Appendix 6. Results of symmetric-difference distance (SDD) calculations preformed for maximum-likelihood (ML) trees constructed with alternative best-fit models as well as the Kimura 2-parameter (K2P) model. Comparisons were also made between each ML tree and maximum-parsimony (MP) tree(s). In cases where ML or MP produced more than one tree, the average SDD value was reported. Data were not available for data sets 24, 80, and 120. SDD values were standardized by dividing by the number of taxa; standardized values are reported in bold type.

Data Set	**1**	**2**	**3**
TreeBASE ID	S1266/M2209	S685/M1075	S388/M542
Model 1	GTR+Γ	GTR+I+Γ	GTR+Γ
Model 2	TVM	TrN+Γ	TVM+Γ
Model 3	HKY+Γ	-	-
1 vs. 2	2 / **0.40**	0 / **0**	0 / **0**
1 vs. 3	0 / **0**	-	-
2 vs. 3	2 / **0.40**	-	-
1 vs. K2P	0 / **0**	4 / **0.44**	6 / **0.10**
2 vs. K2P	2 / **0.40**	4 / **0.44**	6 / **0.10**
3 vs. K2P	0 / **0**	-	-
1 vs. MP	$\bar{x}$ 2.50 / **0.50**	$\bar{x}$ 2.50 / **0.28**	$\bar{x}$ 11.41 / **0.19**
2 vs. MP	$\bar{x}$ 1.50 / **0.30**	$\bar{x}$ 2.50 / **0.28**	$\bar{x}$ 11.41 / **0.19**
3 vs. MP	$\bar{x}$ 2.50 / **0.50**	-	-

Data Set	**4**	**5**	**6**
TreeBASE ID	S904/M1486	S631/M977	S1067/M1819
Model 1	GTR+I+Γ	TrNef+Γ	GTR
Model 2	TrN+I+Γ	-	HKY
Model 3	F81+I+Γ	-	-

1 vs. 2	30 / **0.58**	-	0 / **0**
1 vs. 3	30 / **0.58**	-	-
2 vs. 3	0 / **0**	-	-
1 vs. K2P	36 / **0.69**	$\bar{x}$ 10.50 / **0.29**	0 / **0**
2 vs. K2P	34 / **0.65**	-	0 / **0**
3 vs. K2P	34 / **0.65**	-	-
1 vs. MP	$\bar{x}$ 25.07 / **0.48**	$\bar{x}$ 17.64 / **0.49**	0 / **0**
2 vs. MP	$\bar{x}$ 50.77 / **0.98**	-	0 / **0**
3 vs. MP	$\bar{x}$ 50.77 / **0.98**	-	-

Data Set	**7**	**8**	**9**
TreeBASE ID	S769/M1216	S1038/M1767	S320/M391
Model 1	TVM+I+Γ	TVMef+Γ	GTR+I+Γ
Model 2	TrN+Γ	K2P+Γ	-
Model 3	HKY+Γ	-	-
1 vs. 2	3 / **0.05**	0 / **0**	-
1 vs. 3	3 / **0.05**	-	-
2 vs. 3	0 / **0**	-	-
1 vs. K2P	38 / **0.64**	2 / **0.15**	0 / **0**
2 vs. K2P	35 / **0.59**	2 / **0.15**	-
3 vs. K2P	35 / **0.59**	-	-
1 vs. MP	$\bar{x}$ 34.71 / **0.59**	$\bar{x}$ 3.75 / **0.29**	0 / **0**
2 vs. MP	$\bar{x}$ 33.68 / **0.57**	$\bar{x}$ 3.75 / **0.29**	-
3 vs. MP	$\bar{x}$ 33.68 / **0.57**	-	-

Data Set	**10**	**11**	**12**
TreeBASE ID	S430/M630	S981/M1631	S869/M1410

Model 1	TrN+Γ	GTR+Γ	K3Puf+I+Γ
Model 2	HKY+Γ	TVMef+Γ	K3P+Γ
Model 3	K2P+Γ	K3Puf+Γ	-
1 vs. 2	0 / **0**	$\bar{x}$ 15.50 / **0.17**	$\bar{x}$ 1 / **0.06**
1 vs. 3	0 / **0**	$\bar{x}$ 0.50 / **0.01**	-
2 vs. 3	0 / **0**	16 / **0.17**	-
1 vs. K2P	0 / **0**	$\bar{x}$ 8.50 / **0.09**	4 / **0.25**
2 vs. K2P	0 / **0**	15 / **0.16**	$\bar{x}$ 3 / **0.19**
3 vs. K2P	0 / **0**	9 / **0.10**	-
1 vs. MP	8 / **0.89**	$\bar{x}$ 32.49 / **0.35**	$\bar{x}$ 11 / **0.69**
2 vs. MP	8 / **0.89**	$\bar{x}$ 27.63 / **0.30**	$\bar{x}$ 10 / **0.63**
3 vs. MP	8 / **0.89**	$\bar{x}$ 33.37 / **0.36**	-

Data Set	**13**	**14**	**15**
TreeBASE ID	S927/M1533	S1120/M1917	S1123/M1924
Model 1	TIM+I+Γ	GTR+Γ	TVM+I+Γ
Model 2	TrN+I+Γ	TVM+Γ	-
1 vs. 2	0 / **0**	0 / **0**	-
1 vs. K2P	8 / **0.29**	0 / **0**	4 / **0.13**
2 vs. K2P	8 / **0.29**	0 / **0**	-
1 vs. MP	$\bar{x}$ 13.24 / **0.47**	$\bar{x}$ 3 / **0.13**	6 / **0.13**
2 vs. MP	$\bar{x}$ 13.24 / **0.47**	$\bar{x}$ 3 / **0.13**	-

Data Set	**16**	**17**	**18**
TreeBASE ID	S662/M1038	S736/M1168	S756/M1194
Model 1	TrNef+I+Γ	TIM+I+Γ	TrN+Γ
Model 2	TrNef+Γ	TrN+Γ	-

Model 3	K2P+Γ	-	-
1 vs. 2	$\bar{x}$ 34 / **0.28**	0 / **0**	-
1 vs. 3	$\bar{x}$ 44.80 / **0.37**	-	-
2 vs. 3	32 / **0.26**	-	-
1 vs. K2P	$\bar{x}$ 45.56 / **0.37**	9 / **0.41**	$\bar{x}$ 5.50 / **0.16**
2 vs. K2P	$\bar{x}$ 50.60 / **0.41**	9 / **0.41**	-
3 vs. K2P	$\bar{x}$ 54.60 / **0.45**	-	-
1 vs. MP	$\bar{x}$ 63.65 / **0.52**	$\bar{x}$ 16.73 / **0.76**	$\bar{x}$ 9.76 / **0.28**
2 vs. MP	$\bar{x}$ 62.85 / **0.52**	$\bar{x}$ 16.73 / **0.76**	-
3 vs. MP	$\bar{x}$ 59.28 / **0.49**	-	-

Data Set	**19**	**20**	**21**
TreeBASE ID	S644/M1001	S1213/M2099	S1078/M1849
Model 1	GTR+I+Γ	GTR+I+Γ	TrN+I+Γ
Model 2	TIM+I+Γ	TIM+I+Γ	TrNef+I+Γ
1 vs. 2	52 / **0.56**	0 / **0**	0 / **0**
1 vs. K2P	70 / **0.75**	19 / **0.50**	6 / **0.17**
2 vs. K2P	62 / **0.67**	19 / **0.50**	6 / **0.17**
1 vs. MP	$\bar{x}$ 80.49 / **0.87**	$\bar{x}$ 21.67 / **0.57**	$\bar{x}$ 8 / **0.23**
2 vs. MP	$\bar{x}$ 77.61 / **0.83**	$\bar{x}$ 21.67 / **0.57**	$\bar{x}$ 8 / **0.23**

Data Set	**22**	**23**	**24**
TreeBASE ID	S3x27x98c12c26c10/ M186c3x27x33c47	S1234/M2146	S1112/M1902
Model 1	GTR+I+Γ	GTR+I+Γ	GTR+I+Γ
Model 2	TrN+I+Γ	SYM+I+Γ	TrN+I+Γ
Model 3	-	TrNef+I+Γ	-
1 vs. 2	2 / **0.04**	0 / **0**	N/A

1 vs. 3	-	0 / **0**	-
2 vs. 3	-	0 / **0**	-
1 vs. K2P	16 / **0.29**	0 / **0**	N/A
2 vs. K2P	16 / **0.29**	0 / **0**	N/A
3 vs. K2P	-	0 / **0**	-
1 vs. MP	$\bar{x}$ 26.50 / **0.48**	0 / **0**	N/A
2 vs. MP	$\bar{x}$ 26.36 / **0.48**	0 / **0**	N/A
3 vs. MP	-	0 / **0**	-

Data Set	**25**	**26**	**27**
TreeBASE ID	S1316/M2309	S426/M620	S808/M1278
Model 1	TrN+I+Γ	-	TVM+I+Γ
Model 2	HKY+I+Γ	-	-
1 vs. 2	0 / **0**	-	-
1 vs. K2P	0 / **0**	-	63 / **0.74**
2 vs. K2P	0 / **0**	-	-
1 vs. MP	$\bar{x}$ 13.29 / **0.42**	-	$\bar{x}$ 56.26 / **0.66**
2 vs. MP	$\bar{x}$ 13.29 / **0.42**	-	-

Data Set	**28**	**29**	**30**
TreeBASE ID	S1088/M1862	S498/M725	S1096/M1874
Model 1	TVM+Γ	TIM+I+Γ	GTR+I+Γ
Model 2	HKY	TrN+I+Γ	TrN+I+Γ
Model 3	-	-	HKY+I+Γ
1 vs. 2	0 / **0**	$\bar{x}$ 1 / **0.03**	0 / **0**
1 vs. 3	-	-	$\bar{x}$ 2.50 / **0.07**
2 vs. 3	-	-	$\bar{x}$ 2.50 / **0.07**

1 vs. K2P	0 / **0**	$\bar{x}$ 24 / **0.63**	17 / **0.50**
2 vs. K2P	0 / **0**	24 / **0.63**	17 / **0.50**
3 vs. K2P	-	-	$\bar{x}$ 17.50 / **0.51**
1 vs. MP	$\bar{x}$ 1.50 / **0.09**	$\bar{x}$ 34.75 / **0.91**	$\bar{x}$ 20.50 / **0.60**
2 vs. MP	$\bar{x}$ 1.50 / **0.09**	$\bar{x}$ 34.50 / **0.91**	$\bar{x}$ 20.50 / **0.60**
3 vs. MP	-	-	$\bar{x}$ 21 / **0.62**

