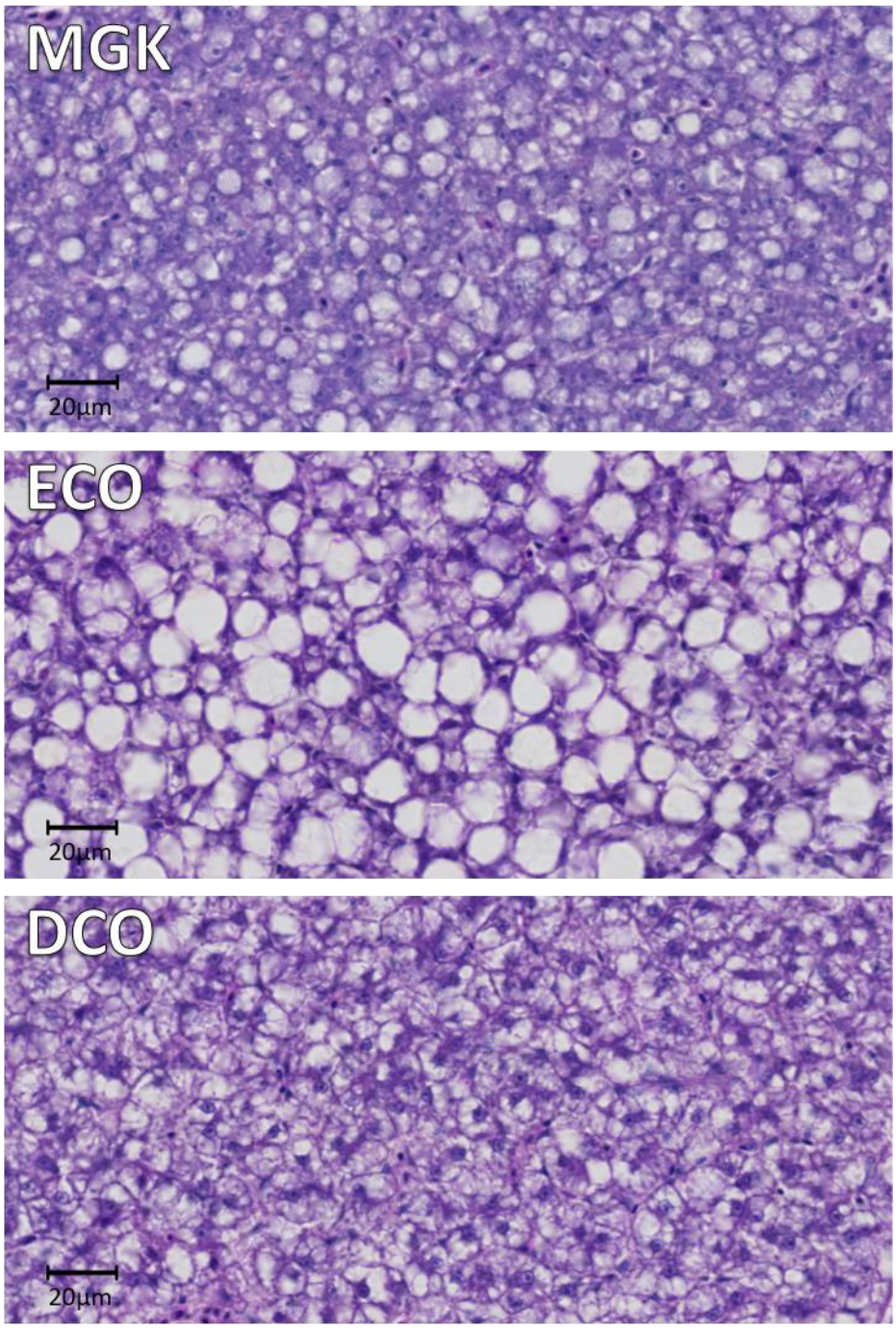
