

Table S1. Fatty acid profiles of palm oil, soybean oil, linseed oil and fish oil (% total fatty acids).

Fatty acid (% total fatty acids)	Palm oil [1]	Soybean oil	Linseed oil	Fish oil
14:0	0.92	0.08	0.07	8.77
16:0	43.01	10.32	5.39	19.15
18:0	3.19	3.95	3.76	4.26
20:0	0.24	0.27	0.17	1.18
16:1n-7	0.25	0.09	0.10	11.85
18:1n-9	30.12	26.10	20.45	9.75
18:2n-6	12.10	49.65	15.52	1.54
20:4n-6	0.00	0.00	0.00	1.30
18:3n-3	0.74	4.92	53.02	0.76
20:5n-3	0.00	0.00	0.00	12.34
22:6n-3	0.00	0.00	0.00	7.30

Reference

1. Li, X.; Ji, R.; Cui, K.; Chen, Q.; Chen, Q.; Fang, W.; Mai, K.; Zhang, Y.; Xu, W.; Ai, Q., High percentage of dietary palm oil suppressed growth and antioxidant capacity and induced the inflammation by activation of TLR-NF- κ B signaling pathway in large yellow croaker (*Larimichthys crocea*). *Fish & shellfish immunology* 2019, 87, 600–608.

Table S2. Sequences of the primers for construction of transcription factor plasmids.

Primer	Sequences5'-3'
PCS2 ⁺ -HNF1 α -F	CGATTCGAATTCAAGGCCTCTCGAGATGGAGGAGAGGA TAGAGGCAGC
PCS2 ⁺ -HNF1 α -R	CTCACTATAGTTCTAGAGGCTCGAGTCACTGAGCCGTAG ACACCATCT
PCS2 ⁺ -CEBP β -F	CGATTCGAATTCAAGGCCTCTCGAGATGATGTCTGATTC CAGGGTGTC
PCS2 ⁺ -CEBP β -R	CTCACTATAGTTCTAGAGGCTCGAGCTAGATATTAGACT CCCCTGCTACTC
PCS2 ⁺ -PPAR γ -F	CGATTCGAATTCAAGGCCTCTCGAGATGCAAAACACCAG GCAGAGATT
PCS2 ⁺ -PPAR γ -R	CTCACTATAGTTCTAGAGGCTCGAGCTAATACAAGTCCT TTATGATCTCCTGC
PCS2 ⁺ -SP1-F	CGATTCGAATTCAAGGCCTCTCGAGATGACCATGGAGG CTGCTGCAGACAC
PCS2 ⁺ -SP1-R	CTCACTATAGTTCTAGAGGCTCGAGTACTCTGATTTGT GGCAGTACAAGTC
PCS2 ⁺ -RXR α -F	CGATTCGAATTCAAGGCCTCTCGAGATGCAACGAGGTC GCTCAAGC
PCS2 ⁺ -RXR α -R	CTCACTATAGTTCTAGAGGCTCGAGTCATGTCATTTGAT GAGGGGCTTCTAGC
PCS2 ⁺ -ChREB-F	CGATTCGAATTCAAGGCCTCTCGAGATGTACCAGGAGC CTGAGGCTGCGCCGG
PCS2 ⁺ -ChREB-R	CTCACTATAGTTCTAGAGGCTCGAGTCACATGGGGTGTA TGTTGTCCCGGGTGGC
PCS2 ⁺ -SREBP1-F	CGATTCGAATTCAAGGCCTCTCGAGATGAACAGCCTGT CGTTTGACG
PCS2 ⁺ -SREBP1-R	CTCACTATAGTTCTAGAGGCTCGAGGCTGTTGGTGACAG TCGTGC
PCS2 ⁺ -SREBP2-F	CGATTCGAATTCAAGGCCTCTCGAGATGGACGGCGGAG AGTACATCTC
PCS2 ⁺ -SREBP2-R	CTCACTATAGTTCTAGAGGCTCGAGGGATGCAGCGATG GTCG
PCS2 ⁺ -LXR α -F	CGATTCGAATTCAAGGCCTCTCGAGATGTCCACGCTGTC TGT
PCS2 ⁺ -LXR α -R	CTCACTATAGTTCTAGAGGCTCGAGTCACTCGTTGACAT CCCAG
PCS2 ⁺ -CREB1-F	CGATTCGAATTCAAGGCCTCTCGAGATGACCATGGAGG CTGCTGCAGAC
PCS2 ⁺ -CREB1-R	CTCACTATAGTTCTAGAGGCTCGAGTACTCTGATTTGT GGCAGTACAAG