Leucophyllum ambiguum</i>	2.229 μM (IC_{50})	-	[78]
187.	Garcinia bi-flavonoid 2		<i>Garcinia fusca</i>	-	16.75 \pm 0.23 μM (IC_{50})	[67]
188.	(+) gallo cate-chin		<i>Kadsura coccinea</i>	46.78 \pm 1.92 μM (IC_{50})	-	[40]
189.	(-)-epicate-chin		<i>Kadsura coccinea</i>	68.28 \pm 1.11 μM (IC_{50})	-	[40]
190.	Icariside E3		<i>Kadsura coccinea</i>	59.59 \pm 1.62 μM (IC_{50})	-	[40]
191.	(-)-secoiso-lariciresinol-9-O β -D-xylopyranoside		<i>Kadsura coccinea</i>	59.14 \pm 3.84 μM (IC_{50})	-	[40]
192.	cimida-hurinine		<i>Kadsura coccinea</i>	87.20 \pm 1.12 μM (IC_{50})	-	[40]
193.	salidroside		<i>Kadsura coccinea</i>	98.75 \pm 2.20 μM (IC_{50})	-	[40]
194.	chlorogenic acid		<i>Kadsura coccinea</i>	57.58 \pm 2.45 μM (IC_{50})	-	[40]
195.	3-methoxy-yquercetin		<i>Cassia timorensis</i>	83.71 \pm 4.67 μM (IC_{50})	-	[79]

196.	querceta- getin-7-O-(6- O-caffeoyl-β- D-glucopyra- noside)		<i>Eupatorium adenophorum</i>	12.08±0.42 μg/mL (IC ₅₀)	-	[50]
197.	querceta- getin-7-O-(6- O-p-couma- royl-β-gluco- pyranoside)		<i>Eupatorium adenophorum</i>	15.01±0.01 μg/mL (IC ₅₀)	-	[50]
198.	4'-methyl quercetagetin 7-O-(6''-O-E- caffeoyl glu- copyra- noside)		<i>Eupatorium adenophorum</i>	17.12±0.40 μg/mL (IC ₅₀)	-	[50]
199.	5,4'-Dihy- droxytlavone		<i>Eupatorium adenophorum</i>	28.63±1.66 μg/mL (IC ₅₀)	-	[50]
200.	chrysoeriol		<i>Eupatorium adenophorum</i>	49.27±0.40 μg/mL (IC ₅₀)	-	[50]
201.	chrysople- netin		<i>Eupatorium adenophorum</i>	86.01±2.52 μg/mL (IC ₅₀)	-	[50]
202.	quercetin-3- O-β-D-gluco- pyranoside		<i>Eupatorium adenophorum</i>	54.94±0.16 μg/mL (IC ₅₀)	-	[50]
203.	fortunellin		<i>Eupatorium adenophorum</i>	67.56±0.13 μg/mL (IC ₅₀)	-	[50]

204.	3-hydroxy-phloridzin		<i>Eupatorium adenophorum</i>	49.67±0.06 µg/mL (IC ₅₀)	-	[50]
205.	methylenebisphloridzin		<i>Eupatorium adenophorum</i>	50.19±0.79 µg/mL (IC ₅₀)	-	[50]
206.	helichrysin A		<i>Helichrysum plicatum</i>	1.69 µM (IC ₅₀)	2.27 µM (IC ₅₀)	[48]
207.	helichrysin B		<i>Helichrysum plicatum</i>	2.90 µM (IC ₅₀)	3.89 µM (IC ₅₀)	[48]
208.	isosalipurposide		<i>Helichrysum plicatum</i>	2.53 µM (IC ₅₀)	3.78 µM (IC ₅₀)	[48]
209.	Liquiritin apioside		<i>Glycyrrhiza uralensis</i>	36.68±1.42 µM (IC ₅₀)	>40 µM (IC ₅₀)	[80]
210.	Knepachy-carpic acid A		<i>Knema pachycarpa</i>	8.19±0.63 µM (IC ₅₀)	-	[81]
211.	Knepachy-carpic acid B		<i>Knema pachycarpa</i>	3.89±0.33 µM (IC ₅₀)	-	[81]
212.	Knepachy-carpanol A		<i>Knema pachycarpa</i>	2.60±0.24 µM (IC ₅₀)	-	[81]
213.	Knepachy-carpanol B		<i>Knema pachycarpa</i>	7.09±0.59 µM (IC ₅₀)	-	[81]

214.	Knepachy- carpasinol		<i>Knema pachycarpa</i>	2.46±0.23 µM (IC ₅₀)	-	[81]
215.	licarin A		<i>Myristica fragrans</i>	111.3±0.07 µg/mL (IC ₅₀)	-	[62]
216.	Glabrateph- rinol		<i>Tephrosia purpurea</i> subsp. <i>dunensis</i>	4.31±0.75 µM (IC ₅₀)	-	[82]
217.	garbogiol		<i>Garcinia fusca</i>	23.90±0.59 µM (IC ₅₀)	14.04±0.66 µM (IC ₅₀)	[67]
218.	3-methox- ycowaxan- thone		<i>Garcinia fusca</i>	73.15±0.32 µM (IC ₅₀)	108.28±0.47 µM (IC ₅₀)	[67]
219.	rheediaxan- thone A		<i>Garcinia fusca</i>	-	126.42±0.19 µM (IC ₅₀)	[67]
220.	cowanin		<i>Garcinia fusca</i>	1.09±0.09 µM (IC ₅₀)	0.51±0.006 µM (IC ₅₀)	[67]
221.	cowaxan- thone		<i>Garcinia fusca</i>	3.89±0.15 µM (IC ₅₀)	4.25±1.09 µM (IC ₅₀)	[67]
222.	Cowagarci- none E		<i>Garcinia fusca</i>	0.79±0.05 µM (IC ₅₀)	0.048±0.003 µM (IC ₅₀)	[67]
223.	Norcowanin		<i>Garcinia fusca</i>	0.33±0.04 µM (IC ₅₀)	0.35±0.03 µM (IC ₅₀)	[67]
224.	Cowanol		<i>Garcinia fusca</i>	0.72±0.05 µM (IC ₅₀)	1.84±0.29 µM (IC ₅₀)	[67]

225.	Fuscaxanthone M		<i>Garcinia fusca</i>	97.22±0.26 µM (IC ₅₀)	42.95±0.53 µM (IC ₅₀)	[67]
226.	Gartanin		<i>Garcinia fusca</i>	9.35±0.0003 µM (IC ₅₀)	1.46±0.00003 µM (IC ₅₀)	[67]
227.	8-desoxygartanin		<i>Garcinia fusca</i>	20.41±0.14 µM (IC ₅₀)	1.23±0.00003 µM (IC ₅₀)	[67]
228.	β-mangostin		<i>Garcinia fusca</i>	-	82.00±0.60 µM (IC ₅₀)	[67]
229.	7-methoxygartanin E		<i>Garcinia fusca</i>	10.95±0.13 µM (IC ₅₀)	2.92±0.06 µM (IC ₅₀)	[67]
230.	fuscaxanthone A		<i>Garcinia fusca</i>	81.26±5.9 µM (IC ₅₀)	25.67±0.23 µM (IC ₅₀)	[67]
231.	Helminthosporin		<i>Rumex abyssinicus</i>	2.63±0.09 µM (IC ₅₀)	2.99±0.55 µM (IC ₅₀)	[83]
232.	Emodin		<i>Rumex abyssinicus</i>	15.21±3.52 µM (IC ₅₀)	-	[83]
233.	Chrysophanol		<i>Rumex abyssinicus</i>	33.7±1.83 µM (IC ₅₀)	-	[83]
234.	Physcion		<i>Rumex abyssinicus</i>	12.16±0.36 µM (IC ₅₀)	-	[83]

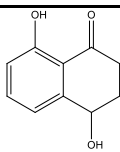
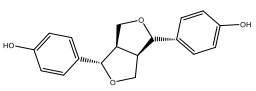
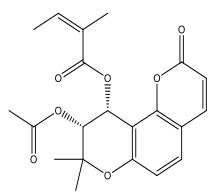
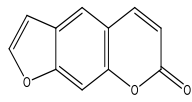
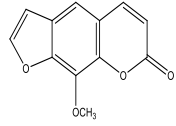
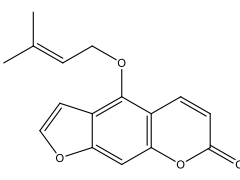
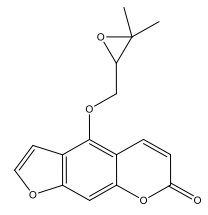
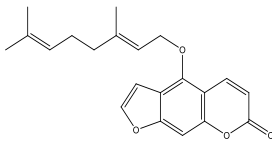
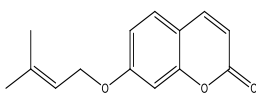
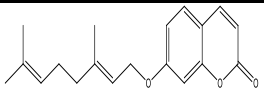
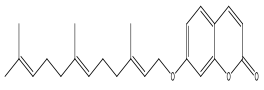
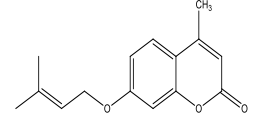
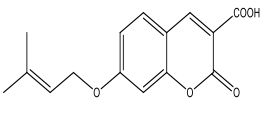
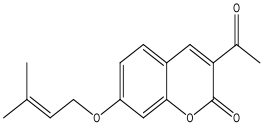
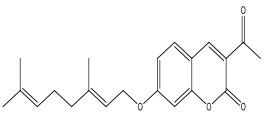
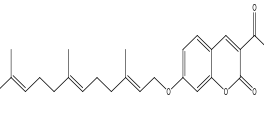
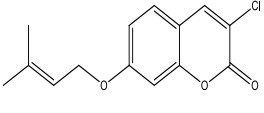
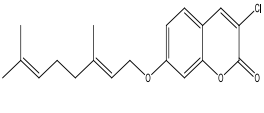
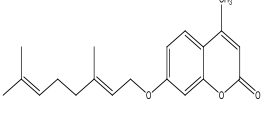
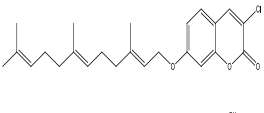
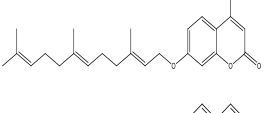
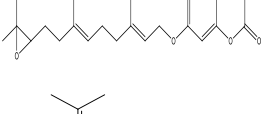
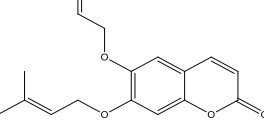
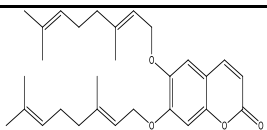
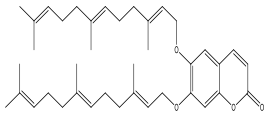
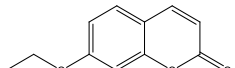
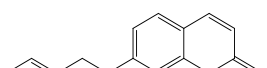
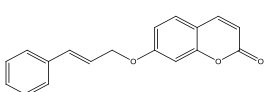
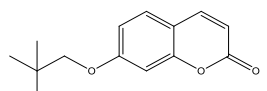
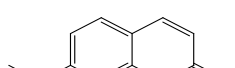
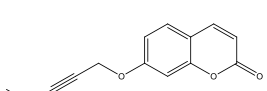
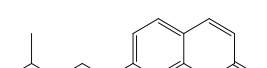
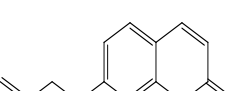
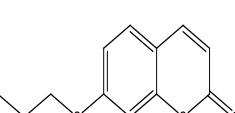
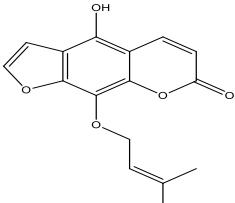
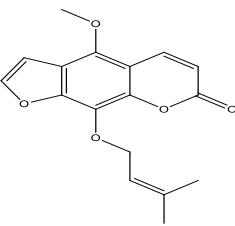
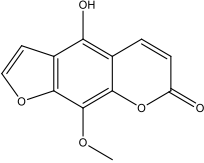
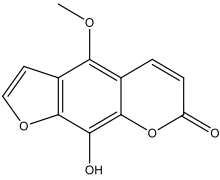
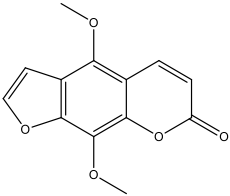
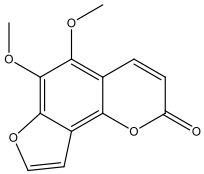
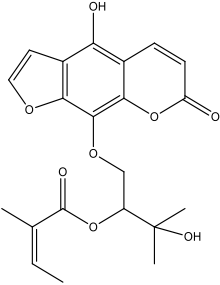
235.	4,8-Dihydroxytetralone		<i>Carya illinoensis</i>	101.48±4.00 µg/mL (IC ₅₀)	-	[84]
236.	(+)-Ligbalinol		<i>Momordica Charantia</i>	-	32.2±0.2 % (50 µM)	[85]

