

P53-TAD2 p53-RD		
Rodentia	Spalax_judaei	ED1 LL SP ED V AN WLDD- SRHKK LM
Cetartiodactyla	Balaenoptera_ac	DD1 LL SP ED V AN WLDE- SRHKK LM
Carnivora	Odobenus_rosmar	DE- LL S EG V AN WLDA- SRHKK LM
Insectivora	Condylura_crist	EE- LL SS EN V AN WLDE- SHHKK LM
Sirenia	Trichechus_mana	DD- LL L T ED A ATWLES- SRHKK LM
Rodentia	Mus_musculus	DD1 LL PQDV E -FFEG- SRHKK TM
Cetartiodactyla	Bos_taurus	DD- LL PYTDV A TWLDE- SCHKK PM
Carnivora	Canis_lupus_fam	DE- LL L P ESVV N WLDE- SRHKK LM
Insectivora	Sorex_araneus	DD1 LL SP-DVENWLDK- SRHKK PM
Proboscidea	Loxodonta_afric	DD- LL L S ED T ANWLES- SRHKK PM

KLF1-TAD2		
Rodentia	Spalax_judaei	ERYPTCAWDPNVFLANF
Cetartiodactyla	Balaenoptera_ac	ERDAATFWDLDLLLTNF
Carnivora	Odobenus_rosmar	ERDSAAAWDLDLLLTNF
Insectivora	Condylura_crist	ERDEASAWDLDLFLT N F
Sirenia	Trichechus_mana	QRDEAVAWDLDLLLT N F
Rodentia	Mus_musculus	ERDVTCAWDPDLFLT N F
Cetartiodactyla	Bos_taurus	ERDETVAWDLDLLLT N F
Carnivora	Canis_lupus_fam	ERDSATAWDLDLLLT N F
Insectivora	Sorex_araneus	ERDTVSAWDLDLLLT N F
Proboscidea	Loxodonta_afric	ERDETVAWDLDLLLT N F

Fig. S2. TAD2 of KLF1 does not show hypoxia-specific patterns

p53-TAD2, p53-RD, and KLF1-TAD2 sequence alignments of species included in the paired experimental design. Species that are hypoxia tolerant are colored in red, species that are hypoxia sensitive are colored in blue, and stress-related patterns in p53 are marked in bold red letters.