

Additional file 4 Alignment of a fragment of chain B of insulin (4ins) and insulin-like proteins found in UniProtKB. The four residues participating in the structural motif discussed in the text and in Figure 3 are highlighted in bold. The three sequences which have a residue different than Tyr and Phe at the fourth position are underlined.

column 1 = sequence of fragment
column 2 = accession
column 3 = protein name
column 4 = organism followed by E-value

LVDALY-FVCGERGFY	P68992	Insulin Hydrolagus colliei (Spotted ratfish) (Pacific ratfish)	2.0×10 ⁻¹²
LVDALY-FVCGERGFY	P68991	Insulin Chimaera monstrosa (Rabbit fish)	2.0×10 ⁻¹²
LVDALY-FVCGERGFY	P13190	Insulin Callorhynchus milii (Elephant fish) (Australian ghost shark)	2.0×10 ⁻¹²
LVEALY-FVCGPKGFY	P12705	Insulin Torpedo marmorata (Marbled electric ray)	6.0×10 ⁻¹¹
LVEALY-FVCGPKGFY	P12704	Insulin Squalus acanthias (Spiny dogfish)	3.0×10 ⁻¹⁰
LVEALY-LVCGERGFY	P69048	Insulin Trachemys scripta (Red-eared slider turtle) (Pseudemys scripta)	1.0×10 ⁻¹⁷
LVEALY-LVCGERGFY	P67968	Insulin Meleagris gallopavo (Common turkey)	1.0×10 ⁻¹⁷
LVEALY-LVCGERGFY	P69047	Insulin Chrysemys dorsalis (Black-bellied slider turtle) (Trachemys dorsalis)	1.0×10 ⁻¹⁷
LVEALY-LVCGERGFY	P67969	Insulin Struthio camelus (Ostrich)	1.0×10 ⁻¹⁷
LVEALY-LVCGDRGFY	B5AK54	Insulin Xenopus tropicalis (Western clawed frog) (Silurana tropicalis)	2.0×10 ⁻¹⁵
LVEALY-LVCGDRGFY	A41G9V	Ins protein Xenopus tropicalis (Western clawed frog) (Silurana tropicalis)	2.0×10 ⁻¹⁵
LVEALY-LVCGDRGFY	B7ZQ91	Insulin-like growth factor 2 (Somatomedin A) Xenopus laevis (African clawed frog)	2.0×10 ⁻¹⁵
LVEALY-LVCGDRGFY	P12707	Insulin-2 Xenopus laevis (African clawed frog)	2.0×10 ⁻¹⁵
LVEALY-LVCGDRGFY	P12706	Insulin-1 Xenopus laevis (African clawed frog)	3.0×10 ⁻¹⁶
LVEALF-LVCGDRGFY	Q7LZ9M	Insulin Amphiuma tridactylum (three-toed salamander)	2.0×10 ⁻¹⁴
LVEALY-MVCGDRGFY	Q918Q7	PreproInsulin Rana pipiens (Northern leopard frog)	4.0×10 ⁻¹³
LVDALY-LVCGERGFY	P12703	Insulin Alligator mississippiensis (American alligator)	9.0×10 ⁻¹⁵
LVEALY-LVCGERGFY	P68243	Insulin Cairina moschata (Muscovy duck)	6.0×10 ⁻¹⁷
LVEALY-LVCGERGFY	P01333	Insulin Anas platyrhynchos (Domestic duck) (Anas boschas)	6.0×10 ⁻¹⁷
LVEALY-LVCGERGFY	P68245	Insulin Anser anser anser (Western graylag goose)	6.0×10 ⁻¹⁷
LVEALY-LVCGERGFY	Q7M0U6	Epidermal growth factor/single chain insulin ... Brevibacillus brevis (Bacillus brevis)	7.0×10 ⁻²⁰
LVEALY-LVCGERGFY	P01340	Insulin Katsuwonus pelamis (Skipjack tuna) (Bonito)	6.0×10 ⁻¹⁵
LVDALY-MVCGKGFY	Q90Z11	PreproInsulin Hiodon alosoides (goldeye)	9.0×10 ⁻¹³
LVDALY-MVCGKGFY	Q98TA8	Insulin Pantodon buchholzi (Freshwater butterflyfish)	9.0×10 ⁻¹³
LVEALF-LVCGERGFY	Q98TA9	PreproInsulin Gnathonemus petersii (elephantnose fish)	9.0×10 ⁻¹³
LVDALY-MVCGDRGFY	Q98TA7	PreproInsulin Osteoglossum bicirrhosum (silver arawana)	3.0×10 ⁻¹²
LVEALY-LVCGERGFY	Q98TB0	PreproInsulin Chitala chitala (clown knifefish)	1.0×10 ⁻¹⁶
LVDALY-LVCGERGFY	B5KDT4	Insulin Salmo salar (Atlantic salmon)	2.0×10 ⁻¹²
LVDALY-LVCGERGFY	B5K6U5	Insulin Salmo salar (Atlantic salmon)	2.0×10 ⁻¹²
