

Table S4. Subgroup analyses for effects of anthocyanins and main anthocyanin in the test foods on HDL-C

Subgroup	Anthocyanin groups	n	MD [95% CI]	I ²	p			
					Heterogeneity ^a	Within-group ^b	Intra-group ^c	
1. Main anthocyanin to total anthocyanin content								
≥ 50%	Cyanidin-based	2	0.01 [0.08, 0.09]	0	0.82	0.90		
	Delphinidin-based	8	0.09 [0.02, 0.17]	72	0.0009	0.008		
	Subtotal	10	0.08 [0.01, 0.15]	73	0.00001	0.03	0.13	
	< 50%	Delphinidin-based	2	0.18 [-0.12, 0.48]	93	0.0002	0.24	
		Malvidin-based	4	0.08 [-0.01, 0.17]	0	0.41	0.08	
		Subtotal	7	0.10 [-0.03, 0.23]	81	< 0.0001	0.13	0.49
2. Anthocyanin dosage								
≥ 160 mg	Delphinidin-based	6	0.10 [0.02, 0.19]	77	0.0006	0.02		
	Malvidin-based	2	0.09 [-0.09, 0.27]	63	0.10	0.31		
	Subtotal	8	0.10 [0.03, 0.18]	73	0.0006	0.008	0.90	
	< 160 mg	Cyanidin-based	3	0.00 [-0.07, 0.08]	0	0.97	0.92	
		Delphinidin-based	4	0.12 [-0.06, 0.30]	87	< 0.0001	0.18	
		Malvidin-based	2	0.05 [-0.11, 0.21]	0	1.00	0.54	
Subtotal		9	0.07 [-0.04, 0.18]	80	< 0.00001	0.21	0.47	
3. Types of anthocyanin source								
Purified anthocyanins	Delphinidin-based	7	0.10 [0.02, 0.18]	74	0.0007	0.01		
	Subtotal	7	0.10 [0.02, 0.18]	74	0.0007	0.01	-	
	Extract	Cyanidin-based	3	0.00 [-0.07, 0.08]	0	0.97	0.92	
		Delphinidin-based	3	0.13 [-0.11, 0.37]	89	0.0001	0.27	
		Malvidin-based	3	0.02 [-0.09, 0.13]	0	0.91	0.67	
		Subtotal	9	0.06 [-0.05, 0.17]	80	< 0.00001	0.31	0.59
4. Target population								
Prediabetes and/or type 2 diabetes	Delphinidin-based	2	0.11 [-0.13, 0.35]	87	< 0.0001	0.38		
	Subtotal	3	0.13 [-0.03, 0.33]	87	0.0004	0.11	0.63	
	Dyslipidemia	Delphinidin-based	6	0.13 [0.02, 0.23]	81	< 0.0001	0.02	
		Subtotal	6	0.13 [0.02, 0.23]	81	< 0.0001	0.02	-
	Overweight or obesity	Cyanidin-based	2	0.01 [0.08, 0.09]	0	0.82	0.90	
		Subtotal	3	0.01 [-0.08, 0.10]	0	0.97	0.87	0.90
Healthy	Malvidin-based	3	0.02 [-0.09, 0.13]	0	0.91	0.67		
	Subtotal	3	0.02 [-0.09, 0.13]	0	0.91	0.67	-	

5. Baseline HDL-C

≤ 1.4 mmol/L	Cyanidin-based	2	0.01 [-0.07, 0.09]	0	0.91	0.87	
	Delphinidin-based	5	0.13 [0.04, 0.21]	70	0.01	0.003	
	Malvidin-based	4	0.08 [-0.01, 0.17]	0	0.41	0.08	
	Subtotal	11	0.08 [0.02, 0.15]	69	0.0004	0.01	0.13
> 1.4 mmol/L	Delphinidin-based	5	0.10 [-0.06, 0.26]	88	< 0.00001	0.20	
	Subtotal	6	0.09 [-0.06, 0.23]	86	0.00001	0.24	0.40

6. Baseline BMI

≥ 25.0 kg/m ²	Cyanidin-based	3	0.00 [-0.07, 0.08]	0	0.97	0.92	
	Delphinidin-based	4	0.10 [0.02, 0.17]	32	0.22	0.01	
	Malvidin-based	3	0.12 [0.01, 0.23]	0	0.51	0.03	
	Subtotal	10	0.07 [0.02, 0.12]	22	0.24	0.006	0.13
< 25.0 kg/m ²	Delphinidin-based	5	0.09 [-0.03, 0.20]	82	0.0002	0.16	
	Subtotal	6	0.07 [-0.04, 0.18]	80	0.0001	0.19	0.39

The probabilities are based on the Cochran's Q-test (a), test for overall effect of each anthocyanin group (b), and test for subgroup differences (c). If there was the data about subgroup numbers being one or less, analysis limited to that subgroup was omitted.

BMI, body mass index; CI, confidence interval; MD, mean difference; n, sample size; HDL-C, high-density lipoprotein cholesterol.