

Table S3. Subgroup analyses for effects of anthocyanins and main anthocyanin in the test foods on LDL-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	-0.24 [-0.58, 0.11]	13	0.28	0.18			
	Delphinidin-based	8	-0.24 [-0.34, -0.14]	0	0.64	< 0.00001			
	Subtotal	10	-0.24 [-0.33, -0.14]	0	0.71	< 0.00001	0.99		
	< 50%	Delphinidin-based	2	-0.72 [-1.38, -0.04]	80	0.02	0.03		
		Malvidin-based	4	0.05 [-0.12, 0.22]	0	0.59	0.58		
		Subtotal	7	-0.19 [-0.50, 0.13]	77	0.0002	0.24	0.09	
2. Anthocyanin dosage									
≥ 160 mg	Delphinidin-based	6	-0.26 [-0.37, -0.16]	0	0.63	< 0.00001			
	Malvidin-based	2	-0.09 [-0.41, 0.23]	0	0.35	0.60			
	Subtotal	8	-0.25 [-0.35, -0.15]	0	0.62	< 0.00001	0.31		
	< 160 mg	Cyanidin-based	3	-0.20 [-0.48, 0.09]	0	0.46	0.17		
		Delphinidin-based	4	-0.39 [-0.85, 0.07]	79	0.002	0.10		
		Malvidin-based	2	0.10 [-0.10, 0.30]	0	0.73	0.33		
Subtotal		9	-0.19 [-0.43, 0.06]	70	0.0007	0.13	0.07		
3. Types of anthocyanin source									
Purified anthocyanins	Delphinidin-based	7	-0.25 [-0.35, -0.15]	0	0.63	< 0.00001			
	Subtotal	7	-0.25 [-0.35, -0.15]	0	0.63	< 0.00001	-		
	Extract	Cyanidin-based	3	-0.20 [-0.48, 0.09]	0	0.46	0.17		
		Delphinidin-based	3	-0.49 [-1.09, 0.10]	81	0.006	0.10		
		Malvidin-based	3	0.04 [-0.14, 0.22]	0	0.40	0.66		
		Subtotal	9	-0.20 [-0.45, 0.05]	70	0.0007	0.11	0.12	
4. Target population									
Prediabetes and/or type 2 diabetes	Delphinidin-based	2	-0.23 [-0.41, -0.06]	0	0.65	0.009			
	Subtotal	3	-0.19 [-0.39, 0.01]	0	0.43	0.02	0.22		
	Dyslipidemia	Delphinidin-based	6	-0.36 [-0.60, -0.11]	66	0.01	0.005		
		Subtotal	6	-0.36 [-0.60, -0.11]	66	0.01	0.005	-	
		Overweight or obesity	Cyanidin-based	2	-0.24 [-0.58, 0.11]	0	0.28	0.18	
			Subtotal	3	-0.18 [-0.45, 0.09]	0	0.42	0.20	0.46
Healthy	Malvidin-based	3	0.04 [-0.14, 0.22]	0	0.40	0.66			
	Subtotal	3	0.04 [-0.14, 0.22]	0	0.40	0.66	-		

5. Baseline LDL-C

> 3.6 mmol/L	Delphinidin-based	4	-0.35 [-0.81, 0.11]	80	0.002	0.13	
	Subtotal	4	-0.35 [-0.81, 0.11]	80	0.002	0.13	-
≤ 3.6 mmol/L	Cyanidin-based	3	-0.20 [-0.48, 0.09]	0	0.46	0.17	
	Delphinidin-based	6	-0.27 [-0.38, 0.17]	0	0.59	< 0.00001	
	Malvidin-based	4	0.05 [-0.12, 0.22]	0	0.59	0.58	
	Subtotal	13	-0.16 [-0.27, -0.05]	30	0.14	0.005	0.007

6. Baseline BMI

≥ 25.0 kg/m ²	Cyanidin-based	3	-0.20 [-0.48, 0.09]	0	0.46	0.17	
	Delphinidin-based	4	-0.29 [-0.43, -0.14]	0	0.36	< 0.0001	
	Malvidin-based	3	0.10 [-0.08, 0.29]	0	0.93	0.28	
	Subtotal	10	-0.12 [-0.27, 0.04]	46	0.06	0.14	0.005
< 25.0 kg/m ²	Delphinidin-based	5	-0.19 [-0.33, -0.05]	0	0.86	0.006	
	Subtotal	6	-0.19 [-0.51, -0.07]	0	0.93	0.004	0.98

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; LDL-C, low-density lipoprotein cholesterol.