LVDALY-LVCGERGFY	A3RID6	Preproinsulin 1 Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri)	7.0×10 ⁻¹⁴
LVDALY-LVCGERGFY	P04667	Insulin Oncorhynchus keta (Chum salmon)	5.0×10 ⁻¹⁵
LVDALY-LVCGERGFY	B5XEB7	Insulin Salmo salar (Atlantic salmon)	7.0×10 ⁻¹⁴
LVDALY-LVCGERGFY	A3RID7	Preproinsulin 2 Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri)	7.0×10 ⁻¹⁴
LVDALY-LVCGERGFY	P68999	Insulin Oncorhynchus kisutch (Coho salmon)	7.0×10 ⁻¹⁴
LVDALY-LVCGERGFY	P68990	Insulin Oncorhynchus gorbuscha (Pink salmon) (Humpback salmon)	7.0×10 ⁻¹⁴
LVDALY-LVCGPTGFY	A5PF52	PreproInsulin Danio rerio (Zebrafish) (Brachydanio rerio)	2.0×10 ⁻¹¹
LVDALY-LVCGPTGFY	Q73727	Insulin Danio rerio (Zebrafish) (Brachydanio rerio)	2.0×10 ⁻¹¹
LVDALY-LVCGPTGFY	Q9DD55	Insulin Danio rerio (Zebrafish) (Brachydanio rerio)	2.0×10 ⁻¹¹
LVDALY-LVCGPTGFY	Q90ZN4	PreproInsulin Catla catla (catla)	2.0×10 ⁻¹¹
LVDALY-LVCGPTGFY	P01335	Insulin Cyprinus carpio (Common carp)	2.0×10 ⁻¹¹
LVDALY-LVCGPTGFY	Q98TB1	PreproInsulin Catostomus commersonii (White sucker)	2.0×10 ⁻¹¹
LVDALY-LVCGPSGFY	P81881	Insulin Piaractus mesopotamicus (Pacu)	7.0×10 ⁻¹²
LVDALY-LVCGDRGFY	Q98TB2	PreproInsulin Ambloplites rupestris (Rock bass)	4.0×10 ⁻¹⁴
LVDALY-LVCGDRGFY	Q18NR0	Insulin Seriola dumerili (Mediterranean greater amberjack) (Caranx dumerili)	4.0×10 ⁻¹⁴
LVDALY-LVCGDRGFY	P69045	Insulin Lophius americanus (American goosefish) (Anglerfish)	4.0×10 ⁻¹⁴
LVDALY-LVCGERGFY	Q9W7R2	Insulin Verasper moseri (Barfin flounder)	3.0×10 ⁻¹⁵
LVDALY-LVCGDRGFY	P81025	Insulin Oreochromis niloticus (Nile tilapia) (Tilapia nilotica)	3.0×10 ⁻¹³
LVDALY-LVCGDRGFY	Q4SP78	Chromosome 7 SCAF14536, whole genome shotgun ... Tetraodon nigroviridis (Green puffer)	4.0×10 ⁻¹⁴
LVDALY-LVCGDRGFY	P01339	Insulin Thunnus thynnus (Atlantic bluefin tuna) (Scomber thynnus)	4.0×10 ⁻¹⁴
LVDALY-LVCGDRGFY	P69046	Insulin Lophius piscatorius (Allmouth goosefish) (Anglerfish)	4.0×10 ⁻¹⁴
LVDALY-LVCGDRGFY	P01336	Insulin Gadus callarias (Baltic cod)	4.0×10 ⁻¹⁴
LVDALY-LVCGDRGFY	P01337	Insulin-1 Batrachoididae sp. (Toadfish)	4.0×10 ⁻¹⁴
LVDALY-LVCGDRGFY	P01338	Insulin 2 Batrachoididae sp. (Toadfish)	2.0×10 ⁻¹²
LVDALY-LVCGERGFY	Q09477	Insulin Platicthys flesus (European flounder) (Pleuronectes flesus)	3.0×10 ⁻¹⁵
LVEALY-LVCGDRGFY	Q05K39	Insulin Oryzias latipes (Medaka fish) (Japanese ricefish)	5.0×10 ⁻¹⁶
LVDALH-LVCGDRGFY	Q18NR1	Insulin Seriola dumerili (Mediterranean greater amberjack) (Caranx dumerili)	9.0×10 ⁻⁸
LVDALY-LVCGDRGFY	Q4SP78	Insulin Myoxocephalus scorpius (Shorthorn sculpin) (Cottus scorpius)	4.0×10 ⁻¹⁴
LVDALY-LVCGPRGFY	Q2QA9J	Preproinsulin 2 Danio rerio (Zebrafish) (Brachydanio rerio)	1.0×10 ⁻¹⁰
LVEALY-LVCGSNGFFY	P42633	Insulin Anguilla rostrata (American eel) (Muraena rostrata)	2.0×10 ⁻¹¹
LVEALY-LVCGERGFY	P09476	Insulin Atractosteus spatula (Alligator gar) (Lepisosteus spatula)	9.0×10 ⁻¹⁵
LVEALF-LVCGESGFY	P29335	Insulin Amia calva (Bowfin)	2.0×10 ⁻¹²
LVEALY-LVCGDRGFY	P68987	Insulin Petromyzon marinus (Sea lamprey)	5.0×10 ⁻¹³
LVEALY-LVCGDRGFY	P68988	Insulin Lampetra fluviatilis (European river lamprey) (Petromyzon fluviatilis)	5.0×10 ⁻¹³