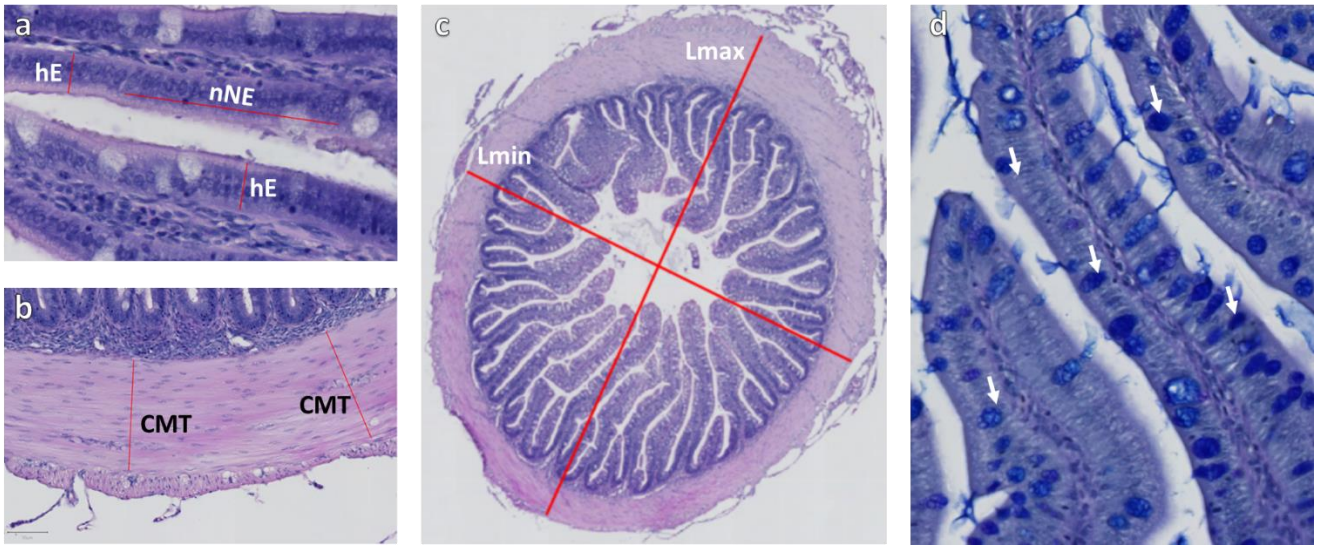