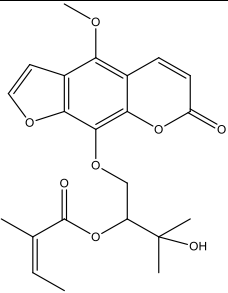
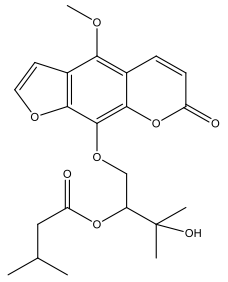
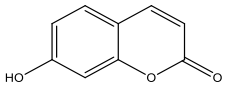
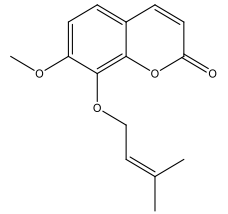
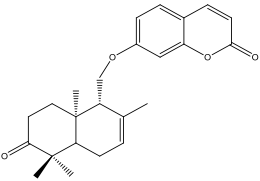
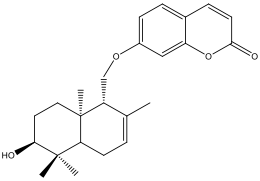
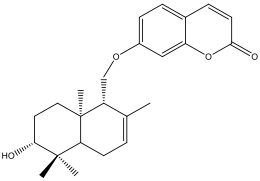
Table S3: Coumarins as Acetyl and Butyryl cholinesterase inhibitors

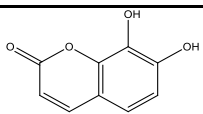
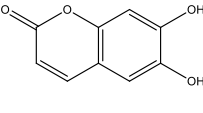
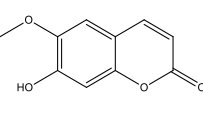
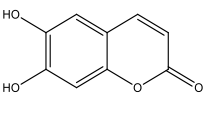
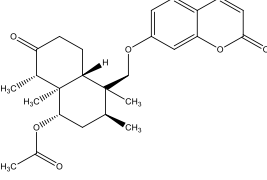
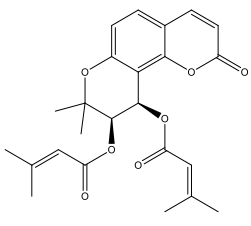
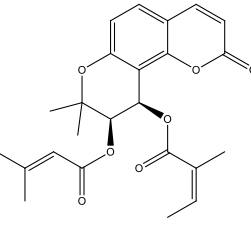
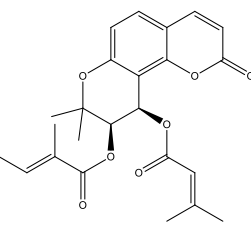
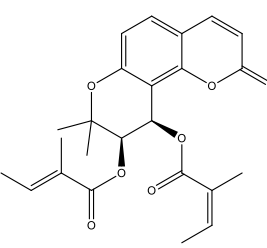
Number	Name	Structure	Plant source	IC ₅₀ or % inh (conc.)		Reference
				AChE	BChE	
1.	Pteryxin		<i>Mutellina purpurea</i>	-	12.96 ± 0.70 mg/ml (IC ₅₀)	[86]
2.	psoralen		<i>Caryopteris odorata</i>	-	312.53±0.28 µM (IC ₅₀)	[87]
3.	methoxsalen		<i>Caryopteris odorata</i>	-	203.72±0.27 µM (IC ₅₀)	[87]
4.	isoimperatorin		<i>Caryopteris odorata</i>	-	263.52±0.12 µM (IC ₅₀)	[87]
			<i>Angelica archangelica</i>	>250 µM (IC ₅₀)	>250 µM (IC ₅₀)	[88]
5.	oxypeucedanin		<i>Caryopteris odorata</i>	-	250.11±0.36 µM (IC ₅₀)	[87]
			<i>Angelica purpurascens</i>	19.3±1.87% (20 µg/mL)	36.89±1.23% (20 µg/mL)	[89]
6.	bergamottin		<i>Caryopteris odorata</i>	-	234.42±0.58 µM (IC ₅₀)	[87]
7.	7-Isopentenylxy coumarin		<i>Semi synthetic</i>	12.51 ± 2.83 % (100 µM)	11.77 ± 0.89 µM (IC ₅₀)	[90]