LVDALY-LVCGVRFY	P01342	Insulin Myxine glutinosa (Atlantic hagfish)	3.0×10 ⁻⁵
LVEALY-LVCGNRGFY	P0C236	Insulin Polypterus senegalus (Senegal bichir)	3.0×10 ⁻¹³
LVEALY-LVCGERGFY	Q7LZ9N	Insulin I1 Polyodon spathula (North American paddlefish) (Squalus spathula)	6.0×10 ⁻¹⁷
LVEALY-LVCGERGFY	P81423	Insulin Acipenser guldenstadti (Caspian sturgeon) (Russian sturgeon)	6.0×10 ⁻¹⁷
LVEALY-LVCGERGFY	P01310	Insulin Equus caballus (Horse)	1.0×10 ⁻²⁰
LVEALY-LVCGERGFY	P01316	Insulin Elephas maximus (Indian elephant)	7.0×10 ⁻²⁰
LVEALY-LVCGERGFY	Q52PU3	PreproInsulin Felis catus (Cat) (Felis silvestris catus)	1.0×10 ⁻²⁰
LVEALY-LVCGERGFY	P06306	Insulin Felis catus (Cat) (Felis silvestris catus)	1.0×10 ⁻²⁰
LVEALY-LVCGERGFY	Q7M217	Insulin Canavalia ensiformis (Jack bean) (Horse bean)	1.0×10 ⁻²⁰
LVEALY-LVXGERGFY	P83770	Insulin-like protein Vigna unguiculata (Cowpea)	7.0×10 ⁻¹⁸
LVEALY-LVCGERGFY	P01320	Insulin Camelus dromedarius (Dromedary) (Arabic camel)	2.0×10 ⁻¹⁹
LVEALY-LVCGERGFY	Q25C78	ProInsulin Bubalus bubalis (Domestic water buffalo)	1.0×10 ⁻²⁰
LVEALY-LVCGERGFY	P01317	Insulin Bos taurus (Bovine)	1.0×10 ⁻²⁰
LVEALY-LVCGERGFY	A5PJ22	Ins protein Bos taurus (Bovine)	1.0×10 ⁻²⁰
LVEALY-LVCGERGFY	P01318	Insulin Ovis aries (Sheep)	1.0×10 ⁻²⁰
LVEALY-LVCGERGFY	P01319	Insulin Capra hircus (Goat)	1.0×10 ⁻²⁰
LVEALY-LVCGERGFY	P01314	Insulin Balaenoptera borealis (Sei whale) (Pollack whale)	1.0×10 ⁻²⁰
LVEALY-LVCGERGFY	B5PWC2	Insulin (Predicted) Otlemur garnettii (Small-eared galago) (Garnett's greater bushbaby)	1.0×10 ⁻²⁰
LVEALY-LVCGERGFY	P18109	Insulin Didelphis marsupialis virginiana (North American opossum)	2.0×10 ⁻¹⁹
LVEALY-LVCGERGFY	P67974	Insulin Physeter macrocephalus (Sperm whale) (Physeter catodon)	1.0×10 ⁻²⁰
LVEALY-LVCGERGFY	B3RPH3	Insulin (Predicted) Sorex araneus (Eurasian common shrew) (European shrew)	4.0×10 ⁻¹⁹
LVEALY-LVCGERGFY	P67973	Insulin Balaenoptera physalus (Finback whale) (Common rorqual)	1.0×10 ⁻²⁰

LVEALY-LVCGERGFY Q8HZ81 Insulin Gorilla gorilla (Western Gorilla) 9.0×10-14
LVEALY-LVCGERGFY Q8HZ80 Insulin Pongo pygmaeus (Bornean orangutan) 9.0×10-14
LVEALY-LVCGERGFY P30410 Insulin Pan troglodytes (Chimpanzee) 7.0×10-20
LVEALY-LVCGERGFY P01308 Insulin Homo sapiens (Human) 7.0×10-20
LVEALY-LVCGERGFY Q6YK33 Insulin Gorilla gorilla gorilla (Lowland gorilla) 7.0×10-20
LVEALY-LVCGERGFY Q8HXV2 Insulin Pongo pygmaeus (Bornean orangutan) 7.0×10-20
LVEALY-LVCGERGFY P30406 Insulin Macaca fascicularis (Crab-eating macaque) (Cynomolgus monkey) 7.0×10-20
LVEALY-LVCGERGFY P30407 Insulin Cercopithecus aethiops (Green monkey) (Grivet) 7.0×10-20
LVEALY-LVCGERGFY A6XGL2 Insulin Homo sapiens (Human) 7.0×10-20
LVEALY-LVCGERGFY P67971 Insulin Saimiri sciureus (Common squirrel monkey) 7.0×10-18
LVEALY-LVCGERGFY P67972 Insulin Aotus trivirgatus (Night monkey) (Douroucouli) 7.0×10-18
LVEALY-LVCGERGFY B2KIN7 Proinsulin (Predicted) Rhinolophus ferrumequinum (Greater horseshoe bat) 1.0×10-20
LVEALY-LVCGERGFY P01315 Insulin Sus scrofa (Pig) 1.0×10-20
LVEALY-LVCGERGFY P01321 Insulin Canis familiaris (Dog) (Canis lupus familiaris) 1.0×10-20
