

Additional file 1

tBlastn search of ACSLlike sequences in Transcriptomic contigs

tBlastn searches were performed on Transcriptome Contigs in elephant shark, little skate, small spotted catshark (<http://skatebase.org>) using as reference human ACSL protein sequences, contigs containing hits were retrieved. Ensembl database was used to retrieve annotated ACSL genes in Lamprey and Coelacanth while Pré-Ensembl database was used for Spotted Gar. Sequence sorting and profiling was done using phylogenetic analysis with partial sequences and Blastp in NCBI

	Acsl1/Acsl2/Acsl5/ Acsl6	Acsl3/Acsl4
Elephant shark	ctg60368 (f)ACSL1 ctg48116 (p) ACSL6?	ctg17226 (p)ACSL3? ctg79717 (p)ACSL3? ctg24956(p)ACSL4? ctg26023 (p)ACSL4? ctg18935(p)ACSL4? ctg34934 (p)ACSL4?
Little Skate	ctg11347 (p) ACSL1? ctg17167 (p) ACSL1? ctg82046 (p) ACSL2? ctg34321 (p) ACSL5? ctg43339 (p) ACSL5? ctg31550 (p) ACSL5?	ctg12475 (p)ACSL3? ctg14318 (f) ACSL4
Cat shark	ctg18625 (p) ACSL1? ctg94905 (p) ACSL1? ctg63419 (p)ACSL2? ctg81762 (p)ACSL6?	ctg67516 ACSL3? ctg66619ACSL4?
Lamprey	ENSPMAG00000008135 (f) ACSL1 ENSPMAG00000004625 (p) ACSL? ENSPMAG00000005099 (p) ACSL?	ENSPMAG00000005133 (p) ACSL3
Coelacanth	ENSLACG00000008655 (f) ACSL1 ENSLACG00000012732 (f) ACSL2 ENSLACG00000010845 (f) ACSL5 ENSLACG00000005834 (f) ACSL6	ENSLACG00000003984 (f) ACSL3 ENSLACG00000002977 (f) ACSL4
Spotted Gar	ENSDARP00000053749_1 (f) ACSL2 ENSDARP00000123999_1 (f) ACSL5 ENSDARP00000039916_1 (f) ACSL6	ENSDARP00000042883_1 (f) ACSL3 ENSDARP00000010373_1 (f) ACSL4

Notes: (f) Indicates full sequences (p) Indicates partial sequences

Full sequences were further used in phylogenetic analysis in figure 1 and 2.

Elephant shark

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Little skate

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Coelacanth

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Spotted Gar

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Small spotted catshark

>SSCctg18625ACSL1?

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Lamprey

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