**Table S5. Putative orthologue families unique to Pseudofungi in comparison to other eukaryotes.** See Table S4 for list of genomes compared and then further compared to GenBank databases using BLAST.

|  |  |  |  |
| --- | --- | --- | --- |
| **Gene Name** | ***Hyphochytrium* gene (Accession number)** | **Oomycete exemplar**  **(Accession number)** | **Possible provenance of novel gene [and/or characteristic]** |
| RCC1 repeat domain containing protein | Hypho2016\_00014105/6 | XP\_012200151 | Novel domain combination |
| EF-hand domain containing protein | Hypho2016\_00009822 | XP\_008620138.1 | Novel domain combination |
| Catalytic domain of AGC family Serine/Threonine Kinases (STkc\_AGC) containing proteinHypho2016\_00001388-RA | Hypho2016\_00001388 | XP\_009830367.1\* | Novel domain combination |
| VWD domain containing protein | Hypho2016\_00005547 | *Pythium* genome sequence PYU1\_G013767-201 from Ensembl. | Novel domain combination |
| Ankyrin repeat and bacterial Toll-like receptor domain protein | Hypho2016\_00009105 | ETK72757 | Novel domain combination |
| FKBP-type peptidyl-prolyl cis-trans isomerase domain containing protein | Hypho2016\_00003951 | XP\_009828623.1 | Novel domain combination |
| Cysteine-rich domain containing protein | Hypho2016\_00003868 | AIG56228 | Novel protein (no similarity to non-oomycete taxa) |
| Conserved hypothetical protein | Hypho2016\_00005528 | CCI42978 | Novel protein (no similarity to non-oomycete taxa) |
| Large eukaryotic DNA virus major capsid protein | Hypho2016\_00000981 | ETI39689 | Viral integration |

\*Also detected in domain analyses – see Table S3