LVEALY-LVCGERGFY Q1WM24 InsIGF long transcript variant Homo sapiens (Human) 7.0×10-20
LVEALY-LVCGERGFY C9JNM5 Uncharacterized protein Homo sapiens (Human) 7.0×10-20
LVEALY-LVCGERGFY D2HDS9 Putative uncharacterized protein Ailuropoda melanoleuca (Giant panda) 1.0×10-20
LVEALY-LVCGERGFY D32595 Uncharacterized protein Mus musculus (Mouse) 7.0×10-18
LVEALY-LVCGERGFY D3YUW5 Uncharacterized protein Mus musculus (Mouse) 7.0×10-18
LVEALY-LVCGERGFY D3Z596 Uncharacterized protein Mus musculus (Mouse) 7.0×10-18
LVEALY-LVCGERGFY Q6XVL6 PreproInsulin Passer domesticus (House sparrow) (Fringilla domestica) 6.0×10-18
LVEALY-LVCGERGFY Q6XVL4 PreproInsulin Pica pica (Black-billed magpie) 6.0×10-17
LVEALY-LVCGERGFY Q6XVK7 PreproInsulin Turdus merula (Blackbird) 6.0×10-18
LVEALY-LVCGERGFY Q6XVNO PreproInsulin Aptenodytes forsteri (Emperor penguin) 1.0×10-17
LVEALY-LVCGERGFY Q6XVM3 PreproInsulin Fulmarus glacialis (Northern fulmar) 1.0×10-17
LVEALY-LVCGERGFY Q6XVL7 PreproInsulin Pagodroma nivea (lesser snow-petrel) 1.0×10-17
LVEALY-LVCGERGFY Q6XVM4 PreproInsulin Falco tinnunculus (common kestrel) 1.0×10-16
LVEALY-LVCGERGFY Q6XVL9 PreproInsulin Melopsittacus undulatus (Budgerigar) 1.0×10-16
LVEALY-LVCGERGFY Q6XVM2 PreproInsulin Gallinula chloropus (Common moorhen) 1.0×10-16
LVEALY-LVCGERGFY Q6XVM8 PreproInsulin Ciconia ciconia (White stork) 1.0×10-17
LVEALY-LVCGERGFY Q6XVM6 PreproInsulin Thalassarche melanophrys (Black-browed albatross) 1.0×10-17
LVEALY-LVCGERGFY Q6XVL8 PreproInsulin Nycticorax nycticorax hoactli 1.0×10-17
LVEALY-LVCGERGFY Q6XVL1 PreproInsulin Strix aluco (Tawny owl) 1.0×10-17
LVEALY-LVCGERGFY Q6XVK9 PreproInsulin Sula sula (Red-footed booby) 1.0×10-17
LVEALY-LVCGERGFY Q6XVL5 PreproInsulin Phaethon aethereus (Red-billed tropicbird) 1.0×10-17
LVEALY-LVCGERGFY Q6XVL2 PreproInsulin Rissa tridactyla (Black-legged kittiwake) 1.0×10-17
LVEALY-LVCGERGFY Q6XVK6 PreproInsulin Uria aalge (Common guillemot) (Common murre) 1.0×10-17
LVEALY-LVCGERGFY Q6XVL0 PreproInsulin Struthio camelus (Ostrich) 1.0×10-17
LVEALY-LVCGERGFY Q6XVL3 PreproInsulin Rhea americana (Greater rhea) (Common rhea) 8.0×10-16
LVEALY-LVCGERGFY Q6XVN3 PreproInsulin Anas crecca (Green-winged teal) 6.0×10-17
LVEALY-LVCGERGFY Q6XVN2 PreproInsulin Anas platyrhynchos (Domestic duck) (Anas boschas) 6.0×10-17
LVEALY-LVCGERGFY Q6XVM9 PreproInsulin Cairina moschata (Muscovy duck) 6.0×10-17
LVEALY-LVCGERGFY Q6XVK8 PreproInsulin Tadorna tadorna (common shelduck) 6.0×10-17
LVEALY-LVCGERGFY Q6XVM5 PreproInsulin Dromaius novaehollandiae (Emu) 1.0×10-17
LVEALY-LVCGERGFY Q6XVM7 PreproInsulin Columba livia (Domestic pigeon) 1.0×10-17
LVEALY-LVCGERGFY Q6XVM1 PreproInsulin Gallus gallus (Chicken) 1.0×10-17
LVEALY-LVCGERGFY Q6XVM0 PreproInsulin Meleagris gallopavo (Common turkey) 1.0×10-17
LVEALY-LVCGERGFY P67970 Insulin Gallus gallus (Chicken) 1.0×10-17
LVEALY-LVCGERGFY P51463 Insulin Selasphorus rufus (Rufous hummingbird) 1.0×10-18
LVEALY-LVCGERGFY P21563 Insulin Rodentia sp. 1.0×10-17
LVEALY-LVCGERGFY A0ELZ0 PreproInsulin Meriones unguiculatus (Mongolian jird) (Mongolian gerbil) 7.0×10-20
