On the utilization of dietary glycerol in carnivorous fish - Part II: insights into lipid metabolism of rainbow trout (*Oncorhynchus mykiss*) and European seabass (*Dicentrarchus labrax*)

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Supplementary Material

Supplementary Table S1 Primer sequences and accession numbers for qPCR analysis on liver of rainbow trout (*O. mykiss*).

Trout	Forward primer (5′-3′)	Reverse primer (5′-3′)	Accession number (Genoscope, GenBank, Sigenae)	Previously reported
Reference gene				
ef1α	TCCTCTTGGTCGTTTCGCTG	ACCCGAGGGACATCCTGTG	AF498320	Song et al. 2018
Lipogenesis				
fas	GTGATGTCGAGCTTCGTGCT	CTCCAGTGTCTGACGCACCT	tcaa0001c.m.06_5.1.om.4	Song et al. 2018
dgat	CCGAAGTTACAGAAGGCTCC	CCGAAGTTACAGAAGGCTCC	LOC110537459	No
Lipolysis				
hoad	GGACAAAGTGGCACCAGCAC	GGGACGGGGTTGAAGAAGTG	tcad0001a.i.15_3.1.om	Song et al. 2018
cptb1a	GATGGCTTGACGTTCTCCT	AGATCCAGGAGAGTCCTCC	GSONMG00076843001	Song et al. 2018
cptb1b	AGGGACAGTTCGAAAATGGAG	CCAGAGAGGGAAGATGAAGA	GSONMG00076841001/GSONMG00066036001	No
Long chain PUFA biosynthesis				
Δ6-fad	AGGGTGCCTCTGCTAACTGG	TGGTGTTGGTGATGGTAGGG	AF301910	Song et al. 2018
elovl2	TGTGGTTTCCCCGTTGGATGCC	ACAGAGTGGCCATGTCCTTGT	FYV3OTN01A4WMI.s.om.10	Song et al. 2018
elovl5	GAACAGCTTCATCCATGTCC	TGACTGCACATATCGTCTGG	AY605100	Song et al. 2018

ef1α (elongation factor 1α); *fas* (fatty acid synthase); *dgat* (diglyceride acyltransferase); *hoad* (3-hydroxyacyl-CoA dehydrogenase); *cpt1a* and *cpt1b* (carnitine palmitoyltransferase I a and b, respectively); *Δ6-fad* (acyl-CoA 6-desaturase); *elovl2* and *elovl5* (elongation of very long-chain fatty acid protein 2 and 5, respectively).

Song, X., Marandel, L., Skiba-Cassy, S., Corraze, G., Dupont-Nivet, M., Quillet, E., Geurden, I., and Panserat, S. (2018). Regulation by Dietary Carbohydrates of Intermediary Metabolism in Liver and Muscle of Two Isogenic Lines of Rainbow Trout. *Frontiers in Physiology* 9. doi: https://doi.org/10.3389/fphys.2018.01579

Supplementary Table S2 Primer sequences and accession numbers for qPCR analysis on liver of European seabass (*D. labrax*).

Seabass	Forward primer (5′-3′)	Reverse primer (5′-3′)	Accession number (Genoscope, GenBank, Sigenae)	Previously reported
Reference gene				
ef1α	GCTTCGAGGAAATCACCAAG	CAACCTTCCATCCCTTGAAC	AJ866727	Castro et al. 2015
Lipogenesis				
fas	ATCCTGAAGCGTAGCCTGAA	CCAACTGGCACAGGGTACTT	MF566098.1	No
dgat	CAAGCCAACATCCGAGTTTT	GCTGATGACCCACTGTAGCA	FL486573	Castro et al. 2015
Lipolysis				
hoad	ACACTTCTGCACTGGACGTG	CTTGCTCGAGGTATGGCTTC	JQ938805.1	No
cptb1a	GTCTGCTCGTCTGTGGATGA	TTCTTTAGCCAAGCCCTTCA	KF857302.1	No
Long chain PUFA biosynthesis				
Δ6-fad	CCTTCACTGCTTTCATCCCAA	CCCAGGTGGAGGCAGAAGAA		Geay et al. 2010
elovl5	GCACGGTGGCTACAACTTCT	TGTCCATGAACTCGATGAGC		Castro et al. 2015

ef1α (elongation factor 1α); *fas* (fatty acid synthase); *hoad* (3-hydroxyacyl-CoA dehydrogenase) and C) *cpt1* (carnitine palmitoyltransferase I); *Δ6-fad* (acyl-CoA 6-desaturase); *elovl5* (elongation of very long-chain fatty acid protein 5).

Castro, C., Corraze, G., Panserat, S., and Oliva-Teles, A. (2015). Effects of fish oil replacement by a vegetable oil blend on digestibility, postprandial serum metabolite profile, lipid and glucose metabolism of European sea bass (*Dicentrarchus labrax*) juveniles. Aquaculture Nutrition 21, 592-603. doi: https://doi.org/10.1111/anu.12184

Geay, F., Santigosa I Culi, E., Corporeau, C., Boudry, P., Dreano, Y., Corcos, L., Bodin, N., Vandeputte, M., Zambonino-Infante, J.L., Mazurais, D., and Cahu, C.L. (2010). Regulation of FADS2 expression and activity in European sea bass (*Dicentrarchus labrax*, L.) fed a vegetable diet. Comparative Biochemistry and Physiology Part B: Biochemistry and Molecular Biology 156, 237-243. doi: https://doi.org/10.1016/j.cbpb.2010.03.008