

Supplementary Material

Table S1. Ingredients composition of experimental diets.

Ingredient (g/kg)	Normal diet	High-fat diet	Krill oil
Soybean oil	70	70	55
krill oil	-	-	15
Lard	-	230	230
β -Cornstarch	397.49	110.62	110.62
α -(dextrinized) Cornstarch	132	36.87	36.87
Casein	200	250	250
Sucrose	100	200	200
AIN-93 mineral mixture	35	35	35
AIN-93 vitamin mixture	10	10	10
L-Cystine	3	3.75	3.75
Choline bitartrate	2.5	2.5	2.5
Cellulose	50	50	50
tert-Butylhydroquinone	0.01	0.06	0.06
Cholesterol	-	1.2	1.2
Protein	203	253.75	253.75
Carbohydrates	629.49	347.49	347.49
Fat	70	300	300

Table S2. Composition analysis of krill oil used in the study

Krill oil	Result	Unit
Astaxanthin	232.15	mg/kg
Peroxide	< 0.2	eEq/kg
Saponification	163.0	mg/KOH/g
Total phospholipids	55.06	g/100g
Fatty acid composition		%/total fatty acids
C14:0	10.51	
C16:0	25.77	
C16:1	6.15	
C18:0	0.28	
C18:1	14.2	
C18:2	1.33	
C18:3	1.59	
C20:3	1.19	
C20:4	0.73	
C20:5 (EPA)	22.89	
C22:6 (DHA)	13.83	

Table S3. Sequences of primers used for qRT-PCR.

gene name	Sequences of primers	GenBank accession number	Product size
<i>Acta2</i> -F	TAACCCTTCAGCGTTCAGC	NM_007392.3	99
<i>Acta2</i> -R	ACATAGCTGGAGCAGCGTCT	NM_007392.3	99
<i>Ccl2</i> -F	CTTCTGGGCCTGCTGTTCA	NM_011333.3	127
<i>Ccl2</i> -R	CCAGCCTACTCATTGGGATCA	NM_011333.3	127
<i>Colla1</i> -F	CCGCTGGTCAAGATGGTC	NM_007742.4	117
<i>Colla1</i> -R	CTCCAGCCTTTCCAGGTTCT	NM_007742.4	117
<i>Gsdmd</i> -F	TGTCAACCTGTCAATCAAGGA	NM_026960.4	68
<i>Gsdmd</i> -R	AGCCAAAACACTCCGGTTC	NM_026960.4	68
<i>Icam1</i> -F	GCTACCATCACCGTGATTTCG	NM_010493.3	80
<i>Icam1</i> -R	AGGTCCTTGCCTACTTGCTG	NM_010493.3	80
<i>Ifn-γ</i> -F	AGCGGCTGACTGAACTCAGATTGTAG	NM_008337.4	247
<i>Ifn-γ</i> -R	GTCACAGTTTTTCAGCTGTATAGGG	NM_008337.4	247
<i>Il-1β</i> -F	GACCTTCCAGGATGAGGACA	NM_008361.4	183
<i>Il-1β</i> -R	AGCTCATATGGGTCCGACAG	NM_008361.4	183
<i>Nox4</i> -F	TTGCCTGGAAGAACCCAAGT	NM_001285835.1	84
<i>Nox4</i> -R	TCCGCACAATAAAGGCACAA	NM_001285835.1	84
<i>Rplp0</i> -F	AGCAAAGGAAGAGTCGGAGG	NM_007475.5	83
<i>Rplp0</i> -R	GGCTGACTTGCTTGCTTTGG	NM_007475.5	83
<i>Sele</i> -F	TCAGTGGCTGCCGAAGTATT	NM_011345.2	69
<i>Sele</i> -R	TGGATCTCATGCTGGCTTCA	NM_011345.2	69

<i>Sirt3</i> -F	TCGTCCTGCAGAGCATCAT	NM_001127351.1	106
<i>Sirt3</i> -R	ACAGAGGGATATGGGCCTTC	NM_001127351.1	106
<i>Tnf-α</i> -F	TTGTCTTAATAACGCTGATTTGGT	NM_001278601.1	61
<i>Tnf-α</i> -R	GGGAGCAGAGGTTTCAGTGAT	NM_001278601.1	61

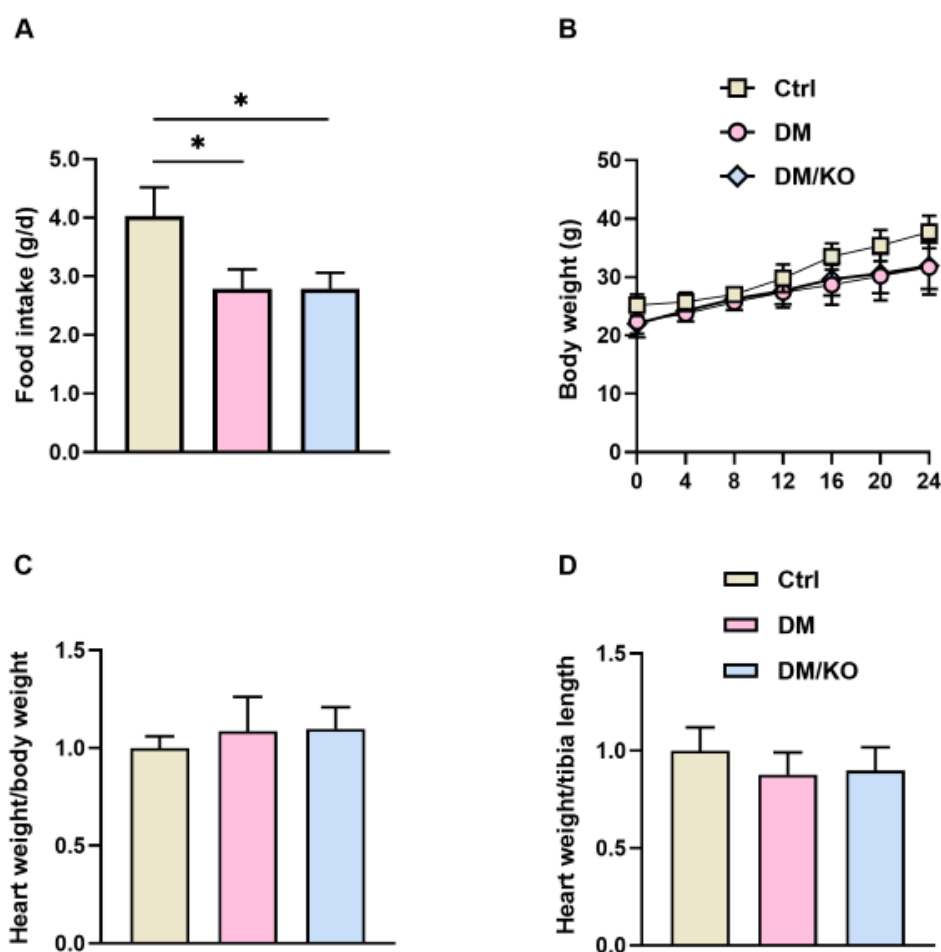


Figure S1. Basic data for animal models (A) Average food intake. (B) Body weight.

After harvesting, the hearts were weighed, with ratios of (C) heart to body weight, and (D) heart weight to tibia length calculated. For (C) and (D), the data were normalized to Ctrl, and summarized as means \pm SD. *, $P < 0.05$ vs. Ctrl; Abbreviations: Ctrl, control; DM, diabetes mellitus; KO, krill oil.