**Additional file 4: Tables containing PARRIS results of (a) PYