

Figure S1. ClustalW alignment of 10 EPOR amino acid sequences

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G. dobula          MTKMRSNRLKIVF-MLCLAS--VTTGGQYFESKVAQLLQDETEDIKCFVVEE-KDLTCFWE 56
P. kaznakovi     MTKMRSNRLKIVF-MLCLAF--VTTGGQYFESKVAQLLQDETEDIKCFVVEE-KDLTCFWE 56
S. gongshanensis MTKMRSNRLKIVF-MLCLAF--VTTGGQHFESKVAQLLQDETEDIKCFVEG-KDLTCFWE 56
S. nukiangensis Tsao MTKMRSNRLKIVF-MLCLAF--VTTGGQHFESKVAQLLQDETEDIKCFVEG-KDLTCFWE 56
S. prenati       MTKMRSNRLKIVF-MLCLAF--VTTGGQHFESKVAQLLQDETEDITCFVEG-KDLTCFWE 56
D. rerio         MTKMRSNRLKIVF-MLCLAF--VTTGGQHFESKVAQLLQDETEDIKCFVEG-KDLTCFWE 57
C. auratus      MTKMRSNRLKIVF-MLCLAF--VTTGGQHFESKVAQLLQDETEHIKCFVEG-KDLTCFWE 56
C. carpio       MTKM-SDRLKIVF-MLCVAF--VTTGGQHFESKVAQLLQDETEDIKCFVEL-KDLTCFWE 55
C. semilaevis    MNAHRNRAAALYALLCVCV--SVLGGKTWEEKFSIMRREDPENPKCFAEDRMNLTFCWE 58
E. lucius       MTNDHLKLLVYC-MLCCTQKIIVQGAQTFQTKVALLRHVEPNPKCFAEGRDLTFCWE 59
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G. dobula          DEEERNNSHDQYTFYSYENKNKMACAVSSLSLLASNKSVLFGILPKPPLFMTINVQVLR 116
P. kaznakovi     DEEERNNSHDQYTFYSYENKNKMACAVSSLSLLASNKSVLFSILPKPPLFTTINVQVLR 116
S. gongshanensis DEEERNNSHDQYTLTYSYENKNKMAYAVSSLSLLASNKTVLFCCLKPKPPFFTTLDVQVLH 116
S. nukiangensis Tsao DEEERNNSHDQYTLTYSYENKNKMAYAVSSLSLLASNKTVLFCCLKPKPPFFTTLDVQVLH 116
S. prenati       DEEERNNSHDQYTLTYSYENKNKMAYAVSSLSLLASNKTVLFCCLKPKPPFFTTLDVQVLH 116
D. rerio         KEDGTYNSQDNYTFYTYMENENKMDCAVSSLFLLSSNRVFFCKLPKALFFTSLDVQVLR 117
C. auratus      DEEERNNSHDQYTFYSYENKNKMACAVSSLSLLASNKTIFFCKLAKTPFFTTLDVQVHR 116
C. carpio       DEEERNNSHDQYTFYSYENKNKMACAVSSLSLLASNKTVFFCKLPKTPFFTTLDVQVFR 113
C. semilaevis    DEEETAGPVEEYFTYNYQHEDSVQCPLRSL--SSDRRXXXXXXXXXXMFVQMDIYVHR 117
E. lucius       DEEERAGSAKQYSFMYTYQENNSSECVNLTALP-AAGGRILYFCRLSQTQLFVPLDIQVFR 118
  
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FN3 super family domain (EPOR ligand binding domain)

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G. dobula          DGRMLYSRSLNAENFLDPPRNLTVSSGKEGQLNVSWLPPPKYIDDSLIYEVRYAVE 176
P. kaznakovi     DGRMLYSRSLNAENFLDPPRNLTVSSGKEGQMNVSWLPPPKYIDDSLIYEVRYAVE 176
S. gongshanensis DGRMLYSRRLNAENFLDPPRNLTVSSGKEGQLNVSWLPPPLKYMDDSMIYEVRYAVE 176
S. nukiangensis Tsao DGRMLYSRRLNAENFLDPPRNLTVSSGKEGQLNVSWLPPPLKYMDDSMIYEVRYAVE 176
S. prenati       DGRMLYSRRLNAENFLDPPRNLTVSSGKEGQLNVSWLPPPLKYMDDSMIYEVRYAVE 176
D. rerio         DGQMLYRSLNVENTILLDPPRNVTVSSGKEGQLNVSWLPPAVKYIDDSLIYEVRYAVE 177
C. auratus      DGQMLYRSLNAENFLDPPRNLTVSSGKEGQLNVSWLPPQLKYMDDSMIYEVRYAAE 176
C. carpio       DGRMLYSRSLNAENFLDPPRNLTVSSGKEGQLNVSWLPPPLKYMDDSMIYEVRYAVE 173
C. semilaevis    KGGLIHNRTLFDVDMVFLDPPANVTNVRTEKQDQLNVSWVAPKLYMDDSMYQIRYSSA 177
E. lucius       DGLLIHNRRHLHIELCFLLDPPVNLTVKRTEKQGLKASWMPPLKYLDSDSMIYEVSYVIA 178
  
