

PRDM9_homSap
 DKGHPNRSALSIPGLRIGPSGIPQAGLVVNEASDLPLGLHFGPYEGRITDEEAAANGYSWLITKGRNCYEVVDGDKSWANWMRVYVNCARDDEEQLNVAFOYHRQIFYRTRCVIRPGCELLVWYGDEYGGQELGIKWG
 SKWKKELMAGR
 PRDM9_panTroR.....P.....S.....Q.....S.....E.....S.....S.....
 PRDM9_gorGorK.....
 PRDM9_ponAbeK.....W.....
P.....
 PRDM9_nomLeuW.....
 G.....P.....
 PRDM9_macMulQ.....
 E.....
 PRDM9_papHamK.....
 N.....
 PRDM7_homSapS.....S.....
 PRDM7_ponAbeT.....K.....
 PRDM7_calJacHA.....V.....SS.....
 PRDM7_micMurK.R.....E.....QV.....S.....D.....E.....Q.....
E.TIRQ
 PRDM7_otoGarV.....S.G.RT.....F.....Q.....QV.....S.....E.QG.....E.....
T.Q.....
 PRDM7_tupBelSL.....V.....A.....E.....A.T.....Q.....S.....E.C.....
E.....S.WQ.E
 PRDM9_oryCunV.....E.....Q.....E.....S.....R.....N.....K.....Q.....K.....
E.T.....
 PRDM7_oryCunV.....E.....Q.....E.....S.....R.....N.....K.....Q.....K.....
E.T.....
 PRDM7_ochPriH.V.....S.....E.....TT.....QV.....E.T.S.....R.....P.Q.....N.....AV.Q.....
E.T.....
 PRDM7_ratNorR.....H.V.....E.....V.....K.Q.....S.....Q.E.Q.....K.....R.....
M.GFT.....
 PRDM7_musMusR.....H.V.....S.....E.....V.....Q.....S.....Q.E.Q.....K.....
M.GFT.....
 PRDM7_musMolR.....H.V.....S.....E.....V.....Q.....S.....Q.E.Q.....K.....
M.GFT.....
 PRDM7_dipOrdYD.V.....RQ.S.E.....E.....Q.....D.S.....M.....V.....Q.....Y.....KA.....
R.T.....
 PRDM7_speTriV.....S.....E.....T.....R.Q.....S.....E.Q.....
 N.D.S.H.T.....L.....S.....E.....T.....R.Q.....S.....E.Q.....
S.....
 PRDM9_bosTauA.....V.T.....S.KL.....E.....H.....Q.D.K.I.S.....S.....T.L.....HY.....G.....Q.V.....EK.....CE
 .RG.SMFA...
 PRDM9_oviAriA.....T.....S.RL.....E.....H.....Q.D.K.V.S.....T.L.....L.QG.....Q.V.....D.....RD
 .SG.S.A...
 PRDM9_munMunA.....T.....H.S.RL.....D.....KV.....A.....K.Q.DN.....S.A.....T.....G.....Q.V.....DF.....RN
 .RG.S.A...
 PRDM7_turTruT.....S.R.....E.....Q.....S.....T.....E.....V.....S.....P.....
 .G.SQ.V...
 PRDM7_lamPacT.....R.....E.....H.....QV.....S.....K.....Y.....
E.....S.WQ.E
 PRDM7_susScrT.....R.....E.....H.....QV.....S.....V.....
T.I
 PRDM7_felCatT.....R.S.E.....T.....Q.....S.....N.....
 G.....S.....S.T.K
 PRDM7_ailMelQ.....T.....R.....Q.....S.....N.....E.....
S.A.K
 PRDM7_pteVamR.....T.....E.....L.....QV.....S.....QG.....E.R.....
R.T.....
 PRDM7_myoLucA.....T.....E.....EC.V.Y.Q.....AI.S.....T.Q.....V.K.....
E.....T.PV...
 PRDM7_equCabT.L.R.....E.....Q.....S.....I.....V.....
R.T.....
 PRDM7_sorAraS.....T.H.....E.....I.....Q.N.....S.....V.E.L.....Y.....I.K.....
S.T.DK
 PRDM9_loxAfrR.....H.....T.....S.K.....E.....QV.....K.S.....K.....E.....E.....T.Q.D.....
R.....TS...
 PRDM7_choHofR.KH.....V.....L.....E.....QV.....T.S.....C.....A.....
T.EK
 PRDM9_homSap
 DKGHPNRSALSIPGLRIGPSGIPQAGLVVNEASDLPLGLHFGPYEGRITDEEAAANGYSWLITKGRNCYEVVDGDKSWANWMRVYVNCARDDEEQLNVAFOYHRQIFYRTRCVIRPGCELLVWYGDEYGGQELGIKWG
 SKWKKELMAGR
 PRDM11_homSap
 VGI~~P~~DR~~A~~AAL~~T~~IPQGM~~E~~VK~~D~~TSG~~E~~S~~D~~VRC~~V~~NE~~V~~IPK~~G~~HI~~F~~GPY~~E~~QISTQ~~D~~K~~S~~AG~~F~~FS~~W~~LIV~~D~~KN~~N~~RY~~K~~S~~I~~D~~G~~SD~~E~~T~~K~~AN~~W~~MR~~V~~Y~~V~~IS~~R~~E~~E~~R~~E~~Q~~N~~L~~L~~A~~F~~Q~~H~~SER~~I~~V~~F~~RAC~~R~~DI~~R~~P~~G~~E~~W~~L~~R~~V~~W~~Y~~S~~E~~D~~Y~~M~~K~~R~~L~~H~~S~~M~~S~~O~~ET~~I~~H