LVEALY-LVCGERGFY Q62587 Insulin Psammomys obesus (Fat sand rat) 7.0×10-20
LVEALY-LVCGERGFY A0ELZ1 PreproInsulin Volemys kikuchii (Taiwanese vole) (Microtus kikuchii) 7.0×10-20
LVEALY-LVCGERGFY P01313 Insulin Cricetulus longicaudatus (Long-tailed dwarf hamster) (Chinese hamster) 7.0×10-20
LVEALY-LVCGERGFY Q5EEX1 Insulin II Mus musculus (Mouse) 7.0×10-18
LVEALY-LVCGERGFY D0EY27 Insulin-2 Mus musculus (Mouse) 7.0×10-18
LVEALY-LVCGERGFY Q21D88 Insulin II Mus spretus (Western Mediterranean mouse) (Algerian mouse) 7.0×10-18
LVEALY-LVCGERGFY P01326 Insulin-2 Mus musculus (Mouse) 7.0×10-18
LVEALY-LVCGERGFY A0ELY8 Preproinsulin 2 Mus caroli (Ryukyu mouse) (Ricefield mouse) 7.0×10-18
LVEALY-LVCGERGFY E0CXX7 Uncharacterized protein Mus musculus (Mouse) 7.0×10-18
LVEALY-LVCGERGFY A0ELY6 Preproinsulin 2 Rattus losea (lesser rice-field rat) 7.0×10-18
LVEALY-LVCGERGFY P01323 Insulin-2 Rattus norvegicus (Rat) 7.0×10-18
LVEALY-LVCGERGFY A0ELY9 Preproinsulin 2 Niviventer coxingi (Coxing's white-bellied rat) 7.0×10-18
LVEALY-LVCGERGFY A0ELY7 Preproinsulin 2 Apodemus semotus (Taiwan field mouse) (Formosan wood mouse) 7.0×10-18
LVEALY-LVCGERGFY A0ELY2 Preproinsulin 1 Rattus losea (lesser rice-field rat) 1.0×10-17
LVEALY-LVCGERGFY P01322 Insulin-1 Rattus norvegicus (Rat) 1.0×10-17
LVEALY-LVCGERGFY A0ELY5 Preproinsulin 1 Niviventer coxingi (Coxing's white-bellied rat) 1.0×10-17
LVEALY-LVCGERGFY Q54517 Insulin 1 Mus musculus (Mouse) 1.0×10-17
LVEALY-LVCGERGFY P01325 Insulin-1 Mus musculus (Mouse) 1.0×10-17
LVEALY-LVCGERGFY A0ELY4 Preproinsulin 1 Mus caroli (Ryukyu mouse) (Ricefield mouse) 8.0×10-17
LVEALY-LVCGERGFY A0ELY3 Preproinsulin 1 Apodemus semotus (Taiwan field mouse) (Formosan wood mouse) 1.0×10-17
LVEALY-LVCGERGFY P01324 Insulin Acomys cahirinus (Egyptian spiny mouse) 1.0×10-19
LVEALY-LVCGERGFY Q7M0G1 Insulin Cricetidae sp. (Hamster) 7.0×10-20
LVEALY-LVCGERGFY B7NZU4 Insulin (Predicted) Oryctolagus cuniculus (Rabbit) 7.0×10-20
LVEALY-LVCGERGFY P01311 Insulin Oryctolagus cuniculus (Rabbit) 7.0×10-20
LVEALY-LVCGERGFY Q91X13 Insulin Spermophilus tridecemlineatus (Thirteen-lined ground squirrel) (Ictidomys tridecemlineatus) 7.0×10-20
LVDALY-LVCGDRGFY Q5BVF6 Insulin Chinchilla chinchilla (Short-tailed chinchilla) (Chinchilla brevicaudata) 1.0×10-16
LVDALY-LVCGDRGFY P01327 Insulin Chinchilla chinchilla (Short-tailed chinchilla) (Chinchilla brevicaudata) 1.0×10-16
LVDALY-LVCGDRGFY Q5BVF5 Insulin Chinchilla lanigera (Long-tailed chinchilla) (Chinchilla villidera) 1.0×10-16
LVEALY-LVCGDRGFY Q5BVF4 Insulin Lagidium viscacia (southern viscacha) 6.0×10-12
LVDALY-LVCGDRGFY Q5BVE9 Insulin Dolichotis patagonum (Patagonian cavy) 7.0×10-13
LVDALY-LVCGDRGFY Q5BVE8 Insulin Hydrochoerus hydrochaeris (Capybara) (Carpincho) 4.0×10-11
LVETLY-SVCQDDGFY Q5BVF3 Insulin Cavia porcellus (Guinea pig) 9.0×10-8
LVETLY-SVCQDDGFY Q5BVF2 Insulin Cavia aperea (Brazilian guinea pig) 9.0×10-8
LVETLY-SVCQDDGFY P01329 Insulin Cavia porcellus (Guinea pig) 9.0×10-8
LVETLY-EVCRDKGFY Q5BVF1 Insulin Microcavia niata 2.0×10-7
LVDALY-LVCKDKGFY Q5BVF0 Insulin Galea musteloides (Common yellow-toothed cavy) 1.0×10-6