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FN3 domain

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G. dobula          GSNMGKVEVIKVSTMLVLRGLQSDTRYKVVWRKPKDGVSYKGYSAWTEPVFGVTPPSDV 236
P. kaznakovi     GSNMGKVEVIKVSTMLVLRGLQSDTRYKVVWRKPKDGVSYKGYSAWTEPVFGVTPPSDV 236
S. gongshanensis GSNMGKVEVMKVSTMLVLLGLQSDTRYKVVWRKPKDGVSYKGYSAWTEPVFGVTPPSDM 236
S. nukiangensis Tsao GSNMGKVEVMKVSTRLVLLGLQSDTRYKVVWRKPKDGVSYKGYSAWTEPVFGVTPPSDM 236
S. prenati       GSNMGKVEVMKVSTMLVLLGLQSDTRYKVVWRKPKDGVSYKGYSAWTEPVFGVTPPSDV 236
D. rerio         DSHMGKVEETKASTMLVLRGLQSDTRYKVVWRKPKDGVSYKGYSSWTSPVIAVTPPGSM 237
C. auratus      GSDLGKVEVIKVSTMLVLLGLESDTRYKVVWRKPKDGVAYKGYSAWTEPVFGVTPPSDV 236
C. carpio       GSNMGKVEVIKVSTMLVLLGLQSDTRYKVVWRKPKDGVAYKGYSAWTEPVLGVTQPSDL 233
C. semilaevis    DGLETQVTESLAVTEKILTNRPGVKYEVQVRIKLDGISYDGYSAWSTGVFMETPPAEF 237
E. lucius       GTQMGQVEEVQASSEVILLGLQPGAKYSVRIKLDGVSYNGYSAWTDVPLMATLPGDL 238
  
