

Nucleotide substitution model

| | <i>OPN4m</i> | <i>OPN4x</i> | <i>OPN4</i> |
|-------------|--------------|--------------|-------------|
| Model | GTR+I+G | GTR+I+G | GTR+I+G |
| A | 0.179 | 0.233 | 0.197 |
| C | 0.337 | 0.285 | 0.314 |
| G | 0.267 | 0.234 | 0.255 |
| T | 0.218 | 0.249 | 0.234 |
| $r[AC]$ | 1.117 | 1.619 | 1.374 |
| $r[AG]$ | 3.663 | 3.822 | 3.724 |
| $r[AT]$ | 1.359 | 1.137 | 1.355 |
| $r(CG)$ | 0.884 | 1.290 | 0.924 |
| $r[CT]$ | 3.271 | 3.364 | 3.337 |
| $r(GT)$ | 1.000 | 1.000 | 1.000 |
| p-inv | 0.090 | 0.246 | 0.227 |
| gamma shape | 1.430 | 1.242 | 0.745 |

Xia et al. 2003 saturation test

| | <i>OPN4m</i> | <i>OPN4x</i> | <i>OPN4</i> |
|-----------------|-------------------|-------------------|-------------------|
| ISS | 0.385 | 0.366 | 0.473 |
| ISS.c | 0.767 | 0.767 | 0.775 |
| <i>t</i> -test | 18.088 | 19.826 | 14.504 |
| <i>df</i> | 991 | 1022 | 885 |
| <i>p</i> -value | 0.000 | 0.000 | 0.000 |
| | Little saturation | Little saturation | Little saturation |