

Testing whether the observed I_{ss} is significantly lower than I_{ss.c}.

Part I. For a symmetrical tree.

Prop. invar. sites	0.0000
Mean H	0.0511
Standard Error	0.0046
Hmax	1.3211
I _{ss}	0.0387
I _{ss.c}	0.8410
T	175.3407
DF	2057
Prob (Two-tailed)	0.0000
95% Lower Limit	0.0297
95% Upper Limit	0.0476

Part II. For an extreme asymmetrical (and generally very unlikely) tree.

I _{ss.c}	0.8158
T	169.8239
DF	2057
Prob (Two-tailed)	0.0000
95% Lower Limit	0.0297
95% Upper Limit	0.0476

Interpretation of results:

Significant Difference

Yes

No

I _{ss} < I _{ss.c}	Little saturation	Substantial saturation
I _{ss} > I _{ss.c}	Useless sequences	Very poor for phylogenetics

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.