LVEALY-MACGDKGFY Q5BVE7 Insulin Dasyprocta punctata (punctate agouti) 3.0×10-16
LVEALY-LVCGNDGFY P01328 Insulin Hystrix cristata (North African crested porcupine) 2.0×10-15
LVEALY-LVCGKGFY Q9TQV7 Insulin Ornithorhynchus anatinus (Duckbill platypus) 3.0×10-14
LVEALY-LVCGKGFY P12708 Insulin Zaocys dhumades (Big-eyed ratsnake) (Ptyas dhumades) 4.0×10-12
LVEALY-LVCGKGFY P01334 Insulin Crotalus atrox (Western diamondback rattlesnake) 4.0×10-12
LVEALY-MTCGHNG-FY Q5BVE0 Insulin Ctenomys leucodon (White-toothed tuco-tuco) 2.0×10-6
LVEALY-MTCGHNG-FY Q5BVD9 Insulin Ctenomys rionegrensis 2.0×10-6
LVEALY-MTCGHNG-FY Q5BVD8 Insulin Ctenomys robore 2.0×10-6
LVEALY-MTCGHNG-FY Q5BVE6 Insulin Typanoctomys barrerae (Plains viscacha rat) 1.0×10-5
LVEALY-MTCGRSG-FY Q5BVE3 Insulin Spalacopus cyanus (Coruro) 2.0×10-5
LVEALY-MTCGHS-FY Q5BVE5 Insulin Octomys mimax (viscacha rat) 1.0×10-5
LVEALY-MTCGHS-FY Q5BVE4 Insulin Aconaemys fuscus 1.0×10-5
LVEALY-MTCGHNG-FY Q5BVE1 Insulin Octodontomys gliroides (Mountain degu) 3.0×10-5

LVEALY-MTCGRSG-FY Q5BVE2 Insulin Octodon degus (Degu) (Sciurus degus) 2.0×10⁻⁵
LVEALY-MTCGRSG-FY P17715 Insulin Octodon degus (Degu) (Sciurus degus) 2.0×10⁻⁵
LVDTLQ-SVCRHRG-FY P01330 Insulin Myocastor coypus (Coypu) (Nutria) 2.0×10⁻³
LVDTLQ-SVCRHRG-FY Q5BV07 Insulin Haplorhina (Armed rat) (Echimyus gymmurus) 5.0×10⁻³
LVDTLQ-SVCKHRG-FY P01331 Insulin Proechimys guairae (Guaira spiny rat) 3.0×10⁻³
LVDALF-LLCERNG-FY Q5BV06 Insulin Abrocoma bennettii (Bennett's chinchilla rat) 6.0×10⁻³
LVDTLQ-FICGERGFYA Q4T1L5 Chromosome 1 SCAF10546, whole genome shotgun ... Tetraodon nigroviridis (Green puffer) 3.0×10⁻⁷
LVDALQ-FVCGDRGFYF Q8SQC4 Insulin-like growth factor 1 Trichosurus vulpecula (Brush-tailed possum) 1.6×10⁻²
LVDALQ-FVCGDRGFYF D7PCU0 Insulin-like growth factor 1 Trichosurus vulpecula (Brush-tailed possum) 1.6×10⁻²
LVDALQ-FVCGDRGFYF B7T506 Insulin-like growth factor-1 Macropus eugenii (Tamar wallaby) 1.6×10⁻²
LVDALQ-FVCGDRGFYF A2JRL3 Insulin-like growth factor I Cynops pyrrhogaster (Japanese common newt) 3.8×10⁻²
LVDALQ-FVCGDRGFYF Q14WA7 Insulin-like growth factor I Anser anser (domestic goose) 9.1×10⁻²
LVDALQ-FVCGDRGFYF A21T63 Insulin-like growth factor-I Anas platyrhynchos (Domestic duck) (Anas boschas) 9.1×10⁻²
LVDALQ-FVCGDRGFYF A7LKM7 Insulin-like growth factor 1 Anas platyrhynchos (Domestic duck) (Anas boschas) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q9G348 Insulin-like growth factor-1 Anser anser (domestic goose) 9.1×10⁻²
LVDALQ-FVCGDRGFYF C5J073 Insulin-like growth factor I Gallus gallus (Chicken) 9.1×10⁻²
LVDALQ-FVCGDRGFYF P18254 Insulin-like growth factor I Gallus gallus (Chicken) 9.1×10⁻²
LVDALQ-FVCGDRGFYF P51462 Insulin-like growth factor I Coturnix coturnix japonica (Japanese quail) (Coturnix japonica) 9.1×10⁻²
LVDALQ-FVCGDRGFYF O93380 Insulin-like growth factor-I Meleagris gallopavo (Common turkey) 9.1×10⁻²
LVDALQ-FVCGDRGFYF B3QC06 Insulin-like growth factor 1 Eospalax baileyi (Plateau zokor) (Myospalax baileyi) 9.1×10⁻²
