**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 | hypho\_2015\_6617 (XXXXXX) | XP\_012200151 | Novel domain combination |
| EF-hand domain containing protein | hypho\_2015\_6370 (XXXXXX) | XP\_008620138.1 | Novel domain combination |
| Catalytic domain of AGC family Serine/Threonine Kinases (STkc\_AGC) containing protein | hypho\_2015\_11884 (XXXXXX) | XP\_009830367.1\* | Novel domain combination |
| VWD domain containing protein | hypho\_2015\_5401 (XXXXXX) | *Pythium* genome sequence (not available in GenBank) | Novel domain combination |
| Ankyrin repeat and bacterial Toll-like receptor domain protein | hypho\_2015\_8026 (XXXXXX) | ETK72757 | Novel domain combination |
| FKBP-type peptidyl-prolyl cis-trans isomerase domain containing protein | Hypho\_2014\_12492 (XXXXXX) | XP\_009828623.1 | Novel domain combination |
| Cysteine-rich domain containing protein | hypho\_2015\_10796 (XXXXXX) | AIG56228 | Novel protein (no similarity to non-oomycete taxa) |
| Conserved hypothetical protein | hypho\_2015\_130\_1 (XXXXXX) | CCI42978 | Novel protein (no similarity to non-oomycete taxa) |
| Large eukaryotic DNA virus major capsid protein | Hypho\_2014\_10459 (XXXXXX) | ETI39689 | Viral integration |

\*Also detected in domain analyses – see Table S3