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FN3 domain

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G. dobula          DPLIVLLALFIVLILCLLSLTGFLSQHKFLLKLLWPDIPTEHKFPGLFSVYKGFDFKEWM 296
P. kaznakovi     DPLIVLLVLFIVLILCLLSLTVFLSQHKFLLKLLWPDIPTEHKFPGLFTVYKGFDFKEWM 296
S. gongshanensis DPLIVLLVLFIVLILCLLTLTVFLSQHKFLLKLLWPDIPTEHKFPGLFTVYKGFDFKEWM 296
S. nukiangensis Tsao DPLIVLLVLFIVLILCLLTLTVFLSQHKFLLKLLWPDIPTEHKFPGLFTVYKGFDFKEWM 296
S. prenati       DPLIVLLVLFIVLILCLLTLTVFLSQHKFLLKLLWPDIPTEHKFPGLFTVYKGFDFKEWM 296
D. rerio         DPLIVLLVVFIIILILCLLSMTVILSHHKFLLKLLWPDIPTEHKFPGLFTVYKGFDFKEWM 297
C. auratus      DPLIVLLVLSIGLILCLLSLTVILSHQKFLKLLWPDIPTEHKFPGLFTVYKGFDFKEWM 296
C. carpio       DPLIMVLLVLFIVLILCLLSMTVILSHHKFLLKLLWPDIPTEHKFPGLFTVYKGFDFKEWM 293
C. semilaevis    DPLILCLTLIISFILLVFLSITILLSHRRFLTKKIWPVVPTPENKFPGLFSVYGGDFQEWL 297
E. lucius       DPLIVSLTLIISLILTLTLLSLLSHRRFLNKIWPVIPNPEKFPGLFTVYGGDFEEWL 298
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G. dobula SQNNGYMWGRSVHVYTEELPSPLEVLSEVSLT----SHGTSQREERKPAEEEEKPAEE 352
P. kaznakovi SQNNGNMWGRSVHVYTEELPSPLEVLSEVSLT----SHGTSQREERKPAEEEE----- 345
S. gongshanensis SQNNGNMWGRSVHVYTEELPSPLEVLSEVSLT----SHGTSQREERKPAEEEE----- 345
S. nukiangensis Tsao SQNNGNMWGRSVHVYTEELPSPLEVLSEVSLT----SHGTSQREERKPAEEEE----- 345
S. prenati SQNNGNMWGRSVHVYTEELPSPLEVLSEVSLT----SHGTSQREERKPAEEEE----- 345
D. rerio SQNSGSMWARSVQMYTEELPSPLEVLSEVSLT----P-----LDERKLVR----- 338
C. auratus SHNNGSMWGRSVHVYTEELPSPLEVLSEVSLT----SHDTSHREEVKPAEED----- 345
C. carpio SQNNSMWMGRSVQVYTEELPSPLEVLSEVSLT----SHGTSQREERKPAEED----- 342
C. semilaevis GHTRGGLWVAADYLFSEERPSLEVISEFRLGPPLVSPPLPPKAPRGLTLGREE----N 352
E. lucius GYSAGGLCLRPAYFYSEELPAPLEVLSEVSLDLP--SSPLPPKAKQAPGED----- 347
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G. dobula ERESQRSDSGLTDRWREPPQAHWLMEQLRALQENPESRPQSALLQSHDITYVTLNQ--GD 409
P. kaznakovi ERESERSDGLTDRWREPPQAHWLMEQLRALQENPESRPQSLLQSHDITYVTLNQ--GD 402
S. gongshanensis ERESERSDGLTDRWREPPQVHVLMEQLRHLQENPESRSQSSILQSHDITYVTLNQ--GD 402
S. nukiangensis Tsao ERESERSDGLTDRWREPPQAHWLMEQLRHLQENPESRSQSSILQSHDITYVTLNQ--GD 402
S. prenati ERESERSDGLTDRWREPPQAHWLMEQLRHLQENPESRSQSSILQSHDITYVTLNQ--GD 402
D. rerio -DEDQRSDSGLTE-----PPHVLMEQLRALQENPESLRSRSTLLQSHDITYITLNH---SS 388
C. auratus EKESERSDGLTDRWPDPPAHWLMDQLRALQENPESHQSSLLQSHDITYVTLNQ--GD 402
C. carpio EKESERSDGLTDRWREPPQAHWLMEQLRALQENPQSLSQSLLVQSHDITYVTLNQNSQGD 402
C. semilaevis QEVLERSASTVT-----HDPWLMDRV-----LHQTALLESQDPYVTLNS--PP 393
E. lucius -EKLKRID-SLMERWRETPHEHWLMDQLRVLHQLPGP--QCSQLESQDAYVTLNAQN--HS 402
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G. dobula IEQQVDDVFETLPLQTLFSTAGTSSLSTSHSDLGSLQSSGSGRLSSQSSFEYPNHTWP 469
P. kaznakovi IEQQVDDVFETLPLQTLFSTAGTSSLSTSHSDLGSLQSSGSGRLSSQSSFEYPNHTWP 462
S. gongshanensis NEQQVDDVFETLPLQTLFSTAGTSSLSTSHSDLGSLQSSGSGRLSSQSSFEYPNHTWP 462
S. nukiangensis Tsao NEQQVDDVFETLPLQTLFSTAGTSSLSTSHSDLGSLQSSGSGRLSSQSSFEYPNHTWP 462
S. prenati NEQQVDDVFETLPLQTLFSTAGTSSLSTSHSDLGSLQSSGSGRLSSQSSFEYPNHTWP 462
D. rerio GGQREDDVFETLPLQTLFSTAGTSSLNASHSDLGSLRQSSASGRLSSQSSFEDPNHPWP 448
C. auratus IEQQADDVFETLPLQTLFSTAGTSPSLISHSDLGSLQSSGSGRLSSQSSLEYPNHTWP 462
C. carpio GEREVDDVFETLPLQTLFSTGTSSLSTSHSDLGSLQSSGSGRLSSQSSFEYPNQWTP 462
C. semilaevis DGEQVDELLEESLPLEVLFHP--GVTALCESHSDLGSGQSSGS--RMSSQSSFEYPNQAWT 451
E. lucius GEEPLDDILEETLPLQALFASGRT--CESHSDLGSLQSSGSGRLSTQSSFEYPNHTWP 460
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G. dobula PKGPGYAYMAVADSGVSMYSPMSSSRIAEVGRHSMYTN DYKNEIV--WPLSGQYVKS 527
P. kaznakovi PKGPGYAYMAVADSGVSMYSPMSSSRIAELGRHSMYTN DYKNEIV--WPLSGQYVKS 520
S. gongshanensis PKGPGYAYMAVADSGVSMYSPMSSSKIAELGRHRMYTN DYKNEMFLHKWPLSGQYVKS 522
S. nukiangensis Tsao PKGPGYAYMAVADSGVSMYSPMSSSKIAELGRHRMYTN DYKNEMFLHKWPLSGQYVKS 522
S. prenati PKGPGYAYMAVADSGVSMYSPMSSSKITELGRHRMYTN DYKNEIFLHNWPLSGQYVKS 522
D. rerio PKGPGYAYMAVADSGVSMYSPMSSSRITIEIGKRSFYANEYKNEIFGYKVPFSAQVQSG 508
C. auratus PKGPGYAYMAVADSGVSMYSPMSSSRIAELGRHRIYTN DYKNEIFPHKWPLSGQYIKSG 522
C. carpio PKGPGYTYMAVADSGVSMYSPMSSSRITELGRHRMYTN DYKNEIFLHKWPLFGEHNKSG 522
C. semilaevis RKGPGYTYMAVADSGVSMYSPMS--RVEDVGRVPVYANDYKNDIMSQKTLFLQRQRAVD 509
E. lucius PKGPGYTYMAVADSGVSMYSPMSSRIDYMGKGVITYNEyrNEIPAHROP IPFAF---- 516
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G. dobula SESYTGAVW 536
P. kaznakovi SESYTGAVW 529
S. gongshanensis SESCTGPVW 531
S. nukiangensis Tsao SESCTGPVW 531
S. prenati SESCTGPVW 531
D. rerio Y----- 509
C. auratus ----- 522
C. carpio SESCMGPVW 531
C. semilaevis DND----- 512
E. lucius ----- 516