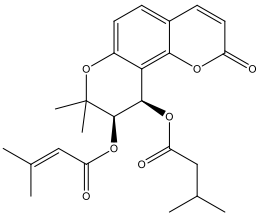
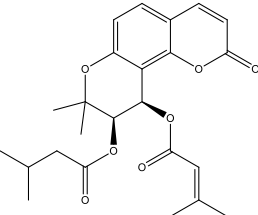
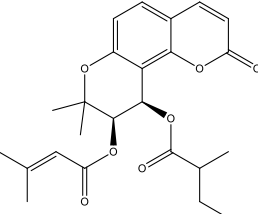
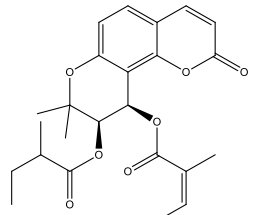
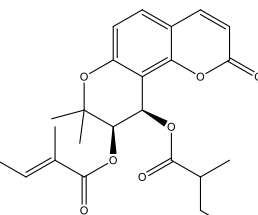
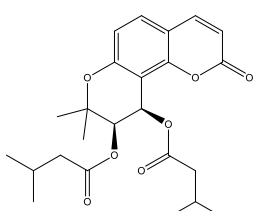
8.	Auraptene		<i>Semi synthetic</i>	6.75 ± 2.20 % (100 μ M)	12.68 ± 2.23 μ M (IC ₅₀)	[90]
9.	Umbelliprenin		<i>Semi synthetic</i>	-	26.66 ± 1.11 % (100 μ M)	[90]
			<i>Heptaptera cili- cica</i>	5.86 ± 0.030 μ M (IC ₅₀)	1.10 ± 0.190 μ M (IC ₅₀)	[91]
10.	7-Isopentenyl- 4-methylcoumarin		<i>Semi synthetic</i>	14.92 ± 0.60 % (100 μ M)	8.18 ± 0.74 μ M (IC ₅₀)	[90]
11.	7-Isopen- tenyloxy- coumarin- 3-carboxylic acid		<i>Semi synthetic</i>	-	10.45 ± 2.92 % (100 μ M)	[90]
12.	3-Acetyl-7-isopen- tenyloxy- coumarin		<i>Semi synthetic</i>	31.14 ± 2.59 % (100 μ M)	11.75 ± 1.82 μ M (IC ₅₀)	[90]
13.	3-Acetyl-7- geranyloxy- couma- rin		<i>Semi synthetic</i>	-	16.29 ± 2.03 % (100 μ M)	[90]
14.	3-Acetyl-7-farne- syloxy- coumarin		<i>Semi synthetic</i>	6.14 ± 2.11 % (100 μ M)	17.36 ± 2.71 % (100 μ M)	[90]
15.	3-Chloro-7-isopen- tenyloxy-4-methyl- coumarin		<i>Semi synthetic</i>	11.47 ± 1.73 % (100 μ M)	15.56 ± 2.85 % (100 μ M)	[90]
16.	3-Chloro-7- geranyloxy-4- methylcoumarin		<i>Semi synthetic</i>	7.03 ± 2.08 % (100 μ M)	16.64 ± 2.64 % (100 μ M)	[90]
17.	7-Geranyloxy-4- methylcoumarin		<i>Semi synthetic</i>	-	51.04 ± 1.88 % (100 μ M)	[90]
18.	3-Chloro-7-farne- syloxy-4-methyl- coumarin		<i>Semi synthetic</i>	17.23 ± 2.08 % (100 μ M)	23.77 ± 2.19 % (100 μ M)	[90]
19.	7-Farnesyloxy-4- methylcoumarin		<i>Semi synthetic</i>	-	23.82 ± 2.41 % (100 μ M)	[90]
20.	umbelliprenin- 10',11'-monoepox- ide		<i>Heptaptera cili- cica</i>	> 100 μ M	$12.59 \pm$ 0.021 μ M (IC ₅₀)	[91]
21.	6,7-Diisopen- tenyloxy- coumarin		<i>Semi synthetic</i>	40.39 ± 3.81 % (100 μ M)	-	[90]

22.	6,7-Di-geranyloxycoumarin		<i>Semi synthetic</i>	$11.70 \pm 3.99 \%$ (100 μM)	$7.01 \pm 2.73 \%$ (100 μM)	[90]
23.	6,7-Difarneyloxycoumarin		<i>Semi synthetic</i>	$21.33 \pm 0.55 \%$ (100 μM)	$21.35 \pm 1.53 \%$ (100 μM)	[90]
24.	7-Ethoxycoumarin		<i>Semi synthetic</i>	$9.76 \pm 1.92 \%$ (100 μM)	$83.65 \pm 2.39 \mu\text{M}$ (IC_{50})	[90]
25.	7-(2'-Butenyloxy)coumarin		<i>Semi synthetic</i>	$9.75 \pm 2.09 \%$ (100 μM)	$16.49 \pm 0.99 \mu\text{M}$ (IC_{50})	[90]
26.	7-Styryloxycoumarin		<i>Semi synthetic</i>	$26.72 \pm 1.93 \%$ (100 μM)	$7.01 \pm 0.28 \mu\text{M}$ (IC_{50})	[90]
27.	7-(2',2'-Dimethyl)-n propoxycoumarin		<i>Semi synthetic</i>	-	$26.77 \pm 1.35 \%$ (100 μM)	[90]
28.	7-Methoxycoumarin		<i>Semi synthetic</i>	$4.32 \pm 1.01 \%$ (100 μM)	$46.53 \pm 2.39 \%$ (100 μM)	[90]
29.	7-(2'-Pentinyloxy) coumarin		<i>Semi synthetic</i>	$12.01 \pm 1.64 \%$ (100 μM)	$18.48 \pm 0.73 \mu\text{M}$ (IC_{50})	[90]
30.	7-(3'-Methyl)-n butyloxy) coumarin		<i>Semi synthetic</i>	$8.22 \pm 0.88 \%$ (100 μM)	$23.32 \pm 0.57 \mu\text{M}$ (IC_{50})	[90]
31.	7-Allyloxycoumarin		<i>Semi synthetic</i>	$11.21 \pm 2.37 \%$ (100 μM)	$43.31 \pm 3.63 \mu\text{M}$ (IC_{50})	[90]
32.	7-n Propoxycoumarin		<i>Semi synthetic</i>	$11.40 \pm 1.20 \%$ (100 μM)	$39.89 \pm 3.90 \mu\text{M}$ (IC_{50})	[90]
33.	Imperatorin		<i>Angelica Officinalis</i>	$46.11 \pm 0.92 \%$ (100 $\mu\text{g/mL}$)	$83.9 \pm 80.99 \%$ (100 $\mu\text{g/mL}$)	[92]
34.	phellopterin		<i>Angelica archangelica</i>	$>250 \mu\text{M}$ (IC_{50})	$>250 \mu\text{M}$ (IC_{50})	[88]

35.	Xanthotoxin		<i>Angelica archangelica</i>	$156 \pm 15 \mu\text{M}$ (IC ₅₀)	$14.4 \pm 3.2 \mu\text{M}$ (IC ₅₀)	[88]
36.	Bergapten		<i>Angelica officinalis</i>	$66.08 \pm 2.88 \%$ (100 $\mu\text{g/mL}$)	$88.0 \pm 40.83 \%$ (100 $\mu\text{g/mL}$)	[92]
			<i>Angelica purpurascens</i>	$18.98 \pm 2.98 \%$ (20 $\mu\text{g/mL}$)	$31.00 \pm 3.0 \%$ (20 $\mu\text{g/mL}$)	[89]
			<i>Angelica archangelica</i>	$>250 \mu\text{M}$ (IC ₅₀)	$>250 \mu\text{M}$ (IC ₅₀)	[88]
37.	isopimpinelin		<i>Angelica officinalis</i>	$32.65 \pm 6.10 \%$ (25 $\mu\text{g/mL}$)	$86.69 \pm 2.56 \%$ (25 $\mu\text{g/mL}$)	[92]
38.	Pimpinellin		<i>Angelica archangelica</i>	$>250 \mu\text{M}$ (IC ₅₀)	$>250 \mu\text{M}$ (IC ₅₀)	[88]
			<i>Leiotulus dasyanthus</i>	$18.98 \pm 2.98 \%$ (20 $\mu\text{g/mL}$)	$31.00 \pm 3.02 \%$ (20 $\mu\text{g/mL}$)	[45]
39.	heraclenol-2'-O-angelate		<i>Angelica archangelica</i>	$>1000 \mu\text{M}$ (IC ₅₀)	$7.5 \pm 1.8 \mu\text{M}$ (IC ₅₀)	[88]

