Test of substitution saturation (Xia et al. 2003; Xia and Lemey 2009)

Testing whether the observed Iss is significantly lower than Iss.c.

Part I. For a symmetrical tree.

Prop. invar. sites	0.0000	
Mean H	0.5728	
Standard Error	0.0271	
Hmax	1.5380	
lss	0.3724	
lss.c	0.8026	
Т	15.8618	
DF	1220	
Prob (Two-tailed)	0.0000	
95% Lower Limit	0.3193	

0.4256

Part II. For an extreme asymmetrical (and generally very

unlikely) tree.

95% Upper Limit

Iss.c 0.7330 T 13.2962 DF 1220

Prob (Two-tailed) 0.0000

95% Lower Limit 0.3193 95% Upper Limit 0.4256

Interpretation of results:

Significant Difference

Yes No

lss < lss.c Little Substantial saturation saturation

lss > lss.c Useless Very poor sequences for phylogenetics

sequences for phylogenetic

Please cite:

Xia, X., Z. Xie, M. Salemi, L. Chen, Y. Wang. 2003. An index of substitution saturation and its application. Molecular Phylogenetics and Evolution 26:1-7.

Xia, X. and Lemey, P. 2009. Assessing substitution saturation with DAMBE. Pp. 615-630 in Philippe Lemey, Marco Salemi and Anne-Mieke Vandamme, eds. The Phylogenetic Handbook: A Practical Approach to DNA and Protein Phylogeny. 2nd edition Cambridge University Press.