

TABLE 1. Ortholog searches

WTX/AMER1					
Species	Ensembl Prot seq	<i>In silico</i> prediction	NCBI	Chromosomal / Scaffold location	abbreviations
Placental mammals					
Human (<i>Homo sapiens</i>)	1135 aa			Chr X	Hu
Mouse (<i>Mus musculus</i>)	1132 aa			Chr X	Mus
Chimpanzee (<i>Pan troglodytes</i>)	1127 aa			Chr X	Chimp
Gorilla (<i>Gorilla gorilla</i>)	1136 aa			scaffold_3408: 29,933-33,343	Go
Macaque (<i>Macaca mulatta</i>)	803 aa	1134 aa*	XM_001096922	Chr X	Mac
Orangutan (<i>Pongo pygmaeus</i>)	805 aa	1136 aa*		Chr X	Pong
Mouse lemur (<i>Microcebus murinus</i>)	800 aa	1145 aa*		scaffold_6289: 48,420-55,529	Micro
Hyrax (<i>Procavia capensis</i>)	1149 aa			GeneScaffold_6690: 33,430-36,879	Hyr
Megabat (<i>Pteropus vampyrus</i>)	1096 aa			scaffold_8000: 30,363-33,653	Meg
Rat (<i>Rattus norvegicus</i>)	1111 aa			Chr X	Rat
Cow (<i>Bos taurus</i>)	789 aa		XM_584347 (1119 aa)	Chr X	Cow
Dog (<i>Canis familiaris</i>)	1130 aa	1130 aa*	XM_843253	Chr X	Dog
Guinea Pig (<i>Cavia porcellus</i>)	1100 aa			scaffold_122: 1,398,803- 1,402,186	Gui
Horse (<i>Equus caballus</i>)	1126 aa			Chr X	Ho
Hedgehog (<i>Erinaceus europaeus</i>)	815 aa	1098 aa*		scaffold_247247: 11,607-17,340	Hed
Cat (<i>Felis catus</i>)		1056 aa*		GeneScaffold_4377: 42,131-45,912	Cat
Elephant (<i>Loxodonta africana</i>)	1132 aa			scaffold_4532: 121,634-125,079	Ele
Rabbit (<i>Oryctolagus cuniculus</i>)	781 aa	1078 aa*		GeneScaffold_6115: 13,878-20,888	Rab
Bushbaby (<i>Otolemur garnettii</i>)	798 aa	1080 aa*		scaffold_17174: 5,207-11,732	Bush
Shrew (<i>Sorex araneus</i>)	798 aa	1115 aa*		scaffold_230962: 31,390-42,415	Shr
Tree Shrew (<i>Tupaia belangeri</i>)		864 aa*		scaffold_148274: 49,242-56,040	Tup

Dolphin (<i>Tursiops truncatus</i>)	1114 aa			GeneScaffold_3116: 82,676-86,436	Dol
Armadillo (<i>Dasypus novemcinctus</i>)	1125 aa			scaffold_52243: 8,780-12,157	Arm
Marsupial mammals					
Opossum (<i>Monodelphis domestica</i>)	701 aa	1024 aa*	XM_001368717	Chr X	Opo
Birds					
Chicken (<i>Gallus gallus</i>)			XM_420290	Chr 4	Chick
Amphibians					
Xenopus (<i>Xenopus tropicalis</i>)		1239 aa*	EST (BJ639508)	Scaffold 10	XeT
Teleost fishes					
Zebrafish (<i>Danio rerio</i>)	939 aa		BC155291	Chr 5	ZF
Medaka (<i>Oryzias Latipes</i>)		977 aa*		Chr 14	Med
Stickleback (<i>Gasterosteus aculeatus</i>)		993 aa*		groupVII: 17,183,033-17,184,016	Stick
Fugu (<i>Takifugu rubripes</i>)		1006 aa*		scaffold_6: 1,219,128-1,220,087	Fug

AMER2					
Species	Ensembl Prot seq	In silico prediction	NCBI	Chromosomal / Scaffold location	abbreviations
Placental mammals					
Human (<i>Homo sapiens</i>)	552 aa			Chr 13	Hu
Mouse (<i>Mus musculus</i>)	635 aa			Chr 14	Mus
Chimpanzee (<i>Pan troglodytes</i>)	552 aa		XM_509590	Chr 13	Chimp
Macaque (<i>Macaca mulatta</i>)	550 aa			Chr 17	Mac
Orangutan (<i>Pongo pygmaeus</i>)	546 aa			Chr 13	Pong
Rat (<i>Rattus norvegicus</i>)	635 aa	646 aa	XM_001063071	Chr 15	Rat
Microbat (<i>Myotis lucifugus</i>)		560 aa		scaffold_166430: 75,130-77,188	Myo
Pika (<i>Ochotona princes</i>)	545 aa	569 aa		scaffold_4354: 100,979-103,165	Pika
Rabbit (<i>Oryctolagus cuniculus</i>)	545 aa			scaffold_210979: 56,269-58,326	Rab
Squirrel (<i>Spermophilus tridecemlineatus</i>)		501 aa		GeneScaffold_5979: 255,465-277,405	Squi