Data Set	**31**	**32**	**33**
TreeBASE ID	S1315/M2308	S725/M1156	S259/M299
Model 1	TIM+I+Γ	HKY+I+Γ	GTR+I+Γ
Model 2	TrN+I+Γ	K2P+I+Γ	TrNef+I+Γ
1 vs. 2	0 / **0**	0 / **0**	0 / **0**
1 vs. K2P	4 / **0.15**	0 / **0**	2 / **0.05**
2 vs. K2P	4 / **0.15**	0 / **0**	2 / **0.05**
1 vs. MP	14 / **0.54**	$\bar{x}$ 3.17 / **0.11**	$\bar{x}$ 14.50 / **0.36**
2 vs. MP	14 / **0.54**	$\bar{x}$ 3.17 / **0.11**	$\bar{x}$ 14.50 / **0.36**

Data Set	**34**	**35**	**36**
TreeBASE ID	S1069/M1823	S1095/M1873	S771/M1220
Model 1	TrN+I	GTR+I+Γ	TVM+Γ
Model 2	TrNef+Γ	-	K3Puf+Γ
1 vs. 2	0 / **0**	-	0 / **0**
1 vs. K2P	0 / **0**	12 / **0.32**	0 / **0**
2 vs. K2P	0 / **0**	-	0 / **0**
1 vs. MP	$\bar{x}$ 3.67 / **0.11**	$\bar{x}$ 10 / **0.26**	$\bar{x}$ 1.50 / **0.11**
2 vs. MP	$\bar{x}$ 3.67 / **0.11**	-	$\bar{x}$ 1.50 / **0.11**

Data Set	**37**	**38**	**39**
TreeBASE ID	S428/M626	S553/M824	S1178/M2038
Model 1	HKY+Γ	TrN+Γ	-
Model 2	HKY+I	K2P+Γ	-
1 vs. 2	0 / **0**	0 / **0**	-
1 vs. K2P	0 / **0**	0 / **0**	-
2 vs. K2P	0 / **0**	0 / **0**	-
1 vs. MP	0 / **0**	$\bar{x}$ 12.31 / **0.30**	-
2 vs. MP	0 / **0**	$\bar{x}$ 12.31 / **0.30**	-

Data Set	**40**	**41**	**42**
TreeBASE ID	S911/M1509	S570/M863	S724/M1155
Model 1	SYM+I+Γ	TVM+I+Γ	GTR
Model 2	TrNef+I+Γ	TrN+I+Γ	HKY
Model 3	TrNef+Γ	HKY+I+Γ	K2P
1 vs. 2	$\bar{x}$ 0.50 / **0.01**	$\bar{x}$ 49.67 / **0.49**	0 / **0**
1 vs. 3	$\bar{x}$ 0.50 / **0.01**	$\bar{x}$ 36.33 / **0.36**	0 / **0**
2 vs. 3	$\bar{x}$ 0.50 / **0.01**	46 / **0.46**	0 / **0**
1 vs. K2P	$\bar{x}$ 21.50 / **0.45**	$\bar{x}$ 102.33 / **1.01**	0 / **0**
2 vs. K2P	$\bar{x}$ 21.50 / **0.45**	108 / **1.07**	0 / **0**
3 vs. K2P	$\bar{x}$ 21.50 / **0.45**	104 / **1.03**	0 / **0**
1 vs. MP	$\bar{x}$ 20.80 / **0.43**	$\bar{x}$ 126.56 / **1.25**	0 / **0**
2 vs. MP	$\bar{x}$ 20.85 / **0.43**	$\bar{x}$ 138.57 / **1.37**	0 / **0**
3 vs. MP	$\bar{x}$ 20.85 / **0.43**	$\bar{x}$ 132.56 / **1.31**	0 / **0**

Data Set	**43**	**44**	**45**

TreeBASE ID	S890/M1452	S390/M545	S693/M1102
Model 1	TIM+I+Γ	TVM+I+Γ	SYM+Γ
Model 2	K3Puf+I+Γ	TIM+I+Γ	TrN+Γ
Model 3	K3Puf+I	K3Puf+I+Γ	TrNef+Γ
1 vs. 2	0 / **0**	0 / **0**	0 / **0**
1 vs. 3	0 / **0**	0 / **0**	0 / **0**
2 vs. 3	0 / **0**	0 / **0**	0 / **0**
1 vs. K2P	0 / **0**	6 / **0.40**	2 / **0.17**
2 vs. K2P	0 / **0**	6 / **0.40**	2 / **0.17**
3 vs. K2P	0 / **0**	6 / **0.40**	2 / **0.17**
1 vs. MP	$\bar{x}$ 2.96 / **0.11**	10 / **0.67**	$\bar{x}$ 6.50 / **0.54**
2 vs. MP	$\bar{x}$ 2.96 / **0.11**	10 / **0.67**	$\bar{x}$ 6.50 / **0.54**
3 vs. MP	$\bar{x}$ 2.96 / **0.11**	10 / **0.67**	$\bar{x}$ 6.50 / **0.54**

Data Set	**46**	**47**	**48**
TreeBASE ID	S1243/M2167	S425/M619	S1304/M2284
Model 1	GTR+Γ	GTR+I+Γ	TVM+I
Model 2	TrN+Γ	-	HKY+Γ
Model 3	TrNef+Γ	-	HKY+I
1 vs. 2	1 / **0.03**	-	8 / **0.30**
1 vs. 3	8 / **0.22**	-	$\bar{x}$ 7 / **0.26**
2 vs. 3	9 / **0.24**	-	$\bar{x}$ 1 / **0.04**
1 vs. K2P	17 / **0.46**	0 / **0**	8 / **0.30**
2 vs. K2P	18 / **0.49**	-	0 / **0**
3 vs. K2P	9 / **0.24**	-	$\bar{x}$ 1 / **0.04**
1 vs. MP	$\bar{x}$ 20.32 / **0.55**	$\bar{x}$ 3.50 / **0.10**	0 / **0**
2 vs. MP	$\bar{x}$ 20.69 / **0.56**	-	8 / **0.30**
3 vs. MP	$\bar{x}$ 15.05 / **0.41**	-	$\bar{x}$ 5 / **0.19**

Data Set	**49**	**50**	**51**
TreeBASE ID	S3x10x98c09c42c47/ M184c3x2x98c11c12c31	S333/M425	S1262/M2204
Model 1	TVM+Γ	TVM+I+Γ	GTR+I
Model 2	HKY+Γ	K3Puf+I+Γ	HKY+Γ
Model 3	-	HKY+I+Γ	HKY+I
1 vs. 2	6 / **0.20**	0 / **0**	0 / **0**
1 vs. 3	-	0 / **0**	$\bar{x}$ 1 / **0.04**
2 vs. 3	-	0 / **0**	$\bar{x}$ 1 / **0.04**
1 vs. K2P	12 / **0.40**	0 / **0**	$\bar{x}$ 2 / **0.08**
2 vs. K2P	10 / **0.33**	0 / **0**	$\bar{x}$ 2 / **0.08**
3 vs. K2P	-	0 / **0**	$\bar{x}$ 2.33 / **0.10**
1 vs. MP	$\bar{x}$ 16 / **0.53**	$\bar{x}$ 8.50 / **0.33**	$\bar{x}$ 4.30 / **0.18**
2 vs. MP	$\bar{x}$ 14 / **0.47**	$\bar{x}$ 8.50 / **0.33**	$\bar{x}$ 4.30 / **0.18**
3 vs. MP	-	$\bar{x}$ 8.50 / **0.33**	$\bar{x}$ 4.26 / **0.18**

Data Set	**52**	**53**	**54**
TreeBASE ID	S2x14x97c16c11c45/ M165c2x14xM165c2x14x	S659/M1034	S711/M1134
Model 1	GTR+I+Γ	TrN+I+Γ	GTR+I+Γ
Model 2	GTR+Γ	TrNef+I+Γ	TVM+I+Γ
Model 3	TrNef+Γ	-	-
1 vs. 2	0 / **0**	0 / **0**	2 / **0.04**
1 vs. 3	5 / **0.15**	-	-
2 vs. 3	5 / **0.15**	-	-
1 vs. K2P	5 / **0.15**	14 / **0.23**	14 / **0.25**
2 vs. K2P	5 / **0.15**	14 / **0.23**	16 / **0.28**
3 vs. K2P	0 / **0**	-	-

1 vs. MP	$\bar{x}$ 16.89 / **0.50**	$\bar{x}$ 33.16 / **0.53**	20 / **0.35**
2 vs. MP	$\bar{x}$ 16.89 / **0.50**	$\bar{x}$ 33.16 / **0.53**	22 / **0.39**
3 vs. MP	$\bar{x}$ 16.10 / **0.47**	-	-

Data Set	**55**	**56**	**57**
TreeBASE ID	S1302/M2280	S679/M1064	S712/M1135
Model 1	GTR+I+Γ	GTR+I+Γ	TrN+I+Γ
Model 2	TrN+I+Γ	-	TrNef+I+Γ
1 vs. 2	$\bar{x}$ 14.50 / **0.35**	-	0 / **0**
1 vs. K2P	$\bar{x}$ 30.50 / **0.74**	3 / **0.08**	13 / **0.28**
2 vs. K2P	36 / **0.88**	-	13 / **0.28**
3 vs. K2P	-	-	-
1 vs. MP	$\bar{x}$ 34 / **0.83**	$\bar{x}$ 12 / **0.30**	$\bar{x}$ 16.60 / **0.36**
2 vs. MP	$\bar{x}$ 39.50 / **0.96**	-	$\bar{x}$ 16.60 / **0.36**

Data Set	**58**	**59**	**60**
TreeBASE ID	S367/M502	S322/M401	S1046/M1782
Model 1	K3Puf+Γ	TVM+Γ	TVM+I+Γ
Model 2	F81+Γ	TrN+Γ	-
Model 3	JC+Γ	TVMef+Γ	-
1 vs. 2	0 / **0**	2 / **0.11**	-
1 vs. 3	0 / **0**	4 / **0.21**	-
2 vs. 3	0 / **0**	2 / **0.11**	-
1 vs. K2P	0 / **0**	8 / **0.42**	4 / **0.11**
2 vs. K2P	0 / **0**	10 / **0.53**	-
3 vs. K2P	0 / **0**	10 / **0.53**	-
1 vs. MP	$\bar{x}$ 5.43 / **0.30**	16 / **0.84**	4 / **0.11**

2 vs. MP	$\bar{x}$ 5.43 / **0.30**	18 / **0.95**	-
3 vs. MP	$\bar{x}$ 5.43 / **0.30**	20 / **1.05**	-

Data Set	**61**	**62**	**63**
TreeBASE ID	S529/M777	S1217/M2104	S400/M568
Model 1	GTR+I+Γ	-	GTR+I+Γ
Model 2	TIM+Γ	-	TrNef+I+Γ
1 vs. 2	0 / **0**	-	2 / **0.04**
1 vs. K2P	0 / **0**	-	11 / **0.23**
2 vs. K2P	0 / **0**	-	13 / **0.28**
1 vs. MP	$\bar{x}$ 1 / **0.06**	-	$\bar{x}$ 17.52 / **0.37**
2 vs. MP	$\bar{x}$ 1 / **0.06**	-	$\bar{x}$ 19.52 / **0.42**