 RN~~L~~A~~R~~
 PRDM11_panTro2
 PRDM11_rheMac2I.....
 PRDM11_papHamI.....
V.....
 PRDM11_calJac1C.....

```

.....
PRDM11_otoGar1
M.....EA...N...I.....A.....R.....
.....
PRDM11_musMus      .....AG.....I.....R.....
.....
PRDM11_ratNor      .....EVG.....I...V.....R.....
.....
PRDM11_dipOrd1     .....S.....I.....R.....D.....R.....
.....G.....
PRDM11_cavPor3     .....I.EAG.....I.....R.....
.....
PRDM11_speTri1     .....EA.....IS.....R.....G.....R.....
.O...R.....
PRDM11_oryCun2     .....L...QEA.....I.D...R.....AA.....S.....Q.....N.H.....A..R.....
.G.....
PRDM11_ochPri2     M..A.....EA.....LSD.....H.....Q...R.....
.....
PRDM11_vicPac1     M..A.....EA.....LSD.....E.X..C.DPL..L.H..G.....V.....R.....
.....
PRDM11_bosTau4     .....EA...N...I.....R.....S.....R.....
.....
PRDM11_equCab2     .....EA...N...I.....T.....R.....
.....
PRDM11_canFam2     .....EA...N...I.....R.....
.....H.....
PRDM11_myoLuc1     .L.....AN..N...I.....H.....
.....T.....
PRDM11_pteVam1     .....A...N...SI.....S.....H.....R.....
.....
PRDM11_eriEur1     .....V...EA.....I.....H.....S.....H.....R.....
.....
PRDM11_loxAfr3     .....EA...N...IS.....V.....V.....R.....
.O.....
PRDM11_echTel1     M.....EG...N...IS...T...LR.....Y.RN.....V.....C.....H.....R.....GQ.....
...T.....
PRDM11_dasNov2     .....EA...N...I.....S.....Q.....
.....V.....
PRDM11_homSap
VGIPDRRALTIPIQGMVEVKDTSGESDVRVNEVIPKGHIPGPYEQIISTQDKSAGFFSWLIVDKNNRYKSIDGSDETKANWMMRVVVISREEREQNLLAFQHSERIYPRACRDIRPGEWLRVWYSEDYMKRLHMSQETH
RNLAR

PRDM4_homSap
ESRARLGLPKQLVLRQSIIVGAEVGVWTGETIPVRTCFGPLIGQQSHSMEVAEWIDKAVNHIIWKIYHNGVLEFCIITTDENECSNMMFVVRKARNREEQNLVAYPHDGKIPFCTSQDIPPENELLYYSRDYAQQI
PRDM4_panTro2
.....
PRDM4_ponAbe2     .....A.....
.....
PRDM4_rheMac2
.....
PRDM4_papHam1
.....
PRDM4_calJac1     .....R.....
.....
PRDM4_tarSyr1     .....I.....H.....P...YN.F...N.....A.....
.....
PRDM4_micMur1     .....H.....A.....V.....
.....
PRDM4_otoGar1
.....
PRDM4_musMus      .....TD...A.....L.....V...T.....Y.....S...
...N.....
PRDM4_ratNor      .....TD...A.....S.V.....Y.....
.....
PRDM4_dipOrd1     .....A.....YI.....T.....
.....M.....
PRDM4_cavPor3     .....V...D...S.....G.....A.....R.....Y.....
.....M.....
PRDM4_oryCun2     .....Y.....
.....
PRDM4_vicPac1     .....Y.....
.....
PRDM4_turTru1     .....D.....S.....Y.....
.....
PRDM4_bosTau4     .....D.....Y.....
.....
PRDM4_equCab2     .....Y.....
.....
PRDM4_canFam2     .....V.....Y.....
.....
PRDM4_myoLuc1     .....V.....Y.Y.....
.....
PRDM4_pteVam1     .....I.....Y.....
.....
PRDM4_loxAfr3     .....D.....Y.....
.....
PRDM4_proCap1     .....D.....S.....AA.....Y.....
.....
PRDM4_echTel1     .....A.....V.....D.....N...F.....V...H.....H.....Y.....S...
.....M.....
PRDM4_dasNov2     .....P.....D.....SE...V.....Y.....
.....
PRDM4_choHof1     .P.....F...T...X.S..A.....D.....S.....A.....Y.....
.....