LVDALQ-FVCGDRGFYF B3QC07 Insulin-like growth factor 1 Ochotona curzoniae (Black-lipped pika) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q4JHY5 Insulin-like growth factor 1 Cervus nippon (Sika deer) 9.1×10⁻²
LVDALQ-FVCGDRGFYF A6NB21 Insulin-like growth factor 1 Bos gaurus frontalis (Domestic gayal) (Bos frontalis) 9.1×10⁻²
LVDALQ-FVCGDRGFYF D21J70 Insulin-like growth factor 1 Bubalus bubalis (Domestic water buffalo) 9.1×10⁻²
LVDALQ-FVCGDRGFYF P07455 Insulin-like growth factor I Bos taurus (Bovine) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q9N1C1 Insulin-like growth factor I Bos taurus (Bovine) 9.1×10⁻²
LVDALQ-FVCGDRGFYF D2DS56 Insulin like growth factor-1 Capra hircus (Goat) 9.1×10⁻²
LVDALQ-FVCGDRGFYF P51457 Insulin-like growth factor I Capra hircus (Goat) 9.1×10⁻²
LVDALQ-FVCGDRGFYF B5AM74 Insulin-like growth factor I Ovis aries (Sheep) 9.1×10⁻²
LVDALQ-FVCGDRGFYF A0FJ28 Insulin-like growth factor I Ovis aries (Sheep) 9.1×10⁻²
LVDALQ-FVCGDRGFYF P10763 Insulin-like growth factor I Ovis aries (Sheep) 9.1×10⁻²
LVDALQ-FVCGDRGFYF P10763-3 Isoform C Ovis aries (Sheep) 9.1×10⁻²
LVDALQ-FVCGDRGFYF P10763-2 Isoform A Ovis aries (Sheep) 9.1×10⁻²
LVDALQ-FVCGDRGFYF A0N8V2 Insulin-like growth factor-I (2) Ovis aries (Sheep) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q000X1 Insulin-like growth factor I Cervus elaphus (Red deer) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q45QB4 Insulin-like growth factor I Sus scrofa (Pig) 9.1×10⁻²
LVDALQ-FVCGDRGFYF P16545 Insulin-like growth factor I Sus scrofa (Pig) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q0PPP3 Class 1 insulin-like growth factor I Sus scrofa (Pig) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q0PPP2 Class 2 insulin-like growth factor I Sus scrofa (Pig) 9.1×10⁻²
LVDALQ-FVCGDRGFYF A7LHD8 Insulin-like growth factor 1 Equus caballus (Horse) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q6JLX1 Insulin-like growth factor I Ailuropoda melanoleuca (Giant panda) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q68LC0 Insulin-like growth factor I Pygathrix roxellana (Golden snub-nosed monkey) (Rhinopithecus roxellana) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q6IVA5 Insulin-like growth factor I Ailuurus fulgens (Lesser panda) (Red panda) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q6GUL6 Insulin-like growth factor I Panthera tigris altaica (Siberian tiger) 9.1×10⁻²
LVDALQ-FVCGDRGFYF B7UCD1 Insulin-like growth factor I Mustela vison (American mink) (Neovison vison) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q9NP10 IGF1 protein Homo sapiens (Human) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q14620 Insulin-like growth factor 1 (Somatomedin C),... Homo sapiens (Human) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q5U743 Insulin-like growth factor 1 (Somatomedin C) Homo sapiens (Human) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q59GC5 Insulin-like growth factor 1 (Somatomedin C);... Homo sapiens (Human) 9.1×10⁻²
LVDALQ-FVCGDRGFYF P05019-2 Isoform 2 Homo sapiens (Human) 9.1×10⁻²
LVDALQ-FVCGDRGFYF B0FBP3 Insulin-like growth factor 1 Vulpes lagopus (Arctic fox) (Alopex lagopus) 9.1×10⁻²
