**Figure 1 - source data 1. List of RIF1 protein homologs across representative species from the Animalia and Fungi kingdoms.**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Kingdom** | **Phylum (Animalia) /****Division (Fungi)** | **Class** | **Infraclass** | **Clade/****Superorder** | **Order** | **Genus & Species** | **Common name** | **RIF1** **UniProt ID** | **N°****AA\*** |
| Animalia | Chordata(Vertebrates) | Mammalia | Placentalia | Euarchontoglires | Primates | *Homo sapiens* | Human | Q5UIP0-1 | 2472 |
| *Pan troglodytes* | Chimpanzee | A0A6D2Y1B4 | 2473 |
| Callithrix jacchus | Marmoset | F7I9U7 | 2463 |
| Rodentia | *Mus musculus* | Mouse | Q6PR54-1 | 2419 |
| Lagomorpha | *Oryctolagus cuniculus* | Rabbit | G1TYW6-1 | 2455 |
| Laurasiatheria | Artiodactyla | *Bos taurus* | Cow | E1BCK1 | 2313 |
| Perissodactyla | *Equus caballus* | Horse | A0A3Q2H5U1 | 2476 |
| Afrotheria | Proboscidea | *Loxodonta africana* | Elephant | G3T4D9 | 2441 |
| Xenarthra | Not included in the analysis. |  |
| Marsupialia | / | Didelphimorphia | *Monodelphis domestica* | Opossum | K7E160 | 2408 |
| Monotremata | / | Monotremata | *Ornithorhynchus anatinus* | Platypus | F7BUB6 | 2455 |
| Aves (Birds) | / | / | Galliformes | *Gallus gallus* | Chicken | E1C2U2-1 | 2326 |
| Reptilia | / | / | Squamata | *Podarcis muralis* | Lizard | A0A670HUX7 | 1961 |
| Amphibia | / | / | Anura | *Xenopus laevis* | Xenopus orAfrican clawed frog | I6N3H5 | 2327 |
| Actinopterygii (bony fishes) | / | / | Cypriniformes | *Danio rerio* | Zebrafish | B0UY57 | 2392 |
| Chondrichthyes (cartilaginous fishes) | / | / | Chimaeriformes | *Callorhinchus milii* | Shark | A0A4W3IQ02 | 2254 |
| Arthropoda (Invertebrates) | Insecta | / | / | Diptera | *Drosophila melanogaster* | Drosophila orFruit fly | Q9XZ34 | 1416 |
| Fungi | Ascomycota (Lower eukaryotes) | Saccharomycetes | / | / | Saccharomycetales | *Saccharomyces cerevisiae* | (Baker's) yeast | P29539 | 1916 |
| Schizosaccharomycetes | / | / | Schizosaccharomycetales | Schizosaccharomyces pombe | Fission yeast | Q96UP3 | 1400 |

\*AA = amino acids