

|           |                |         |       |              |              |                   |                    |             |            |            |            |
|-----------|----------------|---------|-------|--------------|--------------|-------------------|--------------------|-------------|------------|------------|------------|
| AncSR1    | CLVCGDYASG     | YHYGVWS | CEG   | CKAFFKRTIQ   | GHN DYMC PAT | NECTIDKNRR        | KSCQACRLRK         | CLEVGMMKGG  | VSLS       | SPDQLI     | SALLEAEPEV |
| humERa    | .A.N.....      | .....   | ..... | .....S.....  | .....        | .....Q.....       | .....Y.....        | .....I..... | TA         | ..MV       | ..D..PI    |
| lampreyER | .A.S.....      | .....   | ..... | .....ST..... | .....        | .....Q.....R..... | .....Y.....V.....V | .....R..... | EA         | ..V        | .....PT    |
| AncSR2    | ..I...E...C... | LT.GS   | ..V   | ..AVE        | .QHN.L.AGR   | .D.I...I...       | .N.P.....          | .COA..TL.A  | RPQFTPT..  | I.QAI...   |            |
| humPR     | ..I...E...C... | LT.GS   | ..V   | ..AME        | .QHN.L.AGR   | .D.IV..I...       | .N.P.....          | .COA..VL..  | RIQOLIPP.. | NL.MSI..D. |            |
| humAR     | ..I...E...C... | ALT.GS  | ..V   | ..AAE        | .KQK.L.ASR   | .D...F...         | .N.PS...           | .Y.A..TL.A  | RYECQPIFL  | NV.EAI..G. |            |
| humGR     | ...S.E...C...  | LT.GS   | ..V   | ..AVE        | .QHN.L.AGR   | .D.I...I...       | .N.P...Y..         | ..QA..NLEA  | RPOLTPT.V  | L.EVI...   |            |
| humMR     | ...E...C...    | VT.GS   | ..V   | ..AVE        | .QHN.L.AGR   | .D.I...I...       | .N.P...Q..         | ..QA..NL.A  | RRALTPSPV  | MV.ENI...I |            |
| lampreyGR | ..I.S.E...C... | LT.GS   | ..V   | ..AVE        | .QHN.L.AGR   | .D.I...I...       | .N.P.....          | ..QA..TL.A  | RPIFSPPT.. | AI.QAI...  |            |
| lampreyPR | .VI.C.E...C... | IT.GS   | ..V   | ..ASE        | .Q.N.L.AGR   | .D.I...I...       | .N.P.....          | .COA..VL.A  | HLSYSPSIL  | I.QLI...   |            |

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| AncSR1    | LYAMYDPSKP | DTEASMLTSL  | TNLADRELVH  | IISWAKKIPG | FVDLSLHDQM   | HLLQCCWMEI | LMLGLIWRSL | DHGKPGKLIF | APDLILDRSL |
| humERa    | ..SE...TR. | FS...MGL.   | .....       | M.N...RV.. | ...T...V     | ..E.A.L..  | ..I.V...M  | E...L..    | ..N.L...-- |
| lampreyER | VLSS...D.. | V...LMAA.   | ..S.....    | M.T.....   | ..TAIG.S..V  | Q..E...L.. | ..IV...I   | R--..Q.H.  | ..N...G--  |
| AncSR2    | V..G..NT.. | ..A.YL...   | NR.CE.Q..S  | VVK...AL.. | ..RN.HID...I | T.I.YS..GL | MAFAMG...Y | K.ANGQM.Y. | ...VFNET.  |
| humPR     | I..GH.NT.. | ..SS.L...   | NQ.GE.Q..LS | VVK.S.SL.. | ..RN.HID...I | T.I.YS..SL | MVF..G...Y | K.VSQM.Y.  | ...NE--    |
| humAR     | VC.GH.NNQ. | ..SF.AL.S.. | NE.GE.Q..   | VVK...AL.. | ..RN.HVD...I | AVI.YS..GL | MVFAMG...F | TNVNSRM.Y. | ...VFNE--  |
| humGR     | ..G..S.V.  | ..STWRIM.T. | NM.GG.QVIA  | AVK...A..  | ..RN.H.D...I | T..YS..FL  | MAFA.G...Y | ROSSANL.C. | ...INE--   |
| humMR     | V..G..S... | ..AENL.ST.  | NR..GKQMIQ  | VVK...VL.. | ..KN.P.E..I  | T.I.YS..CL | SSFA.S...Y | K.TNSQF.Y. | ...VFNE--  |
| lampreyGR | VMSG..NTRS | Q.T.Y..S..  | NR.C.KQ..S  | .VK...SL.. | ..RN.HID...I | V.I.YS..GL | MSFAMS...F | Q.TNSKL.Y. | ...VF.ET-  |
| lampreyPR | V..GF.N.R. | M.ANYL...   | NR.CE.Q..P  | VVK...VL.. | ..KE.HID...I | T.I.YS..GL | MAFAMG...Y | KLANGQM.Y. | ...FNE--   |

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| AncSR1    | LEEGKRVAGM | LLEFDMLLQL | TSRFRELKLO | REEYVCLKAL | ILLNSGVFSF  | LNETLEELN   | RELIQRLQDK  | VTDALVDYIA  | KOGLS--SQ   |
| humERa    | -NQ..C.E.. | V.I...AT   | S...MMN..  | G..F...SI  | .....YT.    | ..SS.KS.E   | KDH.H.VL..  | I..T.IHLM.  | ..A..T--L.. |
| lampreyER | ..DARN.E.. | DM...VT    | V...H.R    | .....M     | .....FC     | ..SNSAG.QT. | VQ...QILE.. | ..M...GST.G | HIEA.--PP.  |
| AncSR2    | ..QRMQQA.  | Y..CLGMR.I | SQE.VR.QVT | Q..FL.M..  | L...TVPQEG  | ..KS.....D  | QAFFDEMRRN  | YIRE.NKV..  | RRQKN--AA.  |
| humPR     | --QRMKESF  | YS.CLTMW.I | POE.VK.QVS | Q..FL.M.V. | L...TIPLEG  | ..RS-----   | QTQFEEMRSS  | YIRE.IKA.G  | LRQKG--VVS  |
| humAR     | --YRMKNSR  | YSQCVRMRH. | SQE.GW.QIT | PQ.FL.M..  | L.FSIIIPVDG | ..KN-----   | QKFFDE.RMN  | YIKE.DRI..  | CKRKNP-PTS  |
| humGR     | --QRMTLPC. | YDQCKHM.YV | S.ELHR.QVS | Y...L.M.T. | L.S.VPKDG   | ..KS-----   | Q..FDEIRMT  | YIKE.GKA.V  | REGN--SS.   |
| humMR     | --KMHQSA.  | Y..CQGMH.I | SLQ.VR.Q.T | F...TIM.V. | L..STIPKDG  | ..KS-----   | QAAFEEMRTN  | YIKE.RKMVT  | ..CPNN--SG. |
| lampreyGR | --RMQQA.   | YQ.CVEMR.V | SED.MK.QVT | S..FL.M..I | L..STVPQEG  | ..KS-----   | QGCFEEMRIS  | YIRE.NRT..  | RTEKNAHAL.  |
| lampreyPR | --QRMQQA.  | Y..CLGMQ.V | FKQ.GL.QVT | -Q.EFLM..I | M...TVPQEG  | ..KT-----   | QAFFNEMRRN  | YIRE.NKVVI  | SKNN--TAD   |

|           |            |            |            |             |             |            |             |
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| AncSR1    | QPRRLGQLL  | LLSHIRHISN | KAMEHLYSMK | LKSQNLANVV  | PLHDLLEML   | DAHTLHSPGL | RSASPPQEEER |
| humERa    | .HQ..A...I | .....M..   | ..G.....C  | .....       | .....Y..... | ..R..A.TS  | ..GGASVE.TD |
| lampreyER | HS...S...Q | .....      | ..GI...N.. | R-----I     | ..Y.....L   | ..S.QNT..  | ..TSP...DF. |
| AncSR2    | SWQ.FY..TK | ..DSMHDLVG | QLLQFCFHTF | VQ...TLS.   | EFPEMMS.II  | S.QLPKILAG | MVKPLLFHKK  |
| humPR     | SSQ.FY..TK | ..DNLHDLVK | QLHLYCLNTF | IQ.R--LS.   | EFPEMMS.VI  | A.QLPKILAG | MVKPLLFHKK  |
| humAR     | CS..FY..TK | ..DSVQPAR  | ELHQFTFDLL | I..H--MVS.  | DFPEMMA.II  | SVQVPKILSG | KVKPLYFHQTQ |
| humGR     | NWQ.FY..TK | ..DSMHEVVE | NLLNYCFQTF | .D-K--TMSI  | EFPEM.A.II  | TNQLPKYSNG | NIKKLLFHQK  |
| humMR     | SWQ.FY..TK | ..DSMHDLVG | DLL.FCFYTF | RE.H--LK.   | EFPEM.V.II  | SDQLPKVESG | NAKPLYFHRR  |
| lampreyGR | CWQ.FY..TE | ..AAC...Y  | Q.P.V.FATF | TQT.--VWS.  | EFPEMMA.II  | S.QLASHH.R | EARALHFHKK  |
| lampreyPR | GWK.FY..TK | M.DSMHDLVG | GMLQFCCHTF | VQ...--TLS. | EFPEMMS..I  | N.QLPRVLG  | MAKPLLFHGG  |