

Proline hydroxylation site 1 in the ODDD

Bf Hifa(L) GFFWDGEQALRDSPEDLTRVAPAAAGDAMIPLGFPSADVLFSSSLPDTST
 Bf Hifa(s) GFFWDGEQ-----DVLFG-SSLPDTST
 Hs HIF1A SLFDK----LKKEPDALILLAPAAAGDTIISLDFGSDNDETDDQQLEEV
 Mm Hif1a CLFDK----LKKEPDALILLAPAAAGDTIISLDFGSDDETETEDQQLEDV
 Xl Hif1a CLFDK----LKQEPESLTVLAPDAGDEIIPLDFSSGD---SDKPYEDV
 Dr Hif1a TLYNK----LKEEPEALTVLAPAAAGDAIISLDFNNSDS--DIQLLKEV
 Sp Hif1 PLYLAGCNSSQAVEEKLAYLAPTAGDVMIEILDPSDSQRMDLTSEFKEFN
 Tc Hif1a SDEEPGLTMLKDEPDDLTHLAPVAGDVCVPLDDHPPFLTDKMLDDFLLRD
 Pp Hif1a PEDQPYGVBLKDEPDDLTHLAPSGGDTCPLEVPVIFKPELDDVFTQI--

Proline hydroxylation site 2 in the ODDD

Bf Hifa(L) PSLALDTGQPIQNNIRTKAAGKLTKRPLTAEELSYRAPYIPAYQMLNPPNNAVLASLLETDRRQSVTSSRSY
 Bf Hifa(s) PSLALDTGQPIQNNIRTTAAGKLTKRPLTAEELSYRAPYIPAYQMLNPPNNAVLASLLETDRRQSVTSSRSY
 Hs HIF1A KLFAEDT--EAKNPFSTQDT-----DLDLEMLAPYIPM-----DDDFQLRSFDQLSPLESSASPE
 Mm Hif1a KLFAEDT--EAKNPFSTQDT-----DLDLEMLAPYIPM-----DDDFQLRSFDQLSPLENSPSPPS
 Xl Hif1a KLFAIDT--EAKAPFTTQET-----DLDLEMLAPYIPM-----DDDFQLRTFDQLSSLECDSSIPQT
 Dr Hif1a KLFAIDT--EAKTPFSTQPM-----EDLDLEMLAPYIPM-----DDDFQLRIPSPLDPLPSATHSVSA
 Sp Hif1 -----DELAMRAPYIPM-----GEDFDLSTDPILGMDPFTSETWM
 Tc Hif1a DSLSDED---RLSTFMNLHTE-----DESDLVAKAPYITMN----MGDDLPLLMSDDLMWSSSEKSRASP
 Pp Hif1a NETAHESYVNIELKVENQND-----LDEFDMRAPFIPL-----SNELMLLNQDDL MWGAQPD SLPMG

The CTAD, highlighting asparagine hydroxylation site

Bf Hifa(L) DLDDDF-----LPPLTRADVEVNAPIQ-TYKLLQGNDLMSALDQSAALF
 Bf Hifa(s) ALDDDF-----LPPLTRADVEVNAPIQ-TYKLLQGNDLMSALDQSAALF
 Hs HIF1A SMDESG-----LPQLTSYDCEVNAPIQGSRNLLQGEELLRALDQVN---
 Mm Hif1a SMDESG-----LPQLTSYDCEVNAPIQGSRNLLQGEELLRALDQVN---
 Xl Hif1a SFDGTV-----LPQLTGYDCEVNAPVHGTRNLLQGEELLRALDQAN---
 Dr Hif1a SLEGGSG-----LPQLTRYDCEVNAPVQDRHLLQGEELLRALDQVN---
 Sp Hif1 MPLGAV-----LPILITNLDAEVNAPLPNTNRLLQGEDLLQALDLTAPY-
 Tc Hif1a LSLLDPDATIPSLLDLTQQDFEVNAPVN-S-LLLQGTDLLTALDINGPI-
 Pp Hif1a LLLVDPDLTIPSLSELSQLDFEVNAPAN-IGNLLQGADLLMALDQA----