40.	byakangelicin-2'-O-angelate		<i>Angelica archangelica</i>	>1000 μM (IC_{50})	>1000 μM (IC_{50})	[88]
41.	byakangelicin-2'-O-isovalerate		<i>Angelica archangelica</i>	>1000 μM (IC_{50})	>1000 μM (IC_{50})	[88]
			<i>Angelica archangelica</i>	>250 μM (IC_{50})	>250 μM (IC_{50})	[88]
42.	Umbelliferone		<i>Leiotulus dasyanthus</i>	23.54 ± 1.29 % (20 $\mu\text{g/mL}$)	66.55 ± 2.61 % (20 $\mu\text{g/mL}$)	[45]
			<i>Leiotulus dasyanthus</i>	61.09 ± 4.46 % (20 $\mu\text{g/mL}$)	40.99 ± 5.61 % (20 $\mu\text{g/mL}$)	[45]
43.	osthol		<i>Angelica archangelica</i>	>250 μM (IC_{50})	>250 μM (IC_{50})	[88]
44.	conferone		<i>Heptaptera ciliatica</i>	3.31 ± 0.014 μM (IC_{50})	9.31 ± 0.280 μM (IC_{50})	[91]
45.	mogoltacin		<i>Heptaptera ciliatica</i>	1.95 ± 0.050 μM (IC_{50})	9.74 ± 0.003 μM (IC_{50})	[91]
46.	feselol		<i>Heptaptera ciliatica</i>	1.26 ± 0.010 μM (IC_{50})	9.98 ± 0.240 μM (IC_{50})	[91]

47.	Daphnetin		<i>Portulaca oleracea</i>	72.16 ± 0.28 µM (IC ₅₀)	-	[29]
48.	Esculetin		<i>Portulaca oleracea</i>	71.50 ± 0.39 µM (IC ₅₀)	-	[29]
49.	Scopoletin		<i>Croton oligandrus</i>	-	79.2±0.26 µM (IC ₅₀)	[72]
			<i>Argyreia speciosa</i>	5.34 µM (IC ₅₀)	9.11 µM (IC ₅₀)	[93]
50.	6,7-dihydroxycoumarin		<i>Bassia indica</i>	3.6±0.07 µg/mL (IC ₅₀)	-	[34]
51.	Kamonol acetate		<i>Ferula pseudalliacea</i>	63.9 µM (IC ₅₀)	-	[94]
52.	3',4'-diseneciylkhellactone		<i>Peucedanum japonicum</i>	21.3±7.69 µM (IC ₅₀)	10.7±0.060 µM (IC ₅₀)	[95]
53.	seneciyl4'-angeloyl-khellactone		<i>Peucedanum japonicum</i>	>40 µM (IC ₅₀)	7.20±0.79 µM (IC ₅₀)	[95]
54.	calipteryxin		<i>Peucedanum japonicum</i>	25.6±4.50 µM (IC ₅₀)	>40 µM (IC ₅₀)	[95]
55.	Anomalin		<i>Peucedanum japonicum</i>	17.9±5.59 µM (IC ₅₀)	>40 µM (IC ₅₀)	[95]

56.	3'-senecieryl-4'-isovalerylkhellactone		<i>Peucedanum japonicum</i>	31.6±4.40 µM (IC ₅₀)	>40 µM (IC ₅₀)	[95]
57.	3'-isovaleryl-4'-senecierylkhellactone		<i>Peucedanum japonicum</i>	36.1±0.66 µM (IC ₅₀)	12.5±2.82 µM (IC ₅₀)	[95]
58.	3'-senecieryl-4'-(2-methylbutyryl)khellactone		<i>Peucedanum japonicum</i>	>40 µM (IC ₅₀)	10.2±2.25 µM (IC ₅₀)	[95]
59.	3'-isovaleryl-4'-angeloylkhellactone		<i>Peucedanum japonicum</i>	29.0±1.15 µM (IC ₅₀)	>40 µM (IC ₅₀)	[95]
60.	3'-angeloyl-4'-(2-methylbutyryl)khellactone		<i>Peucedanum japonicum</i>	9.28±0.094 µM (IC ₅₀)	>40 µM (IC ₅₀)	[95]
61.	3',4'-diisovalerylkhellactone		<i>Peucedanum japonicum</i>	28.1±0.33 µM (IC ₅₀)	>40 µM (IC ₅₀)	[95]