Data Set	**64**	**65**	**66**
TreeBASE ID	S958/M1589	S964/M1596	S522/M760
Model 1	GTR+I+Γ	K3Puf+I+Γ	TrN+I+Γ
Model 2	TrN+I+Γ	K3Puf+Γ	HKY+I+Γ
Model 3	-	HKY+Γ	TrNef+I+Γ
1 vs. 2	$\bar{x}$ 4.50 / **0.09**	$\bar{x}$ 0.50 / **0.03**	0 / **0**
1 vs. 3	-	$\bar{x}$ 0.50 / **0.03**	0 / **0**
2 vs. 3	-	$\bar{x}$ 0.50 / **0.03**	0 / **0**
1 vs. K2P	$\bar{x}$ 36.50 / **0.73**	$\bar{x}$ 0.50 / **0.03**	2 / **0.10**
2 vs. K2P	$\bar{x}$ 34.50 / **0.69**	$\bar{x}$ 0.50 / **0.03**	2 / **0.10**
3 vs. K2P	-	$\bar{x}$ 0.50 / **0.03**	2 / **0.10**
1 vs. MP	$\bar{x}$ 37.67 / **0.75**	$\bar{x}$ 2.50 / **0.14**	4 / **0.20**
2 vs. MP	$\bar{x}$ 35.69 / **0.71**	$\bar{x}$ 2.50 / **0.14**	4 / **0.20**
3 vs. MP	-	$\bar{x}$ 2.50 / **0.14**	4 / **0.20**

Data Set	**67**	**68**	**69**
TreeBASE ID	S967/M1604	S608/M935	S385/M537
Model 1	K3Puf	TIM+I+Γ	TrN+I+Γ
Model 2	HKY	K3Puf+Γ	TrN+Γ
Model 3	-	-	HKY+Γ
1 vs. 2	0 / **0**	6 / **0.14**	0 / **0**
1 vs. 3	-	-	0 / **0**
2 vs. 3	-	-	0 / **0**
1 vs. K2P	0 / **0**	17 / **0.40**	8 / **0.44**
2 vs. K2P	0 / **0**	13 / **0.31**	8 / **0.44**
3 vs. K2P	-	-	8 / **0.44**
1 vs. MP	0 / **0**	$\bar{x}$ 19.77 / **0.47**	$\bar{x}$ 4.50 / **0.25**
2 vs. MP	0 / **0**	$\bar{x}$ 17.78 / **0.42**	$\bar{x}$ 4.50 / **0.25**
3 vs. MP	-	-	$\bar{x}$ 4.50 / **0.25**

Data Set	**70**	**71**	**72**
TreeBASE ID	S6x22x97c14c38c41/ M170c6x22x97c14c48c20	S1000/M1688	S1227/M2133
Model 1	GTR+I+Γ	-	-
Model 2	TIM+I+Γ	-	-
Model 3	TIM+Γ	-	-
1 vs. 2	0 / **0**	-	-
1 vs. 3	0 / **0**	-	-
2 vs. 3	0 / **0**	-	-
1 vs. K2P	2 / **0.22**	-	-
2 vs. K2P	2 / **0.22**	-	-
3 vs. K2P	2 / **0.22**	-	-

1 vs. MP	2 / **0.22**	-	-
2 vs. MP	2 / **0.22**	-	-
3 vs. MP	2 / **0.22**	-	-

Data Set	**73**	**74**	**75**
TreeBASE ID	S440/M647	S1212/M2098	S463/M676
Model 1	TrN+I+Γ	TVM+Γ	GTR+I+Γ
Model 2	K2P+I+Γ	-	TrN+I+Γ
1 vs. 2	$\bar{x}$ 2 / **0.07**	-	0 / **0**
1 vs. K2P	$\bar{x}$ 15.33 / **0.51**	1 / **0.03**	2 / **0.22**
2 vs. K2P	$\bar{x}$ 14 / **0.47**	-	2 / **0.22**
1 vs. MP	$\bar{x}$ 22.74 / **0.76**	$\bar{x}$ 3 / **0.09**	4 / **0.44**
2 vs. MP	$\bar{x}$ 21.47 / **0.72**	-	4 / **0.44**

Data Set	**76**	**77**	**78**
TreeBASE ID	S990/M1650	S1013/M1709	S560/M847
Model 1	TrN+I+Γ	TVM+I+Γ	GTR+I+Γ
Model 2	TrNef+Γ	TVM+Γ	TrN+I+Γ
Model 3	-	TIM+I+Γ	HKY+I+Γ
1 vs. 2	0 / **0**	14 / **0.11**	10 / **0.45**
1 vs. 3	-	22 / **0.18**	12 / **0.55**
2 vs. 3	-	16 / **0.13**	18 / **0.82**
1 vs. K2P	0 / **0**	77 / **0.62**	14 / **0.64**
2 vs. K2P	0 / **0**	73 / **0.58**	16 / **0.73**
3 vs. K2P	-	71 / **0.57**	14 / **0.64**
1 vs. MP	0 / **0**	$\bar{x}$ 107.21 / **0.86**	20 / **0.91**
2 vs. MP	0 / **0**	$\bar{x}$ 111.06 / **0.89**	22 / **1.00**

3 vs. MP	-	$\bar{x}$ 112.56 / **0.90**	20 / **0.91**

Data Set	**79**	**80**	**81**
TreeBASE ID	S1053/M1794	S980/M1630	S548/M808
Model 1	GTR+I+Γ	GTR+I+Γ	-
Model 2	SYM+I+Γ	TVM+I+Γ	-
Model 3	TrNef+I+Γ	-	-
1 vs. 2	4 / **0.14**	N/A	-
1 vs. 3	13 / **0.45**	-	-
2 vs. 3	15 / **0.52**	-	-
1 vs. K2P	19 / **0.66**	N/A	-
2 vs. K2P	17 / **0.59**	N/A	-
3 vs. K2P	16 / **0.55**	-	-
1 vs. MP	$\bar{x}$ 17.50 / **0.60**	N/A	-
2 vs. MP	$\bar{x}$ 15.50 / **0.53**	N/A	-
3 vs. MP	$\bar{x}$ 14.50 / **0.50**	-	-

Data Set	**82**	**83**	**84**
TreeBASE ID	S1186/M2053	S605/M929	S1099/M1881
Model 1	GTR+I+Γ	TIM+I+Γ	SYM+I+Γ
Model 2	-	TIMef+I+Γ	TrNef+I+Γ
Model 3	-	K3P+I+Γ	-
1 vs. 2	-	0 / **0**	1 / **0.02**
1 vs. 3	-	0 / **0**	-
2 vs. 3	-	0 / **0**	-
1 vs. K2P	18 / **0.28**	25 / **0.39**	1 / **0.02**
2 vs. K2P	-	25 / **0.39**	0 / **0**

3 vs. K2P	-	25 / **0.39**	-
1 vs. MP	$\bar{x}$ 36 / **0.56**	$\bar{x}$ 20.99 / **0.33**	$\bar{x}$ 36.44 / **0.56**
2 vs. MP	-	$\bar{x}$ 20.99 / **0.33**	$\bar{x}$ 35.78 / **0.55**
3 vs. MP	-	$\bar{x}$ 20.99 / **0.33**	-

Data Set	**85**	**86**	**87**
TreeBASE ID	S945/M1568	S436/M641	S489/M714
Model 1	-	TrN+I+Γ	TVM+I
Model 2	-	HKY+I+Γ	TVMef+Γ
Model 3	-	TrNef+I	TVMef+I
1 vs. 2	-	0 / **0**	0 / **0**
1 vs. 3	-	0 / **0**	0 / **0**
2 vs. 3	-	0 / **0**	0 / **0**
1 vs. K2P	-	8 / **0.50**	0 / **0**
2 vs. K2P	-	8 / **0.50**	0 / **0**
3 vs. K2P	-	8 / **0.50**	0 / **0**
1 vs. MP	-	$\bar{x}$ 9 / **0.56**	0 / **0**
2 vs. MP	-	$\bar{x}$ 9 / **0.56**	0 / **0**
3 vs. MP	-	$\bar{x}$ 9 / **0.56**	0 / **0**

Data Set	**88**	**89**	**90**
TreeBASE ID	S413/M603	S1192/M2059	S1313/M2305
Model 1	TIM+I+Γ	-	TrN+I+Γ
Model 2	TIM+Γ	-	TrNef+I+Γ
Model 3	TrN+Γ	-	-
1 vs. 2	0 / **0**	-	0 / **0**
1 vs. 3	0 / **0**	-	-

2 vs. 3	0 / **0**	-	-
1 vs. K2P	0 / **0**	-	4 / **0.17**
2 vs. K2P	0 / **0**	-	4 / **0.17**
3 vs. K2P	0 / **0**	-	-
1 vs. MP	0 / **0**	-	$\bar{x}$ 5 / **0.21**
2 vs. MP	0 / **0**	-	$\bar{x}$ 5 / **0.21**
3 vs. MP	0 / **0**	-	-

Data Set	**91**	**92**	**93**
TreeBASE ID	S472/M688	S1030/M1749	S1036/M1760
Model 1	-	TrN+I+Γ	GTR+I+Γ
Model 2	-	TrN+Γ	TVM+I+Γ
Model 3	-	-	K3Puf+I+Γ
1 vs. 2	-	0 / **0**	6 / **0.12**
1 vs. 3	-	-	4 / **0.08**
2 vs. 3	-	-	2 / **0.04**
1 vs. K2P	-	6 / **0.08**	15 / **0.31**
2 vs. K2P	-	6 / **0.08**	13 / **0.27**
3 vs. K2P	-	-	15 / **0.31**
1 vs. MP	-	$\bar{x}$ 25.20 / **0.35**	$\bar{x}$ 21.06 / **0.43**
2 vs. MP	-	$\bar{x}$ 25.20 / **0.35**	$\bar{x}$ 18.94 / **0.39**
3 vs. MP	-	-	$\bar{x}$ 18.74 / **0.38**

Data Set	**94**	**95**	**96**
TreeBASE ID	S432/M636	S578/M872	S804/M1270
Model 1	GTR+I+Γ	-	TrN+I+Γ
Model 2	-	-	TrNef+I+Γ

1 vs. 2	-	-	0 / **0**
1 vs. K2P	32 / **0.58**	-	8 / **0.28**
2 vs. K2P	-	-	8 / **0.28**
1 vs. MP	26 / **0.47**	-	$\bar{x}$ 11.50 / **0.40**
2 vs. MP	-	-	$\bar{x}$ 11.50 / **0.40**

