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>Mus_musculus          ---MADSDPGERSYDNMLKMLSDLNKDLEKLLLEEMEKIS---VQATMAYDMVMRTNPTLAESMRRLEDAFLNCKEEMEK---QELLTETKRKQ----
>Homo_sapiens         ---MDADPEERNYDNMLKMLSDLNKDLEKLLLEEMEKIS---VQATMAYDMVMRTNPTLAESMRRLEDAFVNCKEEMEK---QELLHETKQRL----
>Canis_lupus         ---MADSEPGERNYDNMLKMLSDLNKDLEKLLLEEMEKIS---VQATMAYDMVMRTNPTLAESMRRLEDAFLNCKEEMEK---QELLNETKHKQ----
>Monodelphis_domestica -----XXXS---LQATMAYDMVMRTNPALADSMRRLEDAFLNCKEEMEK---QELLNETKPKQ----
>Sarcophilus_harrisii -----XXXA---VQATMAYDMVMRTNPALADSMRRLEDAFLNCKEEMEK---QELLNETKPKQ----
>Macropus_eugenii    ---QGDAKSGD-NYDNILKMLSN-----LKDLKME---NQATMAYDMVMRTNPALADSMRRLEDAFLNCKEEMEK---QELLNETKPKP----
>Ornithorhynchus_anatinus ---MAETDPGERSYD-MPKSLSDLNRDLENLLEEMEKIS---VQATMAYDMVMRTNPTLADTLRRLEGSFLDCKEEMEK---QALLQETQSAPSR--
>Gallus_gallus       ---MARQEPQERNYDNMLKMVEDLNRDLEKLLLEEIEKLT---VQATMAYDMVMRTNPDLTNSMRRLEDAFLNCKEEMEK---QEVLRRESKGEQKK--
>Taeniopygia_guttata ---MDESESQKENYNEGKMFVNFNMDMEELLDEMEKLT---VRAAMAYDYVAIQTNPGPYNAQHLEDAFLMCKEQMEK---QEVLLLEFRGEGQKK--
>Meleagris_gallopavo ---MARQEPQERNYDNMLKMIEDLNRDLEKLLLEEMEKLT---VQATMAYDMVMRTNPDLTNSMRHLEDAFLNCKEEMEK---QEVLRRESKGEQKK--
>Anolis_carolinensis ---MAKCEYERNYDNIVKQLEDLNRDLEKLLLEEMEKISIPVQATMAYDMVMRTNPELANSMRRLEDAFLTCKEEMERN---QEMLKETKGAEQRP--
>Pelodiscus_sinensis ---MAKSEPEERNYDNMVKMLEDLNRDLEKLLLEEMEKLSVAVQATMAYDMVMRTNPDLANSMRQLEDAFLNCKEEMEK---KEMLKETKGNEQKQ--
>Chelonia_mydas     ---MAKSEPRERNYDNMVKMLEDLNRDLEKLLLEEMEKLSVAVQATMAYDMVMRTNPDLANSMRRLEDAFLNCKEEMEK---QEMLKETKGTEQKQ--
>Chrysemys_picta    ---MAKSEPEERNYDNMVKMLEDLNRDLEKLLLEEMEKLSVAVQATMAYDMVMRTNPDLANSMRRLEDAFLNCKEEMEK---QEMLKETKGTEQKQ--
>Python_molurus     -----VS---VQATMAYDMVMRTNPDLANSMRRLEDAFLTCKEEMEK---QEMLKETKGAEQPK--
>Alligator_mississippiensis ---MAKSEPEERNCDNMVKMLEDLNRDLEKLLLEEMEKLSVAVQATMAYDMVMRTNPDLANSMRRLEDAFLNCKEEMEK---QEMLKETKDGGEK--
>Xenopus_tropicalis ---MAEPETSVQSSQEDVSRMLRDLNDDLENMLEKMETLS---VRTTEMAYDMVLRTPALAQSMKRLDAFFKCRREEIEKN---QEMLEETKQTKPEP--
>Latimeria_chalumnae ---MAESELCEKKHDNIIKMLCDLNRDLEKMLEDIKISGRVQATMAYDMVMRTNPDALQSMKRLDAFLNCKEEVERN---QEMLSEKGNQ----
>Danio_rerio        ---MSGGLSDVQLCEDFSSESLLQNLQHLEKMTQMEDVVS---VKLSCMTMDMVLRTSPDLSESFKSLENEFQKCKAVLCGL--TDGQEVKCHPADEEQV
>Oryzias_latipes    (4)MSDSSASSELPG-SNDDVLELNKLERMVEDTENMS---AQLTMMAYDMVALRTNPEEGASMRQLEEAYQRCRAAVFGDSAPEPEGETDSASAKP--
>Oreochromis_niloticus ---MADSSARSELPRISDDDKLEMNKELERMIEDVESMS---AHLTMMAYDMVALRTSPELGASMQKLEAYLKCRAAVCGD--PDQESQIDKYAETAVT
>Tetraodon_nigroviridis ---MS-----ELTEDLERMTEHTEKMS---LQLTMMHDLVLRASPELASSMRKLEDAYRGCRAAVCGD--PEPDKSPAAPGAQP--
>Ictalurus_punctatus ---MVDNASAGEQYEDFGRETLECSKDLERMTEQMEKIS---VNVTTMTMDMVLRTDPQLKSLKRLKNEFVQCKAVICGS--GDNLVQDRIVANQKT-
Consensus          *::: :::: :::: :::: :::: :::: :::: :::: :::: :::: :::: :::: :::: :::: :::: :::: :::: :::: :::: :::: :::: :::: :::: :::: :::: :::: ::::

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>Mus_musculus          -----
>Homo_sapiens         -----
>Canis_lupus         -----
>Monodelphis_domestica -----
>Sarcophilus_harrisii -----
>Macropus_eugenii    -----
>Ornithorhynchus_anatinus -----
>Gallus_gallus       -----E
>Taeniopygia_guttata -----E
>Meleagris_gallopavo -----E
>Anolis_carolinensis -----E
>Pelodiscus_sinensis -----E
>Chelonia_mydas     -----E
>Chrysemys_picta    -----E
>Python_molurus     -----
>Alligator_mississippiensis -----E
>Xenopus_tropicalis  EANTD
>Latimeria_chalumnae -----
>Danio_rerio        SPKTN

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>Oryzias_latipes          --TEM
>Oreochromis_niloticus   TLSQM
>Tetraodon_nigroviridis  ----D
>Ictalurus_punctatus     --TQE
Consensus
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Figure S2 Multiple alignment of SYCE3 homologues. Positions kept for phylogenetic inferences are indicated in red.