```

PRDM4_homSap
ESRRARLSLPLKQLVLRQSIIVGAEVGVWTGETIPVVRTCFGGLIGQQSHSMEVAEWTDKAVNHIIWKIYHNGVLEFCIITTDENECCNWMFVRKARNREBQNLVAYPHDGKIFPCTSDIPPENELLYSRDYAQOI

PRDM10_homSap
LTRARASLPLVLYIDRFLGGVFSKRRIPKRTQFGPVEGFLVRGSELKDCYIHLKVSLDKGRKERDLHEDLWFELSDETLCNWMFVRPAQNHLEQNLVAYQYGHVYVYTTIKNVEPKQELKVVWYAASYAEFVNQIHDII
SEEEK

PRDM10_panTro2D.....
PRDM10_ponAbe2D.....
PRDM10_papHam1D.....
PRDM10_calJac1D.....
PRDM10_micMur1D.....
PRDM10_otoGar1TD...A.....TR.....H...S.D...W.....
PRDM10_tupBellD.....Q.....
PRDM10_musMusD.....
PRDM10_ratNorD.....
PRDM10_dipOrd1D...N...D.....H.....
PRDM10_cavPor3E...D.....S.....
PRDM10_speTri1D.....
PRDM10_oryCun2D.....
PRDM10_ochPri2D.....
PRDM10_turTru1E...D.....
PRDM10_bosTau4E...D.....
PRDM10_equCab2E...D.....
PRDM10_felCat3E...E...D.....
PRDM10_canFam2E...D.....
PRDM10_myoLuc1E...D.....
PRDM10_pteVam1E...D.....E.....
PRDM10_eriEur1E...E...D.E.....Q.....
PRDM10_loxAfr3E...E...D.....
PRDM10_proCap1E...D.....
PRDM10_dasNov2E...D.....
PRDM10_choHof1E...D.....

PRDM10_homSap
LTRARASLPLVLYIDRFLGGVFSKRRIPKRTQFGPVEGFLVRGSELKDCYIHLKVSLDKGRKERDLHEDLWFELSDETLCNWMFVRPAQNHLEQNLVAYQYGHVYVYTTIKNVEPKQELKVVWYAASYAEFVNQIHDII
SEEEK

PRDM15_homSap
SSLPPNLEIRLEDGAEVGFPAITQLVKRTQFGPFESRRVAKWEKESAPFLKVFQKDGHPVCFDTSNEDDCNWMMLVRPAEAEHQNLTAHQGSDVYFTTSRDIIPPGTELRVWYAIFYAKKMDKPKLQAGSGVH

