



D

Eyes absent family alignment

Eye3_Hs ERVFLWDLDETIIFHSLLTGYSY - A QKYGKDP TTVVIGSGLTMEEMIFEVADTHLFFNDLE
Eye3_Dm ERVFLWDLDETLIFHSLLTGYSY - ANRYTKDHS SLMTIAFRMEEMVFNMAADTHFFNFNEIE
Eye2_Hs ERVFLWDLDETIIFHSLLTGTF - ASRYGKDTTTSVRIGLRMEEMIFNLADTHLFFNDLE
SMEDEya ERIFVWDLDETIIFHSLLTGTY - A QKYQKDA STAVALGLRMEELIFSLADNHMFFNDLEIEPFHVIDQQGHHI Q I I L K S M L R K Y P F D R
Eye1_Dj ERIFVWDLDETIIFHSLLTGIY - A QRYQKDA STAVALGLRMEELIFSLADNHMFFNDLE
Eye1_Hs ERVFLWDLDETIIVFHSLLTGSY - ANRYGRDPTTSVSLGLRMEEMIFNLADTHLFFNDLE
Eye4_Hs ERVFLWDLDETIIVFHSLLTGSY - A QKYGKDP PMAVTLGLRMEEMIFNLADTHLFFNDLE
Eye3_Hs ECDQVHEDVSDDDNGQDLSNYSFSTDFGSGSGSGS - - - - - HGSS - - VGVQGGVDWMR
Eye3_Dm ECDQVHEDVSDDDNGQDLSNYSFSTDFGSGSGSGS - - - - - LCLP - - TGVRRGGVDWMR
Eye2_Hs ECDQVHEDVSDDDNGQDLSNYSFSTDFGSGSGSGS - - - - - LCLG - - SGVHGGVDWMR
SMEDEya WKGEKYLQLS QSLIDRVLKRRHYSIRECDQVHEDVSDDDNGQDLSNYSFSTDFGSGSGSGS - - - - - VGVQGGVDWMR
Eye1_Dj ECDQVHEDVSDDDNGQDLSNYSFSTDFGSGSGSGS - - - - - LCLP - - TGVRRGGVDWMR
Eye1_Hs ECDQVHEDVSDDDNGQDLSNYSFSTDFGSGSGSGS - - - - - LCLA - - TGVRRGGVDWMR
Eye4_Hs ECDQVHEDVSDDDNGQDLSNYSFSTDFGSGSGSGS - - - - - LCLP - - TGVRRGGVDWMR
Eye3_Hs KLAFRYRKVREIYDKHKS NVGGLLSPQRKEALQRLRAEIEVLTDSWLG TALKS LLLI QSRKNCVNVLI TTTQLVPALAKVLLYGLGEIFP
Eye3_Dm KLAFRYRKIKDIYNSYRGNVGTLLGPGKREAWLQIRSEIEVATDNWATLALKCLSMISQRENCVNVLVSTSTQLAPALAKVLLYGLGGIFN
Eye2_Hs KLAFRYRRYKEMYNNTYKNNVGGLLIGTPKRETWLQLRAELEALTDLWLTHSLKALNLSRPN CVNVLVSTTTQLIPALAKVLLYGLGGVFP
SMEDEya KLAFRYRRYKELYNSYRNNVGGLLGTQKREHWLQLRQDIETLDNWLTLAKALTLISQRNCCVNVLVSTTTQLVPALAKVLLYGLGGVFP
Eye1_Dj KLAFRYRRYKELYNSYRNNVGGLLGTQKREHWLQLRQDIETLDNWLTLAKALTLISQRNCCVNVLVSTTTQLVPALAKVLLYGLGGVFP
Eye1_Hs KLAFRYRRYKELYNTYKNNVGGLLGPAKREAWLQLRAEIEALTDSWLTLAKALSLSIHSRTNCVNLVSTTTQLIPALAKVLLYGLGIVFP
Eye4_Hs KLAFRYRRYKELYNTYKNNVGGLLGPAKRDRAWLQLRAEIEGLTDSWLTNALKSLSLSIISTRNCCVNLVSTTTQLIPALAKVLLYSLGGAFP
Eye3_Hs IENIYSATKIGKESCFERIVSRFGKKTYYVYVIGDGRDEEIAAKQHNMPFWRITNHGDVLSLHQALELDFL - - - - -
Eye3_Dm IENIYSAHKIGHETCYERIVTRFGRKSTYYVYVIGDGNEEETAAKAMNPPFWRISAHSDIRALYALDMGFL - - - - -
Eye2_Hs IENIYSATKIGKESCFERIMQRFGRKAVYVYVIGDGVVEEQGAKKHNMPFWRISCHADLEALRHAELELEYL - - - - -
SMEDEya IENIYSANKIGKESCFERISSRFGRKSTYYVYVIGDGKDEETAARQVSWPFWRISHSDIVALHHALESGLYLLHF AFFYSFEINTTCFN
Eye1_Dj IENIYSANKIGKESCFERISSRFGRKSTYYVYVIGDGKDEETAARQVSWPFWRISHSDIVALHHALESGLYLL - - - - -
Eye1_Hs IENIYSATKIGKESCFERIQRFGRKVVYVYVIGDGVVEEQGAKKHAMPPFWRISHSDLMAHHALELEYL - - - - -
Eye4_Hs IENIYSATKIGKESCFERIMQRFGRKVVYVYVIGDGVVEEQGAKKHNMPFWRISHSDDLALHQALELEYL - - - - -