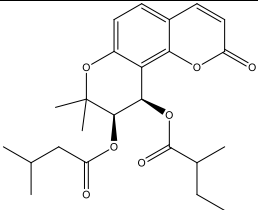
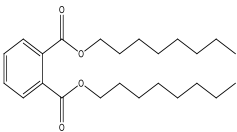
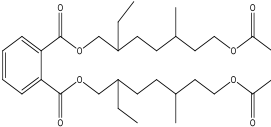
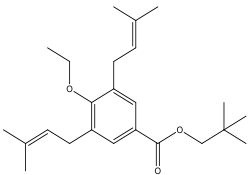
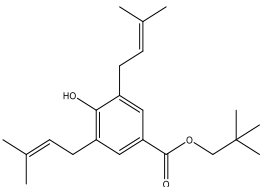
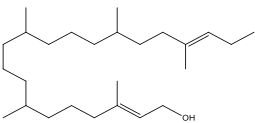
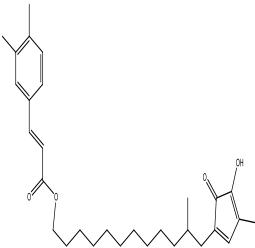
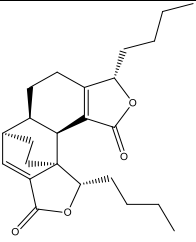
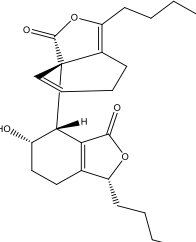
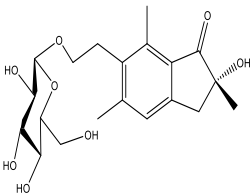
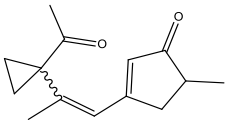
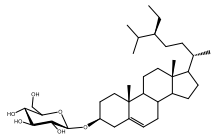
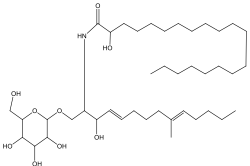
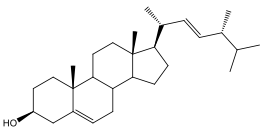
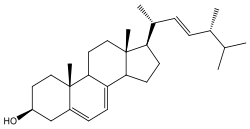
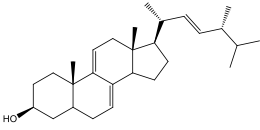
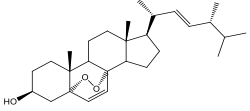
62.	3'-isovaleryl-4'-(2-methyl-butyryl)khellactone		<i>Peucedanum japonicum</i>	10.0±0.48 µM (IC ₅₀)	>40 µM (IC ₅₀)	[95]
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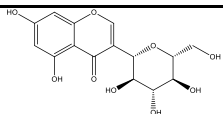
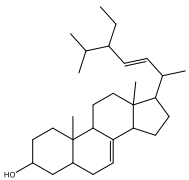
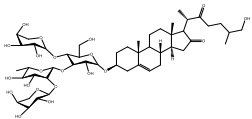
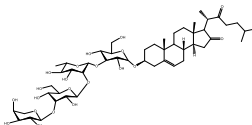
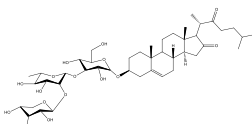
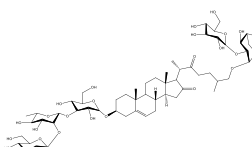
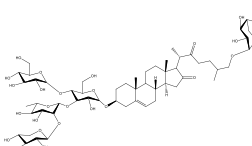
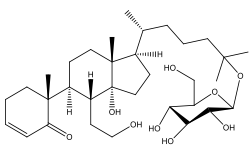
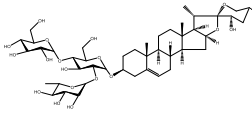
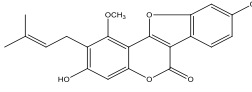
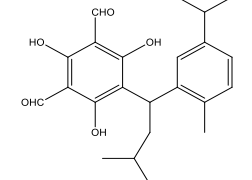
Table S4: Other Acetyl and Butyryl cholinesterase inhibitors

Number	Name	Structure	Plant source	IC ₅₀ or %inh. (conc.)		Reference
				AChE	BChE	
1.	dioctyl phthalate		<i>Lonicera quinquelocularis</i>	8.74 ± 0.07 mg/mL (IC ₅₀)	20.12 ± 0.079 mg/mL (IC ₅₀)	[96]
2.	Bis (7-acetoxy-2-ethyl-5-methylheptyl) phthalate		<i>Lonicera quinquelocularis</i>	1.65 ± 0.03 mg/mL (IC ₅₀)	5.98 ± 0.079 mg/mL (IC ₅₀)	[96]
3.	Neopentyl-4-ethoxy-3,5-bis [3-methyl-2-butenyl] benzoate		<i>Lonicera quinquelocularis</i>	5.27 ± 0.04 mg/mL (IC ₅₀)	14.76 ± 0.087 mg/mL (IC ₅₀)	[96]
4.	Neopentyl-4-hydroxy-3,5-bis [3-methyl-2-butenyl] benzoate		<i>Lonicera quinquelocularis</i>	3.43 ± 0.02 mg/mL (IC ₅₀)	9.84 ± 0.037 mg/mL (IC ₅₀)	[96]
5.	eluptol		<i>Pycnanthus angolensis</i>	22.26 µg/ml (IC ₅₀)	34.61 µg/ml (IC ₅₀)	[97]
6.	omifoate A		<i>Pycnanthus angolensis</i>	6.51 µg/ml (IC ₅₀)	9.07 µg/ml (IC ₅₀)	[97]

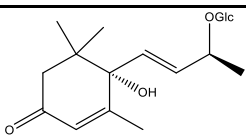
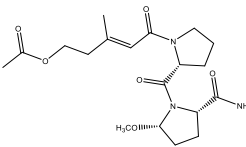
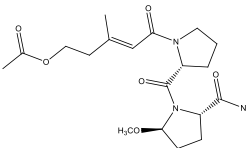
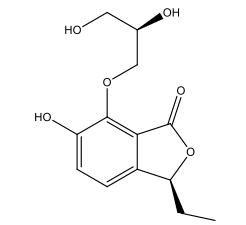
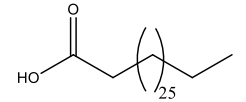
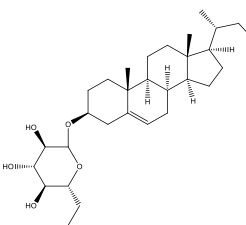
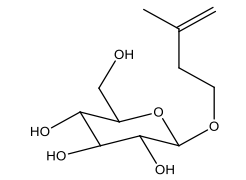
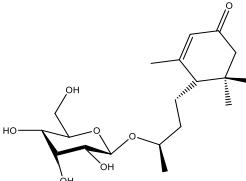
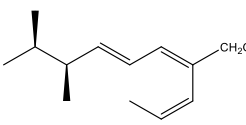
7.	Chuanxiongdiolide A		<i>Ligusticum chuanxiong</i>	-	63.0% (50 μ M)	[98]
8.	Chuanxiongdiolide B		<i>Ligusticum chuanxiong</i>	-	21.7% (50 μ M)	[98]
9.	(-)-Pteroside N		<i>Pteridium aquilinum</i>	7.39 \pm 0.99 μ M (IC ₅₀)	4.47 \pm 0.29 μ M (IC ₅₀)	[99]
10.	pterosinone		<i>Pteridium aquilinum</i>	72.9 \pm 0.73 μ M (IC ₅₀)	87.7 \pm 1.6 μ M (IC ₅₀)	[99]
11.	β -Sitosterol-3-O- β -D-glucoside		<i>Thunbergia erecta</i>	75.72 \pm 4.33 ng/mL (IC ₅₀)	-	[47]
12.	Hysteroside		<i>Hysterangium inflatum</i>	35.63 \pm 0.46% (100 μ g/mL)	45.37 \pm 0.81% (100 μ g/mL)	[100]
13.	Brassicasterol		<i>Hysterangium inflatum</i>	21.69 \pm 0.55% (100 μ g/mL)	30.93 \pm 0.95% (100 μ g/mL)	[100]
14.	Ergosterol		<i>Hysterangium inflatum</i>	20.66 \pm 0.98% (100 μ g/mL)	24.74 \pm 1.05% (100 μ g/mL)	[100]
15.	Ergosterol D		<i>Hysterangium inflatum</i>	28.76 \pm 0.54% (100 μ g/mL)	39.21 \pm 0.86% (100 μ g/mL)	[100]
16.	Ergosterol peroxide		<i>Hysterangium inflatum</i>	13.61 \pm 0.42% (100 μ g/mL)	25.57 \pm 1.20% (100 μ g/mL)	[100]