Kangaroo rat (<i>Dipodomys ordii</i>)	548 aa			scaffold_20825: 9,269-11,401	Krat
Boar (<i>Sus scrofa</i>)			XM_001924197 (518 aa)	Chr 11	Boar
Armadillo (<i>Dasypus novemcinctus</i>)	524 aa			GeneScaffold_5237: 35,019-48,733	Arm
Marsupial mammals					
Opossum (<i>Monodelphis domestica</i>)	553 aa	640 aa	XM_001375738	Chr 4	Opo
Birds					
Chicken (<i>Gallus gallus</i>)	624 aa			Chr 1	Chick
Amphibians					
Xenopus (<i>Xenopus tropicalis</i>)	635 aa		BC135184	scaffold_636: 563,743-565,650	XeT
Xenopus (<i>Xenopus laevis</i>)			BC072359 (639 aa)		XeL
Squamates					
Anole Lizard (<i>Anolis carolinensis</i>)	637 aa			scaffold_38: 5,267,831- 5,268,811	Liz
Teleost fishes					
Zebrafish (<i>Danio rerio</i>)	654 aa		NM_001100152	Chr 24	ZF
Medaka (<i>Oryzias latipes</i>)		685 aa		Chr 20	Med
Stickleback (<i>Gasterosteus aculeatus</i>)	609 aa			groupXXI: 4,702,544- 4,704,622	Stick
Fugu (<i>Takifugu rubripes</i>)		683 aa		scaffold_162: 19,596-21,846	Fug
Tetraodon (<i>Tetraodon nigroviridis</i>)		692 aa		Chr 6	Tetra

AMER3					
Species	Ensembl Prot seq	<i>In silico</i> prediction	NCBI	Chromosomal / Scaffold location	abbreviations
Placental mammals					
Human (<i>Homo sapiens</i>)	861 aa			Chr 2	Hu
Mouse (<i>Mus musculus</i>)	780 aa			Chr 1	Mus
Chimpanzee (<i>Pan troglodytes</i>)	861 aa			Chr 2b	Chimp
Gorilla (<i>Gorilla gorilla</i>)	861 aa			scaffold_15596: 32,603-35,188	Go
Macaque (<i>Macaca mulatta</i>)	861 aa			Chr 13	Mac
Orangutan (<i>Pongo pygmaeus</i>)	861 aa			Chr 2b	Pong

Megabat (<i>Pteropus vampyrus</i>)	775 aa		scaffold_23676: 1,970-4,342	Mega
Rat (<i>Rattus norvegicus</i>)	784 aa		XM_001055491 Chr 9	Rat
Cow (<i>Bos taurus</i>)		807 aa	XM_869018 Chr 2	Cow
Dog (<i>Canis familiaris</i>)	855 aa		Chr 19	Dog
Guinea Pig (<i>Cavia porcellus</i>)	788 aa		scaffold_3: 71,090,185-71,092,548	Gui
Horse (<i>Equus caballus</i>)	763 aa	1043 aa	XM_001915331 Chr 18	Ho
Rabbit (<i>Oryctolagus cuniculus</i>)	841 aa		scaffold_175702: 11,147-13,706	Rab
Dolphin (<i>Tursiops truncatus</i>)	846 aa		scaffold_108978: 8,870-11,470	Dol
Armadillo (<i>Dasypus novemcinctus</i>)	472 aa		scaffold_32713: 39,924-41,372	Arm
Marsupial mammals				
Opossum (<i>Monodelphis domestica</i>)	871 aa		XM_001376608 Chr 4	Opo
Monotremal mammals				
Platypus (<i>Ornithorhynchus anatinus</i>)		840 aa	Contig7170: 25,324-27,151	Pla
Birds				
Chicken (<i>Gallus gallus</i>)			XM_001232633 Chr 9	Chick
Amphibians				
Xenopus (<i>Xenopus tropicalis</i>)		920 aa	Scaffold 55	XeT
Teleost fishes				
Zebrafish (<i>Danio rerio</i>)			XM_001341803 (905 aa) Chr 2	ZF

* When ORFs predicted by automated database annotation were shorter than anticipated, we use GenomeScan software to build the correct gene model using the human *Amer* genes as guide.