LVDALQ-FVCGDRGFYF P33712 Insulin-like growth factor I Canis familiaris (Dog) (Canis lupus familiaris) 9.1×10⁻²
LVDALQ-FVCGDRGFYF P17647 Insulin-like growth factor I Cavia porcellus (Guinea pig) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q95222-2 Isoform IGF-1A Oryctolagus cuniculus (Rabbit) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q28933 Insulin-like growth factor I Suncus murinus (Asian house shrew) (Musk shrew) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q6GVY9 Insulin-like growth factor 1 Sus scrofa (Pig) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q95222 Insulin-like growth factor I Oryctolagus cuniculus (Rabbit) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q4J174 Insulin-like growth factor 1 Bubalus bubalis (Domestic water buffalo) 9.1×10⁻²
LVDALQ-FVCGDRGFYF D2H1S1 Putative uncharacterized protein Ailuropoda melanoleuca (Giant panda) 9.1×10⁻²
LVDALQ-FVCGDRGFYF D8L628 Insulin-like growth factor I Sus scrofa (Pig) 9.1×10⁻²
LVDALQ-FVCGDRGFYF D8L627 Insulin-like growth factor I Sus scrofa (Pig) 9.1×10⁻²
LVDALQ-FVCGDRGFYF E2R442 Uncharacterized protein Canis familiaris (Dog) (Canis lupus familiaris) 9.1×10⁻²
LVDALQ-FVCGDRGFYF E7ESN8 Uncharacterized protein Homo sapiens (Human) 9.1×10⁻²
LVDALQ-FVCGDRGFYF P51458 Insulin-like growth factor I Equus caballus (Horse) 9.1×10⁻²
LVDALQ-FVCGDRGFYF P05019 Insulin-like growth factor I Homo sapiens (Human) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q13429 Insulin-like growth factor-I Homo sapiens (Human) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q6GVY8 Insulin-like growth factor 1 Sus scrofa (Pig) 9.1×10⁻²
LVDTLQ-FVCGDRGFYF Q9XI57 Prepro-insulin-like growth factor I Acanthopagrus schlegelii (Black porgy) 9.1×10⁻²
LVDTLQ-FVCGDRGFYF A5JSH0 Insulin-like growth factor I Sparus aurata (Gilthead sea bream) 9.1×10⁻²
LVDTLQ-FVCGDRGFYF Q4G1F3 Insulin-like growth factor 1 Sparus aurata (Gilthead sea bream) 9.1×10⁻²
LVDTLQ-FVCGDRGFYF B2ZR77 Insulin-like growth factor I Hippoglossus hippoglossus (Atlantic halibut) (Pleuronectes hippoglossus) 9.1×10⁻²
LVDTLQ-FVCGDRGFYF A6XBL3 Insulin-like growth factor-I Dentex dentex (common dentex) 9.1×10⁻²
LVDTLQ-FVCGDRGFYF A8CG79 Preproinsulin-growth factor I Pagrus auriga 9.1×10⁻²
LVDTLQ-FVCGDRGFYF A9XU11 Insulin-like growth factor 1 isoform b Sparus aurata (Gilthead sea bream) 9.1×10⁻²
LVDTLQ-FVCGDRGFYF Q56V57 Insulin-like growth factor I Rhabdosargus sarba (goldlined seabream) 9.1×10⁻²
LVDTLQ-FVCGDRGFYF A9XU12 Insulin-like growth factor 1 isoform c Sparus aurata (Gilthead sea bream) 9.1×10⁻²
LVDTLQ-FVCGDRGFYF B0Z829 Insulin-like growth factor 1 Amphiprion clarkii (Clark's amemonefish) 9.1×10⁻²
LVDTLQ-FVCGDRGFYF A2IX61 Insulin-like growth factor I Cottus kazika 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q91442 Insulin-like growth factor I Squalus acanthias (Spiny dogfish) 9.1×10⁻²
LVDALQ-FVCGDRGFYF Q8AV14 Insulin-like growth factor Petromyzon marinus (Sea lamprey) 1.6×10⁻²
LVDTLQ-FVCGDRGFYF P22618 Insulin-like growth factor Myxine glutinosa (Atlantic hagfish) 5.0×10⁻²