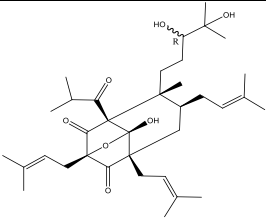
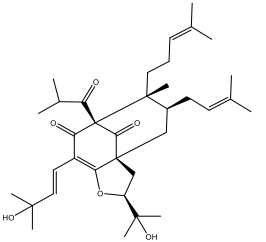
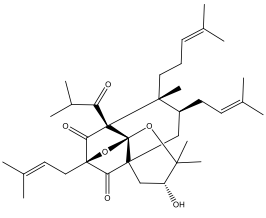
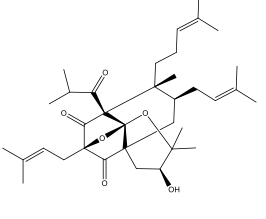
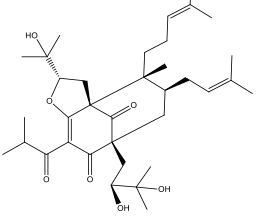
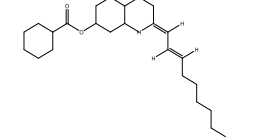
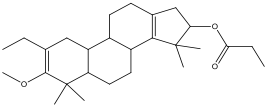
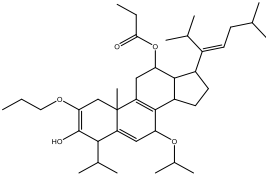
17.	Docosanoic acid		<i>Grewia optiva</i>	130 µg/mL (IC ₅₀)	130 µg/mL (IC ₅₀)	[30]
18.	Methanetriol mono formate		<i>Grewia optiva</i>	75 µg/mL (IC ₅₀)	75 µg/mL (IC ₅₀)	[30]
19.	2,2'-(1,4-phenylene)bis(3-methylbutanoic acid)		<i>Grewia optiva</i>	55 µg/mL (IC ₅₀)	60 µg/mL (IC ₅₀)	[30]
20.	Agelarin A		<i>Suberea clavata</i>	0.19±0.2	-	[101]
21.	11,17-dideoxyfistularin		<i>Suberea clavata</i>	10±0.3	-	[101]
22.	11-hydroxyaerotherionin		<i>Suberea clavata</i>	10±0.3	-	[101]
23.	Geddic acid		<i>Croton oligandrus</i>	-	69.2±0.24 µM (IC ₅₀)	[72]
			<i>Croton oligandrus</i>	-	36.3±0.92 µM (IC ₅₀)	[72]
24.	β-sitosterol		<i>Bassia indica</i>	55.8±3.8 µg/mL (IC ₅₀)	-	[34]
			<i>Kadsura coccinea</i>	67.37±1.28 µM (IC ₅₀)	-	[40]
			<i>Helichrysum plicatum</i>	2.59 µM (IC ₅₀)	2.18 µM (IC ₅₀)	[48]
25.	Stigmastane-3,6-dione		<i>Croton oligandrus</i>	-	85.4±0.76 µM (IC ₅₀)	[72]
26.	3-(R)-acetyl-1-(3',4'-dihydroxyphenyl)-7-(4''-hydroxy-3''-methoxyphenyl)-heptane		<i>Carya illinoensis</i>	247.64±59.36 µg/mL (IC ₅₀)	-	[84]
27.	11-Oxo-1,17-epoxy-7-(2-hydroxyphenyl)-13-(16-methoxyphenyl)-heptane		<i>Carya illinoensis</i>	330.60±25.89 µg/mL (IC ₅₀)	-	[84]
28.	Eloundemnoside		<i>Celtis adolphifridgerici</i>	-	66.6±0.92 µM (IC ₅₀)	[33]

29.	Heptacosanoic acid		<i>Celtis adolphi-friderici</i>	-	45.2±0.73 µM (IC ₅₀)	[33]
30.	Glycerol-1-octadecanoate		<i>Celtis adolphi-friderici</i>	-	61.1±0.51 µM (IC ₅₀)	[33]
31.	thymidine		<i>Bassia indica</i>	45.7±0.57 µg/mL (IC ₅₀)	-	[34]
32.	Stigmastadienone		<i>Isodon rugosus</i>	13.52 µg/mL (IC ₅₀)	11.53 µg/mL (IC ₅₀)	[102]
33.	Cremaphenanthrene F		<i>Cremastra appendiculata</i>	>200 µM (IC ₅₀)	14.62±2.15 µM (IC ₅₀)	[103]
34.	Cremaphenanthrene G		<i>Cremastra appendiculata</i>	>200 µM (IC ₅₀)	79.56±0.78 µM (IC ₅₀)	[103]
35.	2,3,4-trimethoxy-7,8-methylenedioxyphenanthrene		<i>Dioscorea communis</i>	11.30±0.34% (200 µg/mL)	37.51±2.97% (200 µg/mL)	[104]
36.	2,4-dimethoxy-7,8-methylenedioxy-3-phenanthrenol		<i>Dioscorea communis</i>	42.53±0.72% (200 µg/mL)	11.40±0.24 µg/mL (IC ₅₀)	[104]
37.	2,4,8-trimethoxy-3,7-phenanthrenediol		<i>Dioscorea communis</i>	69.41±2.46 µg/mL (IC ₅₀)	14.60±0.56 µg/mL (IC ₅₀)	[104]
38.	Oleraciamide E		<i>Portulaca oleracea</i>	52.43±0.33 µM (IC ₅₀)	-	[105]
39.	Galactomannan II		<i>Ganoderma adspersum</i>	36.71±0.94 µg/mL (IC ₅₀)	40.18±0.26 µg/mL (IC ₅₀)	[106]

