**Table S2. Gene-function associations based on the coexpression network CoExp$^2_{Tbr}$.** Pathways are defined according to KEGG. Refer to Table S1 for more details.

| | Ribosome | Inositol phosphate metabolism | Phosphatidylinositol signaling | Glycolysis | TriTrypDB annotation (v2.0) | Notes |
|---|---|---|---|---|---|---|
| Tb927.6.2330 | ***** | | | | RGG protein | *a* |
| Tb927.8.1110 | * | | | | 40S ribosomal protein S9 | |
| Tb927.8.1340 | ***** | | | | 60S ribosomal protein L7a | |
| Tb927.7.2370 | **** | | | | 40S ribosomal protein S15 | |
| Tb11.01.5720 | **** | | | | Ribosomal protein L18 | |
| Tb927.6.5130 | * | | | | 60S acidic ribosomal protein P2 | |
| Tb11.02.4360 | ***** | | | | 40S ribosomal protein S21 | |
| Tb11.02.2430 | *** | | | | 60S ribosomal protein L17 | |
| Tb927.4.3660 | *** | | | | Hypothetical protein, conserved | |
| Tb11.01.1465 | *** | | | | Nascent polypeptide associated complex alpha subunit | |
| Tb927.5.1110 | * | | | | 60S ribosomal protein L2, 60S ribosomal protein L8 | |
| Tb927.3.4360 | ** | | | | 40S ribosomal protein S15A | |
| Tb927.4.5030 | * | | | | Protein phosphatase 1 | |
| Tb09.211.0340 | **** | | | | 60S ribosomal protein L10 | |
| Tb11.01.7730 | * | | | | Hypothetical protein, conserved | *b* |
| Tb09.211.3300 | * | | | | Peroxin 19 (inferred from mutant phenotype) | *c* |
| Tb927.7.3530 | | * | * | | Hypothetical protein, conserved | |
| Tb927.10.16170 (Tb10.61.0090) | | * | * | | Potassium voltage-gated channel | *d* |
| Tb11.01.3370 | | | * | | Glycosomal membrane protein | *e* |
| Tb927.7.4500 | | | | ** | Hypothetical protein, conserved | |
| Tb927.4.4870 | | | | *** | Amino acid transporter | |

* $1\times10^{-4} < \text{p-value} \leq 0.01$
** $1\times10^{-7} < \text{p-value} \leq 1\times10^{-4}$
*** $1\times10^{-14} < \text{p-value} \leq 1\times10^{-7}$
**** $1\times10^{-28} < \text{p-value} \leq 1\times10^{-14}$
***** $\text{p-value} \leq 1\times10^{-28}$

*a* RGG domain has been shown previously to interact with ribosomal proteins (J Biol Chem 1998, 273:19025-19029).

*b* Tb11.01.7730 has been reported to be associated with transcription factor II H (Mol Microbiol 2007, 64:1164-1181; Nucleic Acids Res 2009, 37:3811-3820).

*c* Tb09.211.3300 has several Pfam domains, such as Pex19 which is essential for peroxisome biogenesis, and LUC7 which is U1 snRNA-associated protein.

*d* The relationship between Inositol phosphate-mediated signaling and potassium channel activity has been reported in different studies (Proc Natl Acad Sci U S A 2000, 97:8687-8692; Circ Res 2001, 89:1168-1176; Nat Neurosci 2006, 9:1397-1403).

*e* The 3′ UTR of Tb11.01.3370 contains the motifs [AT]CTTTT[GT]C[ACGT] and [ACG]AGAA[AC]A[AT][AGT]. Both of these motifs have been previously predicted as potential regulatory elements specific to inositol phosphate metabolism and phosphatidylinositol signaling genes (BMC Genomics 2009, 10:355).