Data Set	**97**	**98**	**99**
TreeBASE ID	S821/M1318	S568/M861	S1051/M1792
Model 1	SYM+I+Γ	GTR+Γ	GTR+I+Γ
Model 2	TrNef+Γ	TIM+I+Γ	-
Model 3	-	HKY+Γ	-
1 vs. 2	1 / **0.02**	2 / **0.10**	-
1 vs. 3	-	0 / **0**	-
2 vs. 3	-	2 / **0.10**	-
1 vs. K2P	$\bar{x}$ 5.75 / **0.12**	8 / **0.38**	4 / **0.29**
2 vs. K2P	$\bar{x}$ 4 / **0.08**	6 / **0.29**	-
3 vs. K2P	-	8 / **0.38**	-
1 vs. MP	$\bar{x}$ 19.00 / **0.38**	$\bar{x}$ 11 / **0.52**	4 / **0.29**
2 vs. MP	$\bar{x}$ 19.70 / **0.39**	$\bar{x}$ 9 / **0.43**	-
3 vs. MP	-	$\bar{x}$ 11 / **0.52**	-

Data Set	**100**	**101**	**102**
TreeBASE ID	S11x6x95c10c11c33/ M58c11x6x95c10c13c27	S1094/M1869	S777/M1232
Model 1	SYM+Γ	GTR+I+Γ	TVM+I+Γ
Model 2	TrNef+Γ	TrN+I+Γ	TVMef+I+Γ
Model 3	K2P+Γ	-	TrNef+I+Γ
1 vs. 2	0 / **0**	0 / **0**	3 / **0.07**

1 vs. 3	4 / **0.36**	-	3 / **0.07**
2 vs. 3	4 / **0.36**	-	0 / **0**
1 vs. K2P	4 / **0.36**	0 / **0**	2 / **0.05**
2 vs. K2P	4 / **0.36**	0 / **0**	5 / **0.12**
3 vs. K2P	0 / **0**	-	5 / **0.12**
1 vs. MP	4 / **0.36**	0 / **0**	$\bar{x}$ 17.48 / **0.43**
2 vs. MP	4 / **0.36**	0 / **0**	$\bar{x}$ 20.48 / **0.50**
3 vs. MP	2 / **0.18**	-	$\bar{x}$ 20.48 / **0.50**

Data Set	**103**	**104**	**105**
TreeBASE ID	S421/M615	S916/M1516	S664/M1042
Model 1	TIM+I+Γ	HKY	GTR+I+Γ
Model 2	TIMef+I+Γ	-	TrNef+I+Γ
1 vs. 2	0 / **0**	-	2 / **0.05**
1 vs. K2P	8 / **0.16**	0 / **0**	6 / **0.14**
2 vs. K2P	8 / **0.16**	-	4 / **0.09**
1 vs. MP	$\bar{x}$ 24.11 / **0.48**	$\bar{x}$ 0.67 / **0.07**	$\bar{x}$ 9 / **0.20**
2 vs. MP	$\bar{x}$ 24.11 / **0.48**	-	$\bar{x}$ 7 / **0.16**

Data Set	**106**	**107**	**108**
TreeBASE ID	S1140/M1958	S671/M1053	S584/M880
Model 1	TrN+I+Γ	K2P+Γ	TIM+I+Γ
Model 2	HKY+I+Γ	-	K2P+Γ
Model 3	-	-	K2P+I
1 vs. 2	0 / **0**	-	$\bar{x}$ 5.50 / **0.25**
1 vs. 3	-	-	6 / **0.27**
2 vs. 3	-	-	$\bar{x}$ 0.10 / **0.00**

1 vs. K2P	15 / **0.48**	3 / **0.21**	6 / **0.27**
2 vs. K2P	15 / **0.48**	-	$\bar{x}$ 0.50 / **0.02**
3 vs. K2P	-	-	0 / **0**
1 vs. MP	$\bar{x}$ 19 / **0.61**	$\bar{x}$ 4.50 / **0.32**	$\bar{x}$ 4.71 / **0.21**
2 vs. MP	$\bar{x}$ 19 / **0.61**	-	$\bar{x}$ 5.54 / **0.25**
3 vs. MP	-	-	$\bar{x}$ 5.54 / **0.25**

Data Set	**109**	**110**	**111**
TreeBASE ID	S753/M1189	S533/M780	S375/M515
Model 1	-	TIM+Γ	TVM+Γ
Model 2	-	K3Puf+I+Γ	TrN+I+Γ
Model 3	-	HKY+Γ	HKY+Γ
1 vs. 2	-	0 / **0**	$\bar{x}$ 0.50 / **0.02**
1 vs. 3	-	0 / **0**	$\bar{x}$ 0.50 / **0.02**
2 vs. 3	-	0 / **0**	$\bar{x}$ 0.50 / **0.02**
1 vs. K2P	-	6 / **0.21**	$\bar{x}$ 12.50 / **0.45**
2 vs. K2P	-	6 / **0.21**	$\bar{x}$ 12.50 / **0.45**
3 vs. K2P	-	6 / **0.21**	13 / **0.46**
1 vs. MP	-	$\bar{x}$ 21.60 / **0.77**	$\bar{x}$ 13.39 / **0.48**
2 vs. MP	-	$\bar{x}$ 21.60 / **0.77**	$\bar{x}$ 13.39 / **0.48**
3 vs. MP	-	$\bar{x}$ 21.60 / **0.77**	$\bar{x}$ 13.89 / **0.50**

Data Set	**112**	**113**	**114**
TreeBASE ID	S1197/M2066	S884/M1435	S1322/M2318
Model 1	HKY+Γ	TVM+Γ	GTR+I+Γ
Model 2	HKY+I	HKY+Γ	TIMef+I+Γ
Model 3	HKY	-	-

1 vs. 2	0 / **0**	0 / **0**	10 / **0.08**
1 vs. 3	6 / **0.67**	-	-
2 vs. 3	6 / **0.67**	-	-
1 vs. K2P	6 / **0.67**	0 / **0**	65 / **0.49**
2 vs. K2P	6 / **0.67**	0 / **0**	63 / **0.48**
3 vs. K2P	0 / **0**	-	-
1 vs. MP	$\bar{x}$ 4.67 / **0.52**	9 / **0.36**	$\bar{x}$ 82.09 / **0.62**
2 vs. MP	$\bar{x}$ 4.67 / **0.52**	9 / **0.36**	$\bar{x}$ 83.37 / **0.63**
3 vs. MP	$\bar{x}$ 2.67 / **0.30**	-	-

Data Set	**115**	**116**	**117**
TreeBASE ID	S941/M1560	S6x23x97c17c57c34/ M171c6x23x97c18c01c10	S557/M837
Model 1	TIM+I+Γ	GTR+I+Γ	GTR+I+Γ
Model 2	K3Puf+Γ	-	F81+I+Γ
Model 3	F81+Γ	-	-
1 vs. 2	0 / **0**	-	$\bar{x}$ 11.50 / **0.43**
1 vs. 3	8 / **0.11**	-	-
2 vs. 3	8 / **0.11**	-	-
1 vs. K2P	6 / **0.08**	12 / **0.29**	$\bar{x}$ 28 / **1.04**
2 vs. K2P	6 / **0.08**	-	25 / **0.93**
3 vs. K2P	4 / **0.05**	-	-
1 vs. MP	$\bar{x}$ 10.93 / **0.15**	16 / **0.39**	$\bar{x}$ 28 / **1.04**
2 vs. MP	$\bar{x}$ 10.93 / **0.15**	-	$\bar{x}$ 25 / **0.93**
3 vs. MP	$\bar{x}$ 11.85 / **0.16**	-	-

Data Set	**118**	**119**	**120**
TreeBASE ID	S703/M1124	S1089/M1864	S1020/M1727

Model 1	TVM+Γ	TVM+I+Γ	GTR+I+Γ
Model 2	K3Puf+Γ	TVM+Γ	TVM+I+Γ
1 vs. 2	0 / **0**	0 / **0**	N/A
1 vs. K2P	$\bar{x}$ 9.50 / **0.10**	$\bar{x}$ 8 / **0.07**	N/A
2 vs. K2P	$\bar{x}$ 9.50 / **0.10**	$\bar{x}$ 8 / **0.07**	N/A
1 vs. MP	$\bar{x}$ 10.91 / **0.12**	$\bar{x}$ 27.34 / **0.25**	N/A
2 vs. MP	$\bar{x}$ 10.91 / **0.12**	$\bar{x}$ 27.34 / **0.25**	N/A

Data Set	**121**	**122**	**123**
TreeBASE ID	S1278/M2234	S1097/M1877	S619/M955
Model 1	TVM+I+Γ	GTR+I+Γ	GTR+I+Γ
Model 2	K3Puf+I+Γ	K2P+I+Γ	SYM+I+Γ
Model 3	-	K2P+I	-
1 vs. 2	0 / **0**	8 / **0.35**	1 / **0.06**
1 vs. 3	-	0 / **0**	-
2 vs. 3	-	8 / **0.35**	-
1 vs. K2P	2 / **0.05**	14 / **0.61**	13 / **0.72**
2 vs. K2P	2 / **0.05**	14 / **0.61**	14 / **0.78**
3 vs. K2P	-	14 / **0.61**	-
1 vs. MP	$\bar{x}$ 6 / **0.14**	$\bar{x}$ 14.86 / **0.65**	$\bar{x}$ 15.67 / **0.87**
2 vs. MP	$\bar{x}$ 6 / **0.14**	$\bar{x}$ 11.57 / **0.50**	$\bar{x}$ 16.67 / **0.93**
3 vs. MP	-	$\bar{x}$ 14.86 / **0.65**	-

Data Set	**124**	**125**	**126**
TreeBASE ID	S902/M1482	S824/M1323	S667/M1048
Model 1	HKY+I+Γ	TrN+I+Γ	TIM+I+Γ
Model 2	K2P+I+Γ	TrNef+I+Γ	TIM+Γ

Model 3	-	-	TrN+Γ
1 vs. 2	8 / **0.35**	0 / **0**	0 / **0**
1 vs. 3	-	-	0 / **0**
2 vs. 3	-	-	0 / **0**
1 vs. K2P	5 / **0.22**	9 / **0.50**	2 / **0.07**
2 vs. K2P	11 / **0.48**	9 / **0.50**	2 / **0.07**
3 vs. K2P	-	-	2 / **0.07**
1 vs. MP	$\bar{x}$ 15.39 / **0.67**	$\bar{x}$ 8.83 / **0.49**	$\bar{x}$ 5 / **0.17**
2 vs. MP	$\bar{x}$ 18.49 / **0.80**	$\bar{x}$ 8.83 / **0.49**	$\bar{x}$ 5 / **0.17**
3 vs. MP	-	-	$\bar{x}$ 5 / **0.17**