40.	Maclobin		<i>Macrolobium latifolium</i>	0.80 μ M (IC ₅₀)	-	[107]
41.	Spinasterol		<i>Acacia auriculiformis</i>	44.19 \pm 2.59 μ g/mL (IC ₅₀)	-	[108]
42.	Seladelicatulasmine A		<i>Selaginella delicatula</i>	0.31 \pm 0.060 μ M (IC ₅₀)	0.37 \pm 0.145 μ M (IC ₅₀)	[109]
43.	Seladelicatulasmine B		<i>Selaginella delicatula</i>	0.09 \pm 0.014 μ M (IC ₅₀)	2.01 \pm 0.005 μ M (IC ₅₀)	[109]
44.	Seladelicatulasmine C		<i>Selaginella delicatula</i>	5.86 \pm 1.213 μ M (IC ₅₀)	20.65 \pm 3.376 μ M (IC ₅₀)	[109]
45.	Seladelicatulasmine D		<i>Selaginella delicatula</i>	9.79 \pm 1.738 μ M (IC ₅₀)	17.99 \pm 1.557 μ M (IC ₅₀)	[109]
46.	Seladelicatulasmine E		<i>Selaginella delicatula</i>	0.04 \pm 0.017 μ M (IC ₅₀)	1.68 \pm 0.080 μ M (IC ₅₀)	[109]
47.	Seladelicatulasmine F		<i>Selaginella delicatula</i>	3.26 \pm 0.348 μ M (IC ₅₀)	0.65 \pm 0.004 μ M (IC ₅₀)	[109]
48.	Seladelicatulasmine G		<i>Selaginella delicatula</i>	6.98 \pm 0.936 μ M (IC ₅₀)	2.52 \pm 0.003 μ M (IC ₅₀)	[109]
49.	Glycyrol		<i>Glycyrrhiza uralensis</i>	14.77 \pm 0.19 μ M (IC ₅₀)	7.22 \pm 0.37 μ M (IC ₅₀)	[80]
50.	Eucalyprobusal F		<i>Eucalyptus robusta</i>	3.22 \pm 0.36 μ M (IC ₅₀)	-	[110]

51.	Eucalyprobusone C		<i>Eucalyptus robusta</i>	3.82±0.22 µM (IC ₅₀)	-	[110]
52.	Eucalyprobusone D		<i>Eucalyptus robusta</i>	36.22±2.29 µM (IC ₅₀)	-	[110]
53.	Dipolynaphthalene B		<i>Marasmius berte-roi</i>	42.74±0.93% (50 µg/mL)	-	[111]
54.	Naphthone C		<i>Marasmius berte-roi</i>	44.63±0.52% (50 µg/mL)	-	[111]
55.	Daldinone C		<i>Marasmius berte-roi</i>	39.50±2.14% (50 µg/mL)	-	[111]
56.	8-methoxynaphthalene-1,7-diol		<i>Marasmius berte-roi</i>	51.49±0.32% (50 µg/mL)	-	[111]
57.	Goodyschle A		<i>Goodyera schlehtendalana</i>	78.52±6.43 µM (IC ₅₀)	6.88±1.63 µM (IC ₅₀)	[112]
58.	(3S)-hydroxy-3',4'-dimethoxy-L-phenylalanine		<i>Leucophyllum ambiguum</i>	1 nM (IC ₅₀)	-	[78]
59.	Aryl 2-benzofuran lakoochin A		<i>Garcinia fusca</i>	27.22±0.40 µM (IC ₅₀)	13.65±0.05 µM (IC ₅₀)	[67]

60.	(6S,9R)- roseoside		<i>Kadsura coccinea</i>	70.16±3.00 μM (IC ₅₀)	-	[40]
61.	sinulariapeptide A		<i>Cochliobolus Lunatus</i> SCSIO41401	1.8±0.12 μM (IC ₅₀)	-	[113]
62.	sinulariapeptide B		<i>Cochliobolus Lunatus</i> SCSIO41401	1.3±0.11 μM (IC ₅₀)	-	[113]
63.	phthalide glycerol ether		<i>Cochliobolus Lunatus</i> SCSIO41401	2.5±0.21 μM (IC ₅₀)	-	[113]
64.	nonacosanoic acid		<i>Helichrysum plicatum</i>	2.58 μM (IC ₅₀)	3.56 μM (IC ₅₀)	[48]
65.	β-sitosterol-3-O-β-D-glucopyranoside		<i>Helichrysum plicatum</i>	1.72 μM (IC ₅₀)	1.09 μM (IC ₅₀)	[48]
66.	3-methylbut-3-en-1-ol-O-β-D-glucopyranoside		<i>Cupressus macrocarpa</i>	144.31 μg/mL (IC ₅₀)	-	[41]
67.	blumenol-C-glucoside		<i>Cupressus macrocarpa</i>	263.68 μg/mL (IC ₅₀)	-	[41]
68.	Talaromycin A		<i>Talaromyces aurantiacus</i>	12.63 μM (IC ₅₀)	-	[114]

69.	hyperfol C		<i>Hypericum perforatum</i>	37.51 ± 1.52 μM (IC_{50})	-	[115]
70.	hyperfol F		<i>Hypericum perforatum</i>	20.32 ± 0.68 μM (IC_{50})	-	[115]
71.	hyphenrone T		<i>Hypericum perforatum</i>	45.39 ± 1.71 μM (IC_{50})	-	[115]
72.	Hyphenrone U		<i>Hypericum perforatum</i>	47.23 ± 2.31 μM (IC_{50})	-	[115]
73.	Uralione K		<i>Hypericum perforatum</i>	27.37 ± 1.21 μM (IC_{50})	-	[115]
74.	cassioate D		<i>Cassia fistula</i>	17.8 ± 0.32 μM (IC_{50})	38.23 ± 0.14 μM (IC_{50})	[116]
75.	cassioate E		<i>Cassia fistula</i>	10.26 ± 0.44 μM (IC_{50})	14.03 ± 0.21 μM (IC_{50})	[116]
76.	cassioate F		<i>Cassia fistula</i>	4.20 ± 0.01 μM (IC_{50})	7.59 ± 0.04 μM (IC_{50})	[116]