PRDM15_panTro2
PRDM15_gorGor1
PRDM15_ponAbe2
PRDM15_rheMac2
PRDM15_papHam1
PRDM15_calJac1V.....
PRDM15_tarSyr1C.SA.....V.....P.....R.....
PRDM15_micMur1C.A.A.....V.....PT.....
PRDM15_otoGar1C.S.....V.....P.....
PRDM15_musMusS.....D.....V.....L.PG.....K...A.....
PRDM15_ratNorS.....D.....V.....L.PG.....K...A.....
PRDM15_dipOrd1S.....D.....TV.....PG.....GH.....C.....E.....
PRDM15_cavPor3S.....D.....TV.....R.....PG.....F.Q.....C.....
PRDM15_ochPri2T.....V.....Q.G...F.....A.....
PRDM15_turTru1S.....V.....PG.....F.....R.....
PRDM15_bosTau4S.....V.....PG.....F.....R.....
PRDM15_equCab2S.....V.....A.....

```

.....C.S..
PRDM15_felCat3 ...S.....L-.....V.....A.....
.....C.A.
PRDM15_canFam2 ...S.....V.....VGP.....N.....A.....
.....CP.A.
PRDM15_myoLuc1 ...S.....V.....VGP.....D-.....
.....C.S..
PRDM15_pteVam1 ...SS....V.....V.....LAP.....F.....
.....CP...
PRDM15_loxAfr3 ...S.....T.....V.....V.H.....QD.....
.....CA.A.
PRDM15_proCap1 ...S.....T.....V.....V.H.....QD.....
.....CA...
PRDM15_echTel1 ...S.....T.....V.....VDH.....QD.....
.....SA.T.
PRDM15_dasNov2 ...S.....T.....V...R..R.....E.HG.....D.....A.....
.....C..AQ
PRDM15_homSap
SSLPNLEIRLELDGAEVGFATLQLVKRTQFGPFESRRVAKWEKESAPPLKVFQKDGHPVCFDTSNEDDCNMMMLVRPAEAEHQNLTAHQGSDVYFTTTSRDI PPGTELRVWYAAFYAKMKDKPMLKQAGSGVH

```

```

PRDM6_homSap
TSSAAAAAPPPELPEWLRDLPREVCLCTSTVPGLAYGICAAQRIQQGTWIGPFQGVLLPPEKQVQAGAVRNTQHLWEIYDQDGLQHFIDGGEPSKSSWMRYIRCARHCGEQNLTVVQYRSNIFYRACIDI PRGTELLVWY
NDSYTSFFGIPLQCIAQDEN
PRDM6_panTro2 .....S.....
PRDM6_gorGor1 .....S.....
PRDM6_ponAbe2 .....S.....
PRDM6_rheMac2 .....S.....
PRDM6_papHam1 .....S.....
PRDM6_calJac1 .....S.....
PRDM6_tarSyr1 .....C.....
PRDM6_micMur1 .....S.....
PRDM6_tupBell .....T.....
PRDM6_musMus .....S.....T.V.....
PRDM6_ratNor .....T.....
.....V.....
PRDM6_dipOrd1 .....D.....L.
.....H.....
PRDM6_speTri1 .....S.....H..
PRDM6_oryCun2 .....S.....
PRDM6_ochPri2 .....S.....
PRDM6_turTru1 .....T.....
PRDM6_bosTau4 .....S.....
PRDM6_equCab2 .....S.....
PRDM6_felCat3 .....S.....
PRDM6_canFam2 .....S.....
PRDM6_myoLuc1 .G......M.....
PRDM6_pteVam1 .....S.....
PRDM6_eriEur1 .T.S....A.R.....
PRDM6_sorAra1 .....A.....T..L.....
PRDM6_loxAfr3 .....S.....
PRDM6_dasNov2 .....S.....
PRDM6_choHof1 .....S.....
PRDM6_homSap
TSSAAAAAPPPELPEWLRDLPREVCLCTSTVPGLAYGICAAQRIQQGTWIGPFQGVLLPPEKQVQAGAVRNTQHLWEIYDQDGLQHFIDGGEPSKSSWMRYIRCARHCGEQNLTVVQYRSNIFYRACIDI PRGTELLVWY
NDSYTSFFGIPLQCIAQDEN

```