Data Set	**127**	**128**	**129**
TreeBASE ID	S700/M1118	S1061/M1811	S731/M1163
Model 1	GTR+I+Γ	TrN+Γ	GTR+I+Γ
Model 2	TrN+I+Γ	HKY+Γ	TrN+I+Γ
Model 3	-	HKY+I	-
1 vs. 2	0 / **0**	0 / **0**	2 / **0.04**
1 vs. 3	-	0 / **0**	-
2 vs. 3	-	0 / **0**	-
1 vs. K2P	2 / **0.13**	0 / **0**	19 / **0.38**
2 vs. K2P	2 / **0.13**	0 / **0**	19 / **0.38**
3 vs. K2P	-	0 / **0**	-
1 vs. MP	$\bar{x}$ 3 / **0.19**	$\bar{x}$ 7.60 / **0.51**	$\bar{x}$ 20.14 / **0.40**
2 vs. MP	$\bar{x}$ 3 / **0.19**	$\bar{x}$ 7.60 / **0.51**	$\bar{x}$ 21.39 / **0.43**
3 vs. MP	-	$\bar{x}$ 7.60 / **0.51**	-

Data Set	**130**	**131**	**132**

TreeBASE ID	S1307/M2290	S470/M685	S681/M1066
Model 1	TVM+I	GTR+I+Γ	-
Model 2	K3Puf+Γ	-	-
Model 3	K3Puf+I	-	-
1 vs. 2	0 / **0**	-	-
1 vs. 3	0 / **0**	-	-
2 vs. 3	0 / **0**	-	-
1 vs. K2P	0 / **0**	19 / **0.28**	-
2 vs. K2P	0 / **0**	-	-
3 vs. K2P	0 / **0**	-	-
1 vs. MP	0 / **0**	$\bar{x}$ 16.59 / **0.25**	-
2 vs. MP	0 / **0**	-	-
3 vs. MP	0 / **0**	-	-

Data Set	**133**	**134**	**135**
TreeBASE ID	S1052/M1793	S284/M322	S1071/M1827
Model 1	GTR+I+Γ	TIM+I+Γ	TIM+I+Γ
Model 2	TrN+I+Γ	TIMef+I+Γ	TrN+I+Γ
Model 3	TrNef+I+Γ	-	-
1 vs. 2	12 / **0.14**	6 / **0.30**	0 / **0**
1 vs. 3	17 / **0.20**	-	-
2 vs. 3	5 / **0.06**	-	-
1 vs. K2P	44 / **0.52**	0 / **0**	6 / **0.23**
2 vs. K2P	50 / **0.60**	6 / **0.30**	6 / **0.23**
3 vs. K2P	51 / **0.61**	-	-
1 vs. MP	$\bar{x}$ 53 / **0.63**	$\bar{x}$ 23 / **1.15**	$\bar{x}$ 13.71 / **0.53**
2 vs. MP	$\bar{x}$ 59 / **0.70**	$\bar{x}$ 23 / **1.15**	$\bar{x}$ 13.71 / **0.53**
3 vs. MP	$\bar{x}$ 56 / **0.67**	-	-

Data Set	**136**	**137**	**138**
TreeBASE ID	S554/M825	S1037/M1765	S816/M1305
Model 1	TVM+I+Γ	TIM+Γ	TrN+I+Γ
Model 2	K3Puf+Γ	F81+Γ	TrNef+I+Γ
Model 3	-	F81+I	-
1 vs. 2	5 / **0.33**	2 / **0.12**	6 / **0.15**
1 vs. 3	-	2 / **0.12**	-
2 vs. 3	-	0 / **0**	-
1 vs. K2P	5 / **0.33**	0 / **0**	6 / **0.15**
2 vs. K2P	0 / **0**	2 / **0.12**	0 / **0**
3 vs. K2P	-	2 / **0.12**	-
1 vs. MP	5 / **0.33**	$\bar{x}$ 4 / **0.24**	$\bar{x}$ 14.78 / **0.37**
2 vs. MP	0 / **0**	$\bar{x}$ 3.50 / **0.21**	$\bar{x}$ 18.79 / **0.47**
3 vs. MP	-	$\bar{x}$ 3.50 / **0.21**	-

Data Set	**139**	**140**	**141**
TreeBASE ID	S643/M1000	S669/M1051	S1230/ M2141
Model 1	TrN+Γ	GTR+I+Γ	TVM+Γ
Model 2	TrN	-	K3Puf+Γ
Model 3	HKY	-	-
1 vs. 2	0 / **0**	-	0 / **0**
1 vs. 3	0 / **0**	-	-
2 vs. 3	0 / **0**	-	-
1 vs. K2P	0 / **0**	6 / **0.46**	0 / **0**
2 vs. K2P	0 / **0**	-	0 / **0**
3 vs. K2P	0 / **0**	-	-

1 vs. MP	0 / **0**	$\bar{x}$ 7.33 / **0.56**	$\bar{x}$ 5 / **0.05**
2 vs. MP	0 / **0**	-	$\bar{x}$ 5 / **0.05**
3 vs. MP	0 / **0**	-	-

Data Set	**142**	**143**	**144**
TreeBASE ID	S647/M1013	S1296/M2273	S397/M565
Model 1	TIM+I+Γ	TrNef+Γ	GTR+I+Γ
Model 2	TIMef+I+Γ	K2P+Γ	GTR+Γ
Model 3	-	-	TrN+I+Γ
1 vs. 2	$\bar{x}$ 2.50 / **0.05**	0 / **0**	0 / **0**
1 vs. 3	-	-	0 / **0**
2 vs. 3	-	-	0 / **0**
1 vs. K2P	$\bar{x}$ 13.50 / **0.25**	0 / **0**	2 / **0.14**
2 vs. K2P	$\bar{x}$ 11.50 / **0.21**	0 / **0**	2 / **0.14**
3 vs. K2P	-	-	2 / **0.14**
1 vs. MP	$\bar{x}$ 24.72 / **0.46**	$\bar{x}$ 5 / **0.07**	4 / **0.29**
2 vs. MP	$\bar{x}$ 49.35 / **0.91**	$\bar{x}$ 5 / **0.07**	4 / **0.29**
3 vs. MP	-	-	4 / **0.29**

Data Set	**145**	**146**	**147**
TreeBASE ID	S404/M584	S997/M1673	S422/M616
Model 1	GTR+I+Γ	-	TVM+I+Γ
Model 2	TrNef+I+Γ	-	TVM+Γ
Model 3	-	-	K3Puf+I+Γ
1 vs. 2	0 / **0**	-	3 / **0.13**
1 vs. 3	-	-	1 / **0.04**
2 vs. 3	-	-	2 / **0.09**

1 vs. K2P	0 / **0**	-	7 / **0.30**
2 vs. K2P	0 / **0**	-	8 / **0.35**
3 vs. K2P	-	-	8 / **0.35**
1 vs. MP	0 / **0**	-	$\bar{x}$ 8 / **0.35**
2 vs. MP	0 / **0**	-	$\bar{x}$ 9 / **0.39**
3 vs. MP	-	-	$\bar{x}$ 9 / **0.39**

Data Set	**148**	**149**	**150**
TreeBASE ID	S818/M1310	S357/M489	S1177/M2035
Model 1	TIMef+I	TVM+I+Γ	TVM+Γ
Model 2	K2P+Γ	TrN+I+Γ	SYM+Γ
Model 3	K2P+I	TVMef+I+Γ	TVMef+Γ
1 vs. 2	0 / **0**	0 / **0**	26 / **0.27**
1 vs. 3	0 / **0**	2 / **0.10**	26 / **0.27**
2 vs. 3	0 / **0**	2 / **0.10**	0 / **0**
1 vs. K2P	0 / **0**	10 / **0.48**	13 / **0.13**
2 vs. K2P	0 / **0**	10 / **0.48**	21 / **0.22**
3 vs. K2P	0 / **0**	8 / **0.38**	21 / **0.22**
1 vs. MP	$\bar{x}$ 0.50 / **0.04**	$\bar{x}$ 12 / **0.57**	$\bar{x}$ 34.57 / **0.36**
2 vs. MP	$\bar{x}$ 0.50 / **0.04**	$\bar{x}$ 12 / **0.57**	$\bar{x}$ 39.73 / **0.41**
3 vs. MP	$\bar{x}$ 0.50 / **0.04**	$\bar{x}$ 10 / **0.48**	$\bar{x}$ 39.73 / **0.41**

Data Set	**151**	**152**	**153**
TreeBASE ID	S726/M1157	S351/M468	S971/M1612
Model 1	TVM+Γ	GTR+I+Γ	TIM
Model 2	HKY+Γ	TVM+I+Γ	F81
Model 3	-	HKY+I+Γ	-

1 vs. 2	0 / **0**	$\bar{x}$ 0.50 / **0.01**	0 / **0**
1 vs. 3	-	1 / **0.01**	-
2 vs. 3	-	$\bar{x}$ 0.50 / **0.01**	-
1 vs. K2P	2 / **0.20**	21 / **0.23**	0 / **0**
2 vs. K2P	2 / **0.20**	$\bar{x}$ 20.50 / **0.23**	0 / **0**
3 vs. K2P	-	20 / **0.22**	-
1 vs. MP	$\bar{x}$ 2.50 / **0.25**	$\bar{x}$ 30 / **0.33**	0 / **0**
2 vs. MP	$\bar{x}$ 2.50 / **0.25**	$\bar{x}$ 29.50 / **0.33**	0 / **0**
3 vs. MP	-	$\bar{x}$ 29 / **0.32**	-

Data Set	**154**	**155**	**156**
TreeBASE ID	S1006/M1698	S1057/M1802	S658/M1032
Model 1	GTR+I+Γ	GTR+I+Γ	F81
Model 2	TrNef+I+Γ	-	-
Model 3	K3P+I	-	-
Model 4	K2P+I+Γ	-	-
1 vs. 2	0 / **0**	-	-
1 vs. 3	0 / **0**	-	-
1 vs. 4	0 / **0**	-	-
2 vs. 3	0 / **0**	-	-
2 vs. 4	0 / **0**	-	-
3 vs. 4	0 / **0**	-	-
1 vs. K2P	2 / **0.06**	6 / **0.32**	0 / **0**
2 vs. K2P	2 / **0.06**	-	-
3 vs. K2P	2 / **0.06**	-	-
4 vs. K2P	2 / **0.06**	-	-
1 vs. MP	$\bar{x}$ 8.87 / **0.24**	$\bar{x}$ 1 / **0.05**	$\bar{x}$ 1 / **0.14**
2 vs. MP	$\bar{x}$ 8.87 / **0.24**	-	-

