

CLUSTAL X (1.83) multiple sequence alignment

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hsIL-21R      CYTDYLQTVICILEMWNLHPST---LTLTWQDQYEELKDEATSCSLHRSAHNATHATYTC
mm1l-21r     CYTDYLWTITCVLETRSPNPSI---LSLTWQDEYEELQDQETFCSLHRSGHNTTHIWYTC
hsIL-4Ra     CVSDYMSISTCEWKMNPTNCS---TELRLLYQLVFL-LSEAHTCIPE---NNGGAGCVC
mm1l-4ra     CFSDYIRTSTCEWFLDSAVDCS---SQLCLHYRLMFFEFSENLTICIPR---NSASTVCVC
hsIL-2Rb     CFYNSRANISCVWSQ-DGALQD---TSCQVHAWPDRRRWNQTCCELLPVSQASWACNLILG
mm1l-2rb     CFYNSRANVSCMWSH-EEALNV---TTCHVHAKSNLRHWNKTCELTLVRQASWACNLILG
hsIL-9R      CLTNNILRIDCHWSAPELGQGS---SPWLLFTSNQAPGGTHKCILRGS-----ECTVVLP
mm1l-9r      CLSNSIYRIDCHWSAPELGQES---RAWLLFTSNQVTEIKHKCTFWDSE-----MCTLVLP
mm1l-3rbc_il3_CHD2  CFFDGIQSLHCSWEVWTQTTGS---VSFGLFYRP-----SPAAPPEKCSPPVKEPQ-ASV
mm1l-3rbc_CHD2  CFFDGIQSLHCSWEVWTQTTGS---VSFGLFYRP-----SPVAPPEKCSPPVKEPPGASV
hsIL-3Rbc_CHD2  CFFDGA AVLSCSWEVRKEVASS---VSFGLFYKP-----SPDAGEEECSPVVLEGL-GSL
mm1l-3rbc_il3_CHD1  CYNDYTNRIICSWADTEDAQGL---INMTLLYHQLDKI-QSVSCEELSEKLMWSECPSSHR
mm1l-3rbc_CHD1  CYNDYTNHIICSWADTEDAQGL---INMT-LYHQLEKK-QPVSCEELSEKLMWSECPSSHR
hsIL-3Rbc_CHD1  CYNDYTSHTICRWADTQDAQRL---VNVTLIRRVEDLLEPVSCDLSDDDMPWSACP-HPR
hsIL-7R      -----CYSQLEVNGSQ---HSLTCAFEDPDVNIITNLEFEICGALVEVKCLNFRK
mm1l-7r      -----CHSQLEVDGSQ---HLLTCAFNDSDINTANLEFQICGALLRVKCLTLNK
dril-2rb     CVNDYMTNISCVWNNYSNQQCELEVNCKISPSSQSKSSRCELVPQNNLSNSPRSCFL
dril-21r.a   CTTFDISALNCSASDLTGFTASCVDVASCDEFSTVNGSCSIRSP-QSWCTMESPYESIM
dril-3rbc_CHD2  CVIEGETTVMCTWQMRTEYFQF-----MTYHMLCHDNTGHHPCCKTPQLKSSNDELIE
dril-3rbc_CHD1  CYNDYKSYTECTWETDPANFTLYYYDKNKNLETLCLLNKPHVVLVPLNGKLSHVCRYNTVR
dril-7ra     -----CTSTLTLMQNIL-----YCFPNDEPIEEVIFATLCKMKEKSKCTNATL
dril-4ra     CFNDYEAEMTCSFSSES LRNCS-----GYNMNVTQKLAYEINRYSCVFERSHHNAICEC
dril-21r.b   SDHISRTARSCRFAFYNIKMKLQNAVARVVFNEPKRANVTPLLIRLHWLPVAARIKFKAL