E

Sal-like zinc finger region alignment

Sem4_Ce I II
Smed-Sall
Salm_Dm PFFKHKRCRYCGKVFSGDSALQIHIRSH TGERPFFKCNVCGSRFTTKGNLKVHFQRHAKQFPHPVPMNATPIPEH
Salm_Dm EIFFKHKRCYCGKIFGYSALQIHLRSH TGERPFFKCNVCGSKFTTKGNLKVHYQRHTQIFPPMLLPFGVAPNV
Sall2_Hs PGGRHKRCFCAKVFSGDSALQIHLRSH TGERPFFKCNVCGNRFTTRGNLKVHFHRRHREKYPHVQMNPHVPPEH
Sall4_Hs ALYKHKCR - - - - - SSLPSTFIIRAPPTTYVK
Sall1_Hs AFFKHKRCFCAKVFSGDSALQIHLRSH TGERPFFKCNICGNRFSTKGNLKVHFQRHKEKYPHIQMNFPVPEH
Sall3_Hs PFFKHKRCFCAKVFSGDSALQIHLRSH TGERPFFKCNICGNRFSTKGNLKVHFQRHKEKYPHIQMNFPVPEH
Sem4_Ce III IV V
Smed-Sall TTDPNQCILCRRVLSCKSALQMHYRTH TGERPFFKCKICGRAFTTKGNLKTTHMGVHRSKHSFRGLPISLPPQLAAMHQHQIAPPQRIHII
Salm_Dm RTRPNVCGVVINI - KXSALTMHYRVHTERPFVCTVCEKRFSTKGNLKTHLGQH - - - - -
Salm_Dm ISDPNQCIVVCDRVLSCKSALQMHYRTH TGERPFFKCKICGRAFTTKGNLKTTHMAVHKIRPPMR - - - NFHQCPVCHKKYSNALVYLQQHIRLH
Sall2_Hs LTPDNQCIFCQKVMSCRSLLQMHIRTHTGERPFFKCKICGRAFAFKGNLKAHMSIHKIKPPMR - - - SQFKCPVCHQKFSNGIILQQHIRLH
Sall4_Hs SSGPNQCIVICLRVLSCPRALRLHYGQHGGERPFFKCKVCGRAFSTRGNLRAHFVGHKASPAAR - - - AQNSCPICQKKFTNAVTLQQHVRMH
Sall1_Hs FVGPSS - - - - -
Sall3_Hs ATDPNECIIICHRVLSQSALKMHYRTH TGERPFFKCKICGRAFTTKGNLKTTHSYVHRAMPPLR - - - VQHS CPICQKKFTNAVYLQQHIRMH
Sall3_Hs MTDPNQCIVICHRVLSQSALKMHYRTH TGERPFFKCKICGRAFTTKGNLKTTHFVHRAKPPLR - - - VQHS CPICQKKFTNAVYLQQHIRMH
Sem4_Ce VI VII VIII
Smed-Sall QQCPICQQRFLNAGELAVHITTEHRN - - - - -
Salm_Dm PNV CNLCFKMLPSLAALESHLQSEHAKEP - - - - -
Salm_Dm - - - - -
Sall2_Hs - - - - -
Sall4_Hs - - - - -
Sall1_Hs NTA CDICGKTFACQSALDIHYRSH TKERPFVICTVCNRFSTKGNLKHMLTHQ - - - - -
Sall3_Hs STVCGVCGKPFACQSALEIHYRSH TKERPFVICALCRRGCSTMGNLKHMLLTHR - - - - -
Sem4_Ce IX X
Smed-Sall SKHQCGVCFKHFSSSALQIHMRTHTGDKP - FKCDMCGRAFTTRGNLKVHMGTHSWQSPSRRGRR - - - - -
Salm_Dm DSNICICRQSFQSKFALELHFRVHTGGKE - - - - -
Salm_Dm GSTTCGICYKTFPCHSALEIHYRSH TKERP - FKCSDICDRGFTTKGNLKHMLTH - - - - -
Sall2_Hs NKHFCHVCRNRFSSSALQIHMRTHTGDKP - FQCNVCQKAFSTKGNLKVHMGTHMWTNPTSRGRR - - - - -
Sall4_Hs SRKACEVCGQAFPSQAALAEHQTHPKEGPLF - FVCNFCGRAFTTKGNLKVHMGTHMWTNPTSRGRR - - - - -
Sall1_Hs KQHGTTCRCGKNFSSSALQIHERTH TGEKP - FVACNFCGRAFTTKGNLKVHMGTHMWTNPTSRGRR - - - - -
Sall3_Hs KQHGTTCRCGKTFSSSALQIHERTH TGEKP - FQCTICGRAFTTKGNLKVHMGTHMWTNPTSRGRR - - - - -
Sem4_Ce XI
Smed-Sall TVCSYCKVCSQSPNELEQLKEHLN - - - - -
Salm_Dm - - - - -
Salm_Dm - - - - -
Sall2_Hs - - - - -
Sall4_Hs - - - - -
Sall1_Hs - - - - -
Sall3_Hs - - - - -

F

Odd skipped related (Osr) zinc finger region alignment

Smed-Osr I II III
Osr1_Hs KKLKSTRGXGRXKKEYICRFCHRHFTKSYNLLIHERTH TDERPFFCDICGKAFFRR - - IYETTIIHSL - - - - -
Osr1_Hs KKPTRGRLPSTKKEFVCKFCGRHFTKSYNLLIHERTH TDERPPTCDICGKAFFRRQDHLRDHRYIHSKEKPFK CQECGKGFCSRTLAVHKTLHSQVKELKTS
Osr1_Hs P SGATGSSRPKQFICRYCNRFQFTKSYNLLIHERTH TDERPYSCDICGKAFFRRQDHLRDHRYIHSKDKPFK CSDCGKGFCSRTLAVHKVTHLEEGPHKCP

Figure S2 continued