Supplementary Figure S1



Supplementary Figure S2

Supplementary Table S1. Rearing conditions for the feeding trial of Atlantic bluefin tuna (*Thunnus thynnus* L.) juveniles.

Initial age of fish (days after hatching)	41 dah
Experimental period	18 days
Tank volume (m^3)	10
Number of fish (ind/tank)	45-54
Feeding amount (g/tank/day)	"ad libitum"
Water temperature (°C)	29.3 ± 1.0
Dissolved oxygen (mg/l)	5.9 ± 0.5
Photoperiod (L:D)	14:10
Light intensity (lux)	1000
Exchange rate of sea water (% tank volume/day)	300–500%

Supplementary Table S2. Sequence, annealing temperature (Tm) and size of the fragment produced by the primer pairs used for quantitative PCR (qPCR).

Name	Sequence (5′-3′)	Amplicon size (bp)	Tm°C
elovl5	F: CCACGCTAGCATGCTGAATA	236	60
	R: ATGGCCATATGACTGCACAC		
elovl4	F: ATCCAGTTCCACGTGACCAT	199	60
	R: CCATAGAGGTGCCGTTTGTG		
fads2d6	F: CCGTGCACTGTGTGAGAAAC	152	60
	R: CAGTGTAAGCGATAAAATCAGCTG		
pparα	F: TGGTCATGGAGGTGGAAGAC	152	60
	R: ATGGATGACGAAAGGAGGGG		
pparγ	F: ACCTGACCAACATGGACTAC	118	60
	R: GAGAAAACAGGACTGTCAGC		
lxr	F: CACACTGGATCCACAACAGC	192	58
	R: ATCTCCTGCACCGACATGAT		
rxr	F: TGAGGGAAAAGGTCTACGCA	212	59
	R: TGTGATCTGATGTGGTGCCT		
srebp1	F: CCAGCTACACATGACAGGGA	153	59
	R: GCTTTGACCCTTAGAGCTGC		
srebp2	F: AGATCCAGTGAGTCGTTGGT	212	60
	R: CTACAGCCCCTTCTCCCTTC		
cptI	F: TGGAGGCTGTCCACCAGTCA	211	60
	R: TGCTGGAGATGTGGAAGTTG		
lpl	F: CCGAAAGAACCGCTGCAATA	212	59
	R: GATCCTCCTTCTCTCCGTGG		
fas	F: ATACCGTGGCAATGTAACGC	188	59
	R: GTGAGCTGTGGATGATGCTG		
aco	F: AGCGCTATGACCAGGCTATT	164	59
	R: GTACAGGGTTGGGAGGAACA		
hmgcl	F: CGTGCCAACAGAGACGAAAA	173	59
	R: GGGTGAGGACTGGGTAAGAC		
gpx1	F: TGGAGAAAGTGGATGTGAACGG	309	55
	R: GTGCTGTGGAAGCTGTATGATGG		
gpx4	F: TGGGGAATAGCATCAAGTGG	206	55
	R: CGAGAAAGGAGGGAAACAGG		
cat	F: ATGGTGTGGGACTTCTGGAG		60
	R: ATGAAACGGTAGCCATCAGG		
sod	F: TCCCAGATCACCTACATGCC	182	59
	R: CTGCGGAGAGTTGCTTGATC		
anpep	F: CCTGAGGTGGTGGAATGACT		60
	R: GGGTTCAGCTTTGTCTGCTC		
tryp	F: CCCCAACTACAACCCCTACA		60
	R: CCAGCCAGAGACAAGACACA		
alp	F: ACTCTGACAACGAGATGCCA	189	60
	R: TTCCGTCTTTTCTTGTGCCG		
amy	F: TCATGTGGAAGCTGGTTCAG		60
	R: AATATTGCCACTGCCAGTCC		
pl	F: TTCCAGGACACTCCTGTTTCTGTGC	107	59

	R: ATCCCCAGACCAAGTTTGGAGTTGA		
pla2	F: GGATGATCTGGACAGGTGCT	217	59
	R: TCTGGCAAAACACTCAACGG		
bsl1	F: CATGGATGGACACCTCTTTACTGGT	126	59
	R: AAACCAGCCTGGCCCTTCTCTTTAG		
bsl2	F:GGATGGGCACCTCTTCACATCACAG	120	59
	R: CCAGCTTGGCCCTTCTCTTTGGTAT		
ef1a	F: CCCCTGGACACAGAGACTTC	119	60
	R: GCCGTTCTTGGAGATACCAG		
bactin	F: ACCCACACAGTGCCCATCTA	155	61
	R: TCACGCACGATTTCCCTCT		

elovl5, fatty acyl elongase 5; *fads2d6*, delta-6 fatty acyl desaturase; *pparα*, peroxisome proliferator-activated receptor alpha; *pparγ*, peroxisome proliferator-activated receptor gamma; *lxr*, liver X receptor; *rxr*, retinoid X receptor; *srebp1*, sterol regulatory element-binding protein 1; *srebp2*; sterol regulatory element-binding protein 2; *fabp2*, fatty acid binding protein 2 (intestinal); *fabp4*, fatty acid binding protein 4 (adipocyte); *fabp7*, fatty acid binding protein 7 (brain-type); *cptI*, carnitine palmitoyl transferase I; *lpl*, lipoprotein lipase; *fas*; fatty acid synthase; *aco*, acyl coA oxidase; *hmgcl*; 3-hydroxy-3-methylglutaryl-CoA lyase; *gpx1*, glutathione peroxidase 1: *gpx4*, glutathione peroxidase 4; *cat*, catalase; *sod*, superoxide dismutase; *ef1α*, elongation factor 1 alpha; *bactin*, beta actin.