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hsIL-21R      HMDVVFHF-----MADDIFS---VNITDQSGNYSQECGSFLLAE----SIKPAPP--F
mm1l-21r     HMRLSQF-----LSDEVFI---VNVTDQSGNNSQECGSFVLAE----SIKPAPP--L
hsIL-4Ra     HLLMDDV-----VSADNYT---LDLWAGQQLLWK--GSFKPSE----HVKPRAPGNL
mm1l-4ra     HMEMNRP-----VQSDRYQ---MELWAEHRQLWQ--GSFSPSG---NVKPLAPDNL
hsIL-2Rb     -APDSQK-----LTTVDIVTLRVLCREGVRWRVMAIQDFKPFEE---NLRLMAPISL
mm1l-2rb     SFPESQS-----LTSVDLLDINVVCWEEKGWRRVKTCDFFHPFD---NLRLVAPHSL
hsIL-9R      --PEAVL-----VPSDNFTITFHHCMSGREQVSLVDPEYLPRR----HVKLDPPSDL
mm1l-9r      --KEEVF-----LPFDNFTITLHRCIMGQEQVSLVDSQYLPRR----HIKLDPPSDL
mm1l-3rbc_il3_CHD2  YTRYRCS-----LPVPEPS-AHSQYTVSVKHLEQGKFIMSYH----IQMEPP---I
mm1l-3rbc_CHD2  YTRYHCS-----LPVPEPS-AHSQYTVSVKHLEQGKFIMSYNH----IQMEPP---T
hsIL-3Rbc_CHD2  HTRHHCQ-----IPVPDPA-THGQYIVSVQPRRAEKHIKSSVN----IQMAPP---S
mm1l-3rbc_il3_CHD1  CVPRRCV-----IPYTRFSNGDNDYYSFQPDRLGIQLMVPLA----QHVQPPPKD
mm1l-3rbc_CHD1  CVPRRCV-----IPYTRFSITNEDYYSFRPDSDLGIQLMVPLA----QNVQPPLPKN
hsIL-3Rbc_CHD1  CVPRRCV-----IPCQSFVVDVDYFYSFQPDRLGLTRTLVTLT---QHVQPPEPRD
hsIL-7R      LQEIYFI-----ETKKFLLIGKSNICVKVGEKSLTCKKIDLTT---IVKPEAPFDL
mm1l-7r      LQDIYFI-----KTSEFLLIGSSNICVKLGQKNLTCKNMAINT---IVKAEAPSDL
dril-2rb     FCENAYF-----FFLSKMV-----LSVSCNGSLISSLHYKPGR---HIKTQPP--D
dril-21r.a   SFDTNCF-----ITVTQMD---KEGDMEIPTQRYSKNIVLYK---STKPKQPFLN
dril-3rbc_CHD2  FMCSVNV-----IDPNQLT-----VELKQVLFTRTFKTAH---HIKLPQDKL
dril-3rbc_CHD1  FGLNTNH-----TLYFKVQCNGNTPTSLRVAQHVEKSFTVMCMI----SGKVRAPVNL
dril-7ra     GPKYFSF-----ENLENIVKYELQVHLRDG---IEKEIDLTK---MVKIPAPLKL
dril-4ra     KIEVEGF-----ITEEIFS-----TTLKGTKVLLQRDFKTID---YIKPKTPVLF
dril-21r.b   MFAYKATSGFAPSILLSLLQISLVTHDPLVLCDWLFAACVTLISAGGTHLITNVKPPAPF

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hsIL-21R NVTVTFSG-QYNISWRSDYED-PAFYMLKGLQYELQYRNRGDPWAVSPRRKLISVDSRS
mm1l-21r NVTVAFSG-RYDISWDSAYDE-PSNYVLRGKGLQYELQYRNLDPYAVRPVTKLISVDSRN
hsIL-4Ra TVHTNVSD-TLLLWTSNPY---PPDNYLYNHLTYAVNIWSENDPADFRIYN--VTYLEPS
mm1l-4ra TLHTNVSD-EWLLTWNNLY---PSNNLLYKDLISMVNISREDNPAEFIVYN--VTYKEPR
hsIL-2Rb QVVHVETH-RCNISWEIS----QASHYFERHLEFEARTLSPGHTWEEAPLLT---LKQKQ
mm1l-2rb QVLHIDTQ-RCNISWKVS----QVSHYIEPYLEFEARRRLGHSWEDASVLS---LKQRQ
hsIL-9R QS-NISSG-HCILTWSIS----PALEPMTTLLSYELAFKKQEEAWEQAQHRD---HIVGV
mm1l-9r QS-NVSSG-RCVLTWGIN----LLEPLITSLSYELAFKKQEEAWE-ARHKD---RIVGV
mm1l-3rbc_il3_CHD2 LNQTKNRD-SYSLHWET-----QKIP-KYIDHTFQVQYKKKSESWKDSKTEN---LGRVN
mm1l-3rbc_CHD2 LNLTKNRD-SYSLHWET-----QKMAYSFIEHTFQVQYKKKSDSWEDSKTEN---LDRAH
hsIL-3Rbc_CHD2 LNVTKDGD-SYSLRWET-----MKMRYEHIDHTFEIQYRKDTATWKDSKTET---LQNAH
mm1l-3rbc_il3_CHD1 IHISPSGD-HFLLHSVSLGDSQVSWLSSKDI EF EVAYKRLQDSWEDASSLH---TSNFQ
mm1l-3rbc_CHD1 VSISSSED-RFLLLEWSVSLGDAQVSWLSSKDI EF EVAYKRLQDSWEDAYSLSH---TSKFQ
hsIL-3Rbc_CHD1 LQISTDQD-HFLLTWSVALGSPQSHWLSPGDLEFEVVYKRLQDSWEDAAILL---SNTSQ
hsIL-7R SVVYREGANDFVVTFNST----HLQKKYVKVLMHDVAYRQEKDENKWITHVN---LSSTK
mm1l-7r KVVYRKEANDFLVTFNAP----HLKKKYLKKVKHDVAYRPARGESNWTHVS----LFHTR
dril-2rb KPVVNGSN----VSWSKG----SNFPKSIKKHEFQLQFKDAHTSWEMAKPGQ---LSQENY
dril-21r.a TIRNIDGG--FNLTWDVAY----TDNVLYEKLIYRVRVLSKSSSPKENIYTLQ--QNQQS
dril-3rbc_CHD2 NTMEVDDA--LQLNWSIT-----AVKRGIEFTAEIKLSTNKESMIFNCTER-----VNT
dril-3rbc_CHD1 TEMMTDGG-GRLLSWKSPY---PASSNITRSLMYQLQYRRHMDWTVTDKIN-----VSE
dril-7ra SATFLKETDEIFIWFHER-----HDYVRQCQFQVEIRGEHEPISLLVDYK-----N
dril-4ra VKKTENGN--FHVTWVDSY---EQRNVFTDNLFITLTYRIKGEIETNSTKIVAN---TVGF
dril-21r.b NLTLLENG-TYKFFWKSGY--EAYRYWRVLPRLYQFLYKDGHEHNVSAKHH---VYKEE

