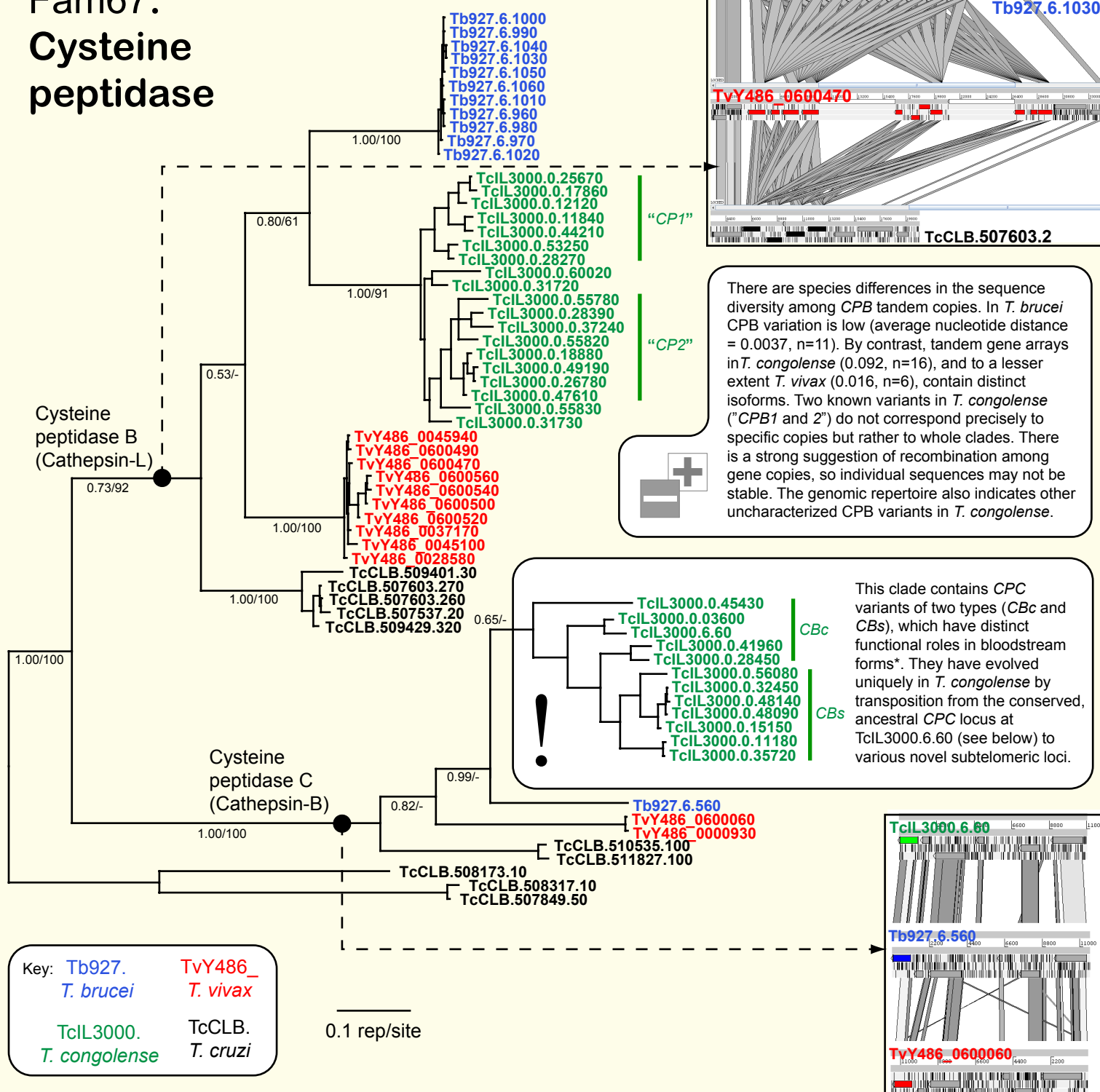


If you use these data, please cite:

Jackson, AP et al. 2012. A cell surface phylome for African Trypanosomes. *Manuscript submitted.*

Fam67: Cysteine peptidase



NOTES: Fam67 comprises the major cysteine proteases of trypanosomes, known as Cathepsin. *T. brucei* and *T. cruzi* two types, Cathepsin-L and Cathepsin-B. Cathepsin-L is arranged in a tandem gene array in *T. brucei* and *T. cruzi*, and *T. congolense* and *T. vivax* appear to share this feature (inset top right, showing an ACT comparison in which vertical grey bars represent significant BLASTp matches and Fam67 members are coloured). Cathepsin-B is a single-copy locus conserved throughout the genus (inset bottom right) and expanded uniquely in *T. congolense* (*Mendoza-Palomares et al. (2008) *Eukaryotic Cell* 7: 384-697). Precise copy number within tandem gene arrays is not known.

The Bayesian phylogram was estimated from a multiple protein sequence alignment of 481 characters, using MrBayes under default settings. The tree is rooted with an outgroup of divergent *T. cruzi* homologs. Selected nodes are supported by posterior probabilities and non-parametric bootstraps generated from a maximum likelihood analysis using an LG model with rate heterogeneity.