3 vs. MP	$\bar{x}$ 8.87 / **0.24**	-	-
4 vs. MP	$\bar{x}$ 8.87 / **0.24**	-	-

Data Set	**157**	**158**	**159**
TreeBASE ID	S657/M1031	S1180/M2041	S1090/M1865
Model 1	GTR+I+Γ	GTR+I+Γ	SYM+I
Model 2	GTR+I	TIM+I+Γ	K2P+I
Model 3	TrN+I+Γ	-	-
1 vs. 2	0 / **0**	0 / **0**	0 / **0**
1 vs. 3	0 / **0**	-	-
2 vs. 3	0 / **0**	-	-
1 vs. K2P	0 / **0**	3 / **0.08**	0 / **0**
2 vs. K2P	0 / **0**	3 / **0.08**	0 / **0**
3 vs. K2P	0 / **0**	-	-
1 vs. MP	0 / **0**	$\bar{x}$ 9.33 / **0.24**	0 / **0**
2 vs. MP	0 / **0**	$\bar{x}$ 9.33 / **0.24**	0 / **0**
3 vs. MP	0 / **0**	-	-

Data Set	**160**	**161**	**162**
TreeBASE ID	S466/M680	S799/M1265	S757/M1197
Model 1	GTR+Γ	TVM+I+Γ	TIMef+Γ
Model 2	TIM+Γ	TVMef+Γ	TrNef+Γ
Model 3	-	HKY+Γ	K2P+Γ
1 vs. 2	0 / **0**	20 / **0.53**	$\bar{x}$ 9.45 / **0.15**
1 vs. 3	-	1 / **0.03**	$\bar{x}$ 22.34 / **0.37**
2 vs. 3	-	21 / **0.55**	$\bar{x}$ 19.45 / **0.32**
1 vs. K2P	2 / **0.17**	22 / **0.58**	$\bar{x}$ 18.80 / **0.31**

2 vs. K2P	2 / **0.17**	12 / **0.32**	$\bar{x}$ 18.04 / **0.30**
3 vs. K2P	-	23 / **0.61**	$\bar{x}$ 21.53 / **0.35**
1 vs. MP	2 / **0.17**	$\bar{x}$ 21.06 / **0.55**	$\bar{x}$ 35.66 / **0.58**
2 vs. MP	2 / **0.17**	$\bar{x}$ 20.51 / **0.54**	$\bar{x}$ 37.84 / **0.62**
3 vs. MP	-	$\bar{x}$ 21.06 / **0.55**	$\bar{x}$ 40.54 / **0.66**

Data Set	**163**	**164**	**165**
TreeBASE ID	S928/M1538	S1023/M1734	S1229/M2139
Model 1	GTR+I+Γ	-	HKY+Γ
Model 2	TrN+I+Γ	-	HKY+I
Model 3	TrNef+I+Γ	-	HKY
1 vs. 2	4 / **0.06**	-	$\bar{x}$ 1 / **0.04**
1 vs. 3	4 / **0.06**	-	0 / **0**
2 vs. 3	0 / **0**	-	$\bar{x}$ 1 / **0.04**
1 vs. K2P	4 / **0.06**	-	$\bar{x}$ 1 / **0.04**
2 vs. K2P	0 / **0**	-	$\bar{x}$ 1 / **0.04**
3 vs. K2P	0 / **0**	-	$\bar{x}$ 1 / **0.04**
1 vs. MP	$\bar{x}$ 20.36 / **0.29**	-	$\bar{x}$ 2 / **0.08**
2 vs. MP	$\bar{x}$ 16.36 / **0.23**	-	$\bar{x}$ 2 / **0.08**
3 vs. MP	$\bar{x}$ 16.36 / **0.23**	-	$\bar{x}$ 2 / **0.08**

Data Set	**166**	**167**	**168**
TreeBASE ID	S305/M347	S1161/M1998	S414/M604
Model 1	GTR+I+Γ	TrNef+I+Γ	HKY
Model 2	TrNef+I+Γ	TrNef+Γ	-
Model 3	-	K2P+I+Γ	-
1 vs. 2	7 / **0.18**	0 / **0**	-

1 vs. 3	-	0 / **0**	-
2 vs. 3	-	0 / **0**	-
1 vs. K2P	3 / **0.08**	16 / **0.62**	0 / **0**
2 vs. K2P	4 / **0.11**	16 / **0.62**	-
3 vs. K2P	-	16 / **0.62**	-
1 vs. MP	$\bar{x}$ 7.42 / **0.20**	16 / **0.62**	0 / **0**
2 vs. MP	$\bar{x}$ 9.92 / **0.26**	16 / **0.62**	-
3 vs. MP	-	16 / **0.62**	-
Data Set	**169**	**170**	**171**
TreeBASE ID	S1059/M1806	S969/M1606	S1125/M1928
Model 1	GTR+I+Γ	K3Puf+Γ	TrN+Γ
Model 2	TrN+I+Γ	K3Puf+I	TrNef+Γ
Model 3	TrNef+I+Γ	K3Puf	-
1 vs. 2	2 / **0.06**	3 / **0.06**	0 / **0**
1 vs. 3	2 / **0.06**	3 / **0.06**	-
2 vs. 3	0 / **0**	0 / **0**	-
1 vs. K2P	6 / **0.19**	$\bar{x}$ 3 / **0.06**	0 / **0**
2 vs. K2P	4 / **0.13**	$\bar{x}$ 4.67 / **0.09**	0 / **0**
3 vs. K2P	4 / **0.13**	$\bar{x}$ 4.67 / **0.09**	-
1 vs. MP	$\bar{x}$ 5 / **0.16**	$\bar{x}$ 6.45 / **0.12**	$\bar{x}$ 0.50 / **0.04**
2 vs. MP	$\bar{x}$ 5 / **0.16**	$\bar{x}$ 6.82 / **0.13**	$\bar{x}$ 0.50 / **0.04**
3 vs. MP	$\bar{x}$ 5 / **0.16**	$\bar{x}$ 6.82 / **0.13**	-
Data Set	**172**	**173**	**174**
TreeBASE ID	S1301/M2279	S543/M801	S1041/M1775
Model 1	K3Puf+I+Γ	GTR+I+Γ	HKY+Γ

Model 2	HKY+I+Γ	-	-
1 vs. 2	0 / **0**	-	-
1 vs. K2P	16 / **0.27**	10 / **0.29**	47 / **0.49**
2 vs. K2P	16 / **0.27**	-	-
1 vs. MP	$\bar{x}$ 20.33 / **0.34**	14 / **0.41**	$\bar{x}$ 81.81 / **0.85**
2 vs. MP	$\bar{x}$ 20.33 / **0.34**	-	-

Data Set	**175**	**176**	**177**
TreeBASE ID	S701/M1119	S887/M1438	S1199/M2068
Model 1	TVM+Γ	TVM+I+Γ	TVM+Γ
Model 2	TVM+I	HKY+I+Γ	HKY+Γ
Model 3	K3Puf+I	-	-
1 vs. 2	0 / **0**	$\bar{x}$ 1.50 / **0.05**	7 / **0.14**
1 vs. 3	0 / **0**	-	-
2 vs. 3	0 / **0**	-	-
1 vs. K2P	3 / **0.27**	1 / **0.03**	7 / **0.14**
2 vs. K2P	3 / **0.27**	$\bar{x}$ 10.17 / **0.34**	0 / **0**
3 vs. K2P	3 / **0.27**	-	-
1 vs. MP	$\bar{x}$ 4.83 / **0.44**	$\bar{x}$ 12.74 / **0.42**	$\bar{x}$ 9.52 / **0.19**
2 vs. MP	$\bar{x}$ 4.83 / **0.44**	$\bar{x}$ 13.72 / **0.46**	$\bar{x}$ 10.89 / **0.22**
3 vs. MP	$\bar{x}$ 4.83 / **0.44**	-	-

Data Set	**178**	**179**	**180**
TreeBASE ID	S655/M1029	S709/M1131	S1028/M1746
Model 1	GTR+I+Γ	-	HKY+Γ
Model 2	TrN+I+Γ	-	-
1 vs. 2	14 / **0.18**	-	-

1 vs. K2P	49 / **0.63**	-	0 / **0**
2 vs. K2P	41 / **0.53**	-	-
1 vs. MP	$\bar{x}$ 64.93 / **0.83**	-	0 / **0**
2 vs. MP	$\bar{x}$ 62.71 / **0.80**	-	-

Data Set	**181**	**182**	**183**
TreeBASE ID	S833/M1334	S672/M1054	S331/M433
Model 1	HKY+Γ	TrN+Γ	HKY+I
Model 2	-	-	JC+Γ
Model 3	-	-	JC+I
1 vs. 2	-	-	0 / **0**
1 vs. 3	-	-	0 / **0**
2 vs. 3	-	-	0 / **0**
1 vs. K2P	1 / **0.03**	3 / **0.17**	0 / **0**
2 vs. K2P	-	-	0 / **0**
3 vs. K2P	-	-	0 / **0**
1 vs. MP	$\bar{x}$ 4.75 / **0.16**	$\bar{x}$ 6.67 / **0.37**	0 / **0**
2 vs. MP	-	-	0 / **0**
3 vs. MP	-	-	0 / **0**

Data Set	**184**	**185**	**186**
TreeBASE ID	S903/M1483	S1162/M1999	S1001/M1692
Model 1	TrN+Γ	TVM+I+Γ	HKY
Model 2	SYM+Γ	TVM+Γ	K2P
Model 3	-	HKY+Γ	-
1 vs. 2	$\bar{x}$ 5.28 / **0.08**	0 / **0**	0 / **0**
1 vs. 3	-	0 / **0**	-

2 vs. 3	-	0 / **0**	-
1 vs. K2P	$\bar{x}$ 7 / **0.10**	0 / **0**	0 / **0**
2 vs. K2P	$\bar{x}$ 7 / **0.10**	0 / **0**	0 / **0**
3 vs. K2P	-	0 / **0**	-
1 vs. MP	$\bar{x}$ 17.40 / **0.25**	$\bar{x}$ 2.43 / **0.12**	$\bar{x}$ 4.16 / **0.38**
2 vs. MP	$\bar{x}$ 13.88 / **0.20**	$\bar{x}$ 2.43 / **0.12**	$\bar{x}$ 4.16 / **0.38**
3 vs. MP	-	$\bar{x}$ 2.43 / **0.12**	-

Data Set	**187**	**188**	**189**
TreeBASE ID	S892/M1465	S1195/M2064	S798/M1263
Model 1	TVM+Γ	TrN+I+Γ	GTR+I+Γ
Model 2	HKY+Γ	HKY+I+Γ	-
1 vs. 2	0 / **0**	3 / **0.02**	-
1 vs. K2P	0 / **0**	23 / **0.19**	8 / **0.22**
2 vs. K2P	0 / **0**	24 / **0.20**	-
1 vs. MP	$\bar{x}$ 1.50 / **0.09**	$\bar{x}$ 34.66 / **0.29**	$\bar{x}$ 26.67 / **0.74**
2 vs. MP	$\bar{x}$ 1.50 / **0.09**	$\bar{x}$ 33.70 / **0.28**	-