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hsIL-21R VSLPLPEFRKDSSEYELQVRAGPMPGSSYQ-----GTWSEWS
mm1l-21r VSLPPEEFHKDSSYQLQVRAAPQPGTSFR-----GTWSEWS
hsIL-4Ra LRIAASSTLKSIGSYRARVRAWAQ---CYN-----TTWSEWS
mm1l-4ra LSFPI NILMSG VVY Y T ARVRVRSQ---ILT-----GTWSEWS
hsIL-2Rb EWICLETLTPDTQYEFQVRVKPLQG-----EFTTWPWS
mm1l-2rb QWLFLEMLIPSTSYEVQVRVKAQRN-----NTGTWSPWS
hsIL-9R TWLILEAFELDPGFIHEARLRVQMATLE--DDVVEEERYTGQWSEWS
mm1l-9r TWLILEAVE LNPGSIY EARLRVQMT-LESYEDKTEGEYYKSHWSEWS
mm1l-3rbc_il3_CHD2 S-MDLPQLEPDTSYCARVRVKP--ISDYD-----GIWSEWS
mm1l-3rbc_CHD2 S-MDLSQLEPDTSYCARVRVKP--ISNYD-----GIWSKWS
hsIL-3Rbc_CHD2 S-MALPALEPSTRYWARVRVRTS-RTGYN-----GIWSEWS
mm1l-3rbc_il3_CHD1 VNLEPKLFLPNSIYAARVRTRLSAGSSLS-----GRPSRWS
mm1l-3rbc_CHD1 VNFEPKLF LPNSIYAPRVRTRLYPGSSLS-----GRPSRWS
hsIL-3Rbc_CHD1 ATLGPEHLMPSSTYVARVRTRLAPGSRLS-----GRPSKWS
hsIL-7R LTLLQRKLQPAAMY EI K VRSIP-DHYFKG-----FWSEWS
mm1l-7r TTIPQRKLRPKAMYEIKVRSIPHNDYFKG-----FWSEWS
dril-2rb TQLNHDL LTVGEEYQARVRVKPVEPKTDG-----HFRGEWSEWS
dril-21r.a MVILSEKLPGLQH VADVQAVNPEWFP S-----MWSEWS
dril-3rbc_CHD2 YRIPFKFLHPSTDYLAQIRFVPIPKKDYR-----LQPSDWS
dril-3rbc_CHD1 HTIIKESLFPGYHYEARVRARGPVG-----LWSNWS
dril-7ra ISMSRDRLGGDGVYSTRVRAKPINYFAGD-----WSEWS
dril-4ra CDIVGSLLPKTEYILTAKMSSNYNGQK-----IYSDQS
dril-21r.b IEIENKLLDPGTSYSAVVRTGIETHPKYS-----GTWSDWS

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