Data Set	**190**	**191**	**192**
TreeBASE ID	S1018/M1725	S1155/M1984	S979/M1629
Model 1	GTR+I+Γ	TrN+Γ	GTR+I+Γ
Model 2	TrN+I+Γ	HKY	TrN+I+Γ
1 vs. 2	0 / **0**	0 / **0**	4 / **0.09**
1 vs. K2P	2 / **0.09**	0 / **0**	6 / **0.13**
2 vs. K2P	2 / **0.09**	0 / **0**	4 / **0.09**
1 vs. MP	2 / **0.09**	$\bar{x}$ 0.50 / **0.04**	18 / **0.40**
2 vs. MP	2 / **0.09**	$\bar{x}$ 0.50 / **0.04**	16 / **0.36**

Data Set	**193**	**194**	**195**
TreeBASE ID	S532/M779	S935/M1550	S1101/M1883
Model 1	-	GTR+I	GTR+I+Γ
Model 2	-	TrN+I	TIMef+Γ
Model 3	-	TrNef+Γ	TrN+Γ
1 vs. 2	-	0 / **0**	0 / **0**
1 vs. 3	-	0 / **0**	0 / **0**
2 vs. 3	-	0 / **0**	0 / **0**
1 vs. K2P	-	0 / **0**	0 / **0**
2 vs. K2P	-	0 / **0**	0 / **0**
3 vs. K2P	-	0 / **0**	0 / **0**
1 vs. MP	-	$\bar{x}$ 0.50 / **0.03**	$\bar{x}$ 2 / **0.17**
2 vs. MP	-	$\bar{x}$ 0.50 / **0.03**	$\bar{x}$ 2 / **0.17**
3 vs. MP	-	$\bar{x}$ 0.50 / **0.03**	$\bar{x}$ 2 / **0.17**

Data Set	**196**	**197**	**198**
TreeBASE ID	S1008/M1704	S1050/M1790	S621/M959
Model 1	K3Puf+I+Γ	TVM+Γ	TIMef+Γ
Model 2	HKY+I+Γ	TVM+I	TrNef+Γ
Model 3	HKY+Γ	TVM	K2P+I
Model 4	-	-	JC+Γ
1 vs. 2	0 / **0**	0 / **0**	0 / **0**
1 vs. 3	0 / **0**	0 / **0**	0 / **0**
1 vs. 4	-	-	3 / **0.25**
2 vs. 3	0 / **0**	0 / **0**	0 / **0**
2 vs. 4	-	-	3 / **0.25**

3 vs. 4	-	-	3 / **0.25**
1 vs. K2P	0 / **0**	2 / **0.08**	0 / **0**
2 vs. K2P	0 / **0**	2 / **0.08**	0 / **0**
3 vs. K2P	0 / **0**	2 / **0.08**	0 / **0**
4 vs. K2P	-	-	3 / **0.25**
1 vs. MP	0 / **0**	$\bar{x}$ 1.50 / **0.06**	$\bar{x}$ 2.17 / **0.18**
2 vs. MP	0 / **0**	$\bar{x}$ 1.50 / **0.06**	$\bar{x}$ 2.17 / **0.18**
3 vs. MP	0 / **0**	$\bar{x}$ 1.50 / **0.06**	$\bar{x}$ 2.17 / **0.18**
4 vs. MP	-	-	$\bar{x}$ 2.17 / **0.18**

Data Set	**199**	**200**	**201**
TreeBASE ID	S1092/M1867	S914/M1512	S1312/M2300
Model 1	TVM+I	GTR+I+Γ	GTR+I+Γ
Model 2	K3Puf+Γ	GTR+Γ	TrN+I+Γ
Model 3	K3Puf+I	HKY+I+Γ	HKY+I+Γ
1 vs. 2	$\bar{x}$ 0.50 / **0.07**	0 / **0**	0 / **0**
1 vs. 3	$\bar{x}$ 0.50 / **0.07**	13 / **0.32**	0 / **0**
2 vs. 3	$\bar{x}$ 0.50 / **0.07**	13 / **0.32**	0 / **0**
1 vs. K2P	$\bar{x}$ 0.50 / **0.07**	27 / **0.66**	2 / **0.10**
2 vs. K2P	$\bar{x}$ 0.50 / **0.07**	27 / **0.66**	2 / **0.10**
3 vs. K2P	0 / **0**	18 / **0.44**	2 / **0.10**
1 vs. MP	$\bar{x}$ 0.50 / **0.07**	$\bar{x}$ 33 / **0.80**	8 / **0.38**
2 vs. MP	$\bar{x}$ 0.50 / **0.07**	$\bar{x}$ 33 / **0.80**	8 / **0.38**
3 vs. MP	$\bar{x}$ 0.50 / **0.07**	$\bar{x}$ 28 / **0.68**	8 / **0.38**

Data Set	**202**	**203**	**204**
TreeBASE ID	S1320/M2316	S838/M1354	S1044/M1780

Model 1	GTR+I+Γ	TVM+Γ	-
Model 2	TrN+I+Γ	K3Puf+Γ	-
Model 3	-	HKY+Γ	-
1 vs. 2	$\bar{x}$ 8.50 / **0.12**	0 / **0**	-
1 vs. 3	-	0 / **0**	-
2 vs. 3	-	0 / **0**	-
1 vs. K2P	23 / **0.32**	$\bar{x}$ 4.50 / **0.10**	-
2 vs. K2P	$\bar{x}$ 23.50 / **0.32**	$\bar{x}$ 4.50 / **0.10**	-
3 vs. K2P	-	$\bar{x}$ 4.50 / **0.10**	-
1 vs. MP	$\bar{x}$ 46.15 / **0.63**	$\bar{x}$ 9.61 / **0.21**	-
2 vs. MP	$\bar{x}$ 45.54 / **0.62**	$\bar{x}$ 9.61 / **0.21**	-
3 vs. MP	-	$\bar{x}$ 9.61 / **0.21**	-

Data Set	**205**	**206**	**207**
TreeBASE ID	S1295/M2266	S920/M1521	S1298/M2276
Model 1	-	-	TVM+I+Γ
Model 2	-	-	TVMef+I+Γ
Model 3	-	-	-
1 vs. 2	-	-	3 / **0.03**
1 vs. 3	-	-	-
2 vs. 3	-	-	-
1 vs. K2P	-	-	66 / **0.67**
2 vs. K2P	-	-	65 / **0.66**
3 vs. K2P	-	-	-
1 vs. MP	-	-	$\bar{x}$ 71.87 / **0.73**
2 vs. MP	-	-	$\bar{x}$ 73.32 / **0.75**
3 vs. MP	-	-	-

Data Set	**208**	**209**	**210**
TreeBASE ID	S1253/M2191	S338/M441	S565/M856
Model 1	TVM+Γ	TVM+Γ	TVM+I+Γ
Model 2	HKY+Γ	HKY+Γ	HKY+Γ
Model 3	K2P+Γ	-	K2P+Γ
Model 4	K2P+I	-	-
1 vs. 2	0 / **0**	0 / **0**	0 / **0**
1 vs. 3	0 / **0**	-	0 / **0**
1 vs. 4	0 / **0**	-	-
2 vs. 3	0 / **0**	-	0 / **0**
2 vs. 4	0 / **0**	-	-
3 vs. 4	0 / **0**	-	-
1 vs. K2P	0 / **0**	0 / **0**	0 / **0**
2 vs. K2P	0 / **0**	0 / **0**	0 / **0**
3 vs. K2P	0 / **0**	-	0 / **0**
4 vs. K2P	0 / **0**	-	-
1 vs. MP	0 / **0**	$\bar{x}$ 2.50 / **0.13**	$\bar{x}$ 7.50 / **0.17**
2 vs. MP	0 / **0**	$\bar{x}$ 2.50 / **0.13**	$\bar{x}$ 7.50 / **0.17**
3 vs. MP	0 / **0**	-	$\bar{x}$ 7.50 / **0.17**
4 vs. MP	0 / **0**	-	-

Data Set	**211**	**212**	**213**
TreeBASE ID	S1010/M1706	S604/M927	S1303/M2283
Model 1	GTR+Γ	GTR+I+Γ	K2P+I+Γ
Model 2	TrN+Γ	TrN+I+Γ	-
Model 3	-	-	-
1 vs. 2	6 / **0.04**	3 / **0.09**	-

1 vs. 3	-	-	-
2 vs. 3	-	-	-
1 vs. K2P	23 / **0.17**	10 / **0.30**	0 / **0**
2 vs. K2P	25 / **0.18**	11 / **0.33**	-
3 vs. K2P	-	-	-
1 vs. MP	$\bar{x}$ 46.29 / **0.34**	$\bar{x}$ 24.50 / **0.74**	$\bar{x}$ 23.13 / **0.83**
2 vs. MP	$\bar{x}$ 46.73 / **0.34**	$\bar{x}$ 24 / **0.73**	-
3 vs. MP	-	-	-

Data Set	**214**	**215**	**216**
TreeBASE ID	S524/M765	S837/M1353	S392/M548
Model 1	GTR+I+Γ	GTR+I+Γ	TVM+I+Γ
Model 2	TVM+I+Γ	-	K3Puf+I+Γ
Model 3	-	-	TrN+I+Γ
Model 4	-	–	SYM+I+Γ
1 vs. 2	0 / **0**	-	$\bar{x}$ 8.67 / **0.15**
1 vs. 3	-	-	$\bar{x}$ 8.50 / **0.15**
1 vs. 4	-	-	$\bar{x}$ 1 / **0.02**
2 vs. 3	-	-	$\bar{x}$ 0.67 / **0.01**
2 vs. 4	-	-	$\bar{x}$ 8.33 / **0.14**
3 vs. 4	-	-	$\bar{x}$ 8 / **0.14**
1 vs. K2P	18 / **0.75**	24 / **0.40**	50 / **0.86**
2 vs. K2P	18 / **0.75**	-	$\bar{x}$ 54 / **0.93**
3 vs. K2P	-	-	$\bar{x}$ 53.50 / **0.92**
4 vs. K2P	-	-	$\bar{x}$ 50 / **0.86**
1 vs. MP	$\bar{x}$ 18 / **0.75**	$\bar{x}$ 34.50 / **0.58**	$\bar{x}$ 68.94 / **1.19**
2 vs. MP	$\bar{x}$ 18 / **0.75**	-	$\bar{x}$ 74.26 / **1.28**
3 vs. MP	-	-	$\bar{x}$ 74.09 / **1.28**

4 vs. MP	-	-	$\bar{x}$ 69.94 / **1.21**

Data Set	**217**	**218**	**219**
TreeBASE ID	S1072/M1828	S496/M722	S1122/M1919
Model 1	GTR+I+Γ	TrNef+Γ	TIM+I+Γ
Model 2	TIM+I+Γ	TrNef+I	SYM+I+Γ
Model 3	-	-	TIMef+Γ
Model 4	-	-	TrNef+I+Γ
1 vs. 2	4 / **0.15**	0 / **0**	0 / **0**
1 vs. 3	-	-	0 / **0**
1 vs. 4	-	-	0 / **0**
2 vs. 3	-	-	0 / **0**
2 vs. 4	-	-	0 / **0**
3 vs. 4	-	-	0 / **0**
1 vs. K2P	13 / **0.50**	0 / **0**	0 / **0**
2 vs. K2P	13 / **0.50**	0 / **0**	0 / **0**
3 vs. K2P	-	-	0 / **0**
4 vs. K2P	-	-	0 / **0**
1 vs. MP	$\bar{x}$ 10.57 / **0.41**	$\bar{x}$ 1.33 / **0.11**	$\bar{x}$ 6.33 / **0.24**
2 vs. MP	$\bar{x}$ 7.10 / **0.27**	$\bar{x}$ 1.33 / **0.11**	$\bar{x}$ 6.33 / **0.24**
3 vs. MP	-	-	$\bar{x}$ 6.33 / **0.24**
4 vs. MP	-	-	$\bar{x}$ 6.33 / **0.24**

Data Set	**220**	**221**	**222**
TreeBASE ID	S1200/M2069	S983/M1636	S773/M1224
Model 1	GTR+I+Γ	GTR+I+Γ	GTR+I+Γ
Model 2	TVM+I+Γ	TrN+Γ	TVM+I+Γ

Model 3	-	K2P+I	TrN+I+Γ
1 vs. 2	32 / **0.60**	2 / **0.33**	3 / **0.12**
1 vs. 3	-	2 / **0.33**	8 / **0.32**
2 vs. 3	-	0 / **0**	11 / **0.44**
1 vs. K2P	50 / **0.94**	2 / **0.33**	20 / **0.80**
2 vs. K2P	54 / **1.02**	0 / **0**	17 / **0.68**
3 vs. K2P		0 / **0**	20 / **0.80**
1 vs. MP	$\bar{x}$ 51.20 / **0.97**	4 / **0.67**	$\bar{x}$ 17.58 / **0.70**
2 vs. MP	$\bar{x}$ 54 / **1.02**	4 / **0.67**	$\bar{x}$ 14.58 / **0.58**
3 vs. MP	-	4 / **0.67**	$\bar{x}$ 17.58 / **0.70**

Data Set	**223**	**224**	**225**
TreeBASE ID	S1310/M2295	S1126/M1930	S836/M1352
Model 1	-	TrN+I+Γ	GTR+I+Γ
Model 2	-	TrN+I	TVM+I+Γ
Model 3	-	TrNef+I	-
1 vs. 2	-	$\bar{x}$ 0.50 / **0.03**	0 / **0**
1 vs. 3	-	0 / **0**	-
2 vs. 3	-	$\bar{x}$ 0.50 / **0.03**	-
1 vs. K2P	-	4 / **0.25**	10 / **0.37**
2 vs. K2P	-	$\bar{x}$ 4.50 / **0.28**	10 / **0.37**
3 vs. K2P	-	4 / **0.25**	-
1 vs. MP	-	$\bar{x}$ 6 / **0.38**	$\bar{x}$ 19.60 / **0.73**
2 vs. MP	-	$\bar{x}$ 6.50 / **0.41**	$\bar{x}$ 19.60 / **0.73**
3 vs. MP	-	$\bar{x}$ 6 / **0.38**	-

Data Set	**226**	**227**	**228**

TreeBASE ID	S1102/M1884	S396/M564	S382/M529
Model 1	GTR+Γ	GTR+I+Γ	TrN+I
Model 2	TVMef+Γ	TrN+I+Γ	TrNef+Γ
Model 3	-	-	K2P+I
1 vs. 2	9 / **0.18**	6 / **0.16**	0 / **0**
1 vs. 3	-	-	0 / **0**
2 vs. 3	-	-	0 / **0**
1 vs. K2P	11 / **0.22**	6 / **0.16**	2 / **0.33**
2 vs. K2P	10 / **0.20**	2 / **0.05**	2 / **0.33**
3 vs. K2P	-	-	2 / **0.33**
1 vs. MP	17.44 / **0.35**	6 / **0.16**	2 / **0.33**
2 vs. MP	14.37 / **0.29**	2 / **0.05**	2 / **0.33**
3 vs. MP	-	-	2 / **0.33**

Data Set	**229**	**230**	**231**
TreeBASE ID	S1305/M2286	S962/M1594	S1007/M1700
Model 1	GTR+I+Γ	-	K3Puf+Γ
Model 2	TrN+I+Γ	-	K3Puf
1 vs. 2	$\bar{x}$ 1.50 / **0.42**	-	0 / **0**
1 vs. K2P	$\bar{x}$ 16.50 / **0.46**	-	1 / **0.06**
2 vs. K2P	18 / **0.50**	-	1 / **0.06**
1 vs. MP	$\bar{x}$ 22.50 / **0.63**	-	$\bar{x}$ 0.50 / **0.03**
2 vs. MP	$\bar{x}$ 24 / **0.67**	-	$\bar{x}$ 0.50 / **0.03**

Data Set	**232**	**233**	**234**
TreeBASE ID	S1014/M1717	S737/M1169	S1289/M2256
Model 1	GTR+I+Γ	GTR+I+Γ	-

1 vs. K2P	4 / **0.16**	4 / **0.17**	-
1 vs. MP	8 / **0.32**	2 / **0.09**	-

Data Set	**235**	**236**	**237**
TreeBASE ID	S792/M1215	S1270/M2218	S1231/M2143
Model 1	GTR+I+Γ	GTR+I+Γ	TVM+I+Γ
Model 2	-	TrN+I+Γ	HKY+I+Γ
1 vs. 2	-	5 / **0.06**	$\bar{x}$ 10.50 / **0.39**
1 vs. K2P	$\bar{x}$ 3 / **0.08**	28 / **0.35**	$\bar{x}$ 16 / **0.59**
2 vs. K2P	-	29 / **0.37**	$\bar{x}$ 17 / **0.63**
1 vs. MP	$\bar{x}$ 5.67 / **0.15**	$\bar{x}$ 35.07 / **0.44**	$\bar{x}$ 16.33 / **0.60**
2 vs. MP	-	$\bar{x}$ 36.36 / **0.46**	$\bar{x}$ 19.50 / **0.72**

Data Set	**238**	**239**	**240**
TreeBASE ID	S1075/M1832	S1070/M1826	S403/M581
Model 1	-	-	K3P+I
Model 2	-	-	K2P+Γ
1 vs. 2	-	-	0 / **0**
1 vs. K2P	-	-	0 / **0**
2 vs. K2P	-	-	0 / **0**
1 vs. MP	-	-	$\bar{x}$ 3.67 / **0.41**
2 vs. MP	-	-	$\bar{x}$ 3.67 / **0.41**

Data Set	**241**	**242**	**243**
TreeBASE ID	S1127/M1933	S1163/M2000	S537/M787
Model 1	TVM+I	GTR+I	TrN+Γ

Model 2	K2P+I	K2P+Γ	TrNef+Γ
Model 3	K2P	-	-
1 vs. 2	$\bar{x}$ 2.75 / **0.08**	$\bar{x}$ 3 / **0.43**	$\bar{x}$ 4.67 / **0.04**
1 vs. 3	$\bar{x}$ 2 / **0.06**	-	-
2 vs. 3	$\bar{x}$ 2.75 / **0.08**	-	-
1 vs. K2P	$\bar{x}$ 2 / **0.06**	$\bar{x}$ 0.50 / **0.07**	$\bar{x}$ 8.38 / **0.08**
2 vs. K2P	$\bar{x}$ 2.75 / **0.08**	4 / **0.57**	$\bar{x}$ 9.36 / **0.09**
3 vs. K2P	0 / **0**	-	-
1 vs. MP	$\bar{x}$ 4.49 / **0.14**	$\bar{x}$ 0.50 / **0.07**	$\bar{x}$ 18.56 / **0.18**
2 vs. MP	$\bar{x}$ 4.73 / **0.14**	4 / **0.57**	$\bar{x}$ 19.46 / **0.18**
3 vs. MP	$\bar{x}$ 4.49 / **0.14**	-	-

Data Set	**244**	**245**	**246**
TreeBASE ID	S1235/M2149	S1216/M2102	S1039/M1769
Model 1	GTR+I+Γ	GTR+I+Γ	TrN+I+Γ
Model 2	TrN+I+Γ	TrN+I+Γ	HKY+I+Γ
Model 3	TrNef+I+Γ	TrNef+I+Γ	HKY+I
1 vs. 2	0 / **0**	4 / **0.19**	0 / **0**
1 vs. 3	0 / **0**	4 / **0.19**	0 / **0**
2 vs. 3	0 / **0**	0 / **0**	0 / **0**
1 vs. K2P	2 / **0.14**	2 / **0.10**	2 / **0.25**
2 vs. K2P	2 / **0.14**	6 / **0.29**	2 / **0.25**
3 vs. K2P	2 / **0.14**	6 / **0.29**	2 / **0.25**
1 vs. MP	$\bar{x}$ 3.83 / **0.27**	14 / **0.67**	$\bar{x}$ 3 / **0.38**
2 vs. MP	$\bar{x}$ 3.83 / **0.27**	12 / **0.57**	$\bar{x}$ 3 / **0.38**
3 vs. MP	$\bar{x}$ 3.83 / **0.27**	12 / **0.57**	$\bar{x}$ 3 / **0.38**

Data Set	**247**	**248**	**249**

TreeBASE ID	S1060/M1809	S368/M503	S389/M543
Model 1	GTR+I+Γ	-	TrN+I+Γ
Model 2	TVM+I+Γ	-	-
1 vs. 2	0 / **0**	-	-
1 vs. K2P	10 / **0.18**	-	12 / **0.23**
2 vs. K2P	10 / **0.18**	-	-
1 vs. MP	12 / **0.21**	-	$\bar{x}$ 32.02 / **0.60**
2 vs. MP	12 / **0.21**	-	-

Data Set	**250**

TreeBASE ID	S939/M1556
Model 1	SYM+Γ
Model 2	TrNef+Γ
1 vs. 2	2 / **0.05**
1 vs. K2P	6 / **0.15**
2 vs. K2P	4 / **0.10**
1 vs. MP	$\bar{x}$ 8.71 / **0.21**
2 vs. MP	$\bar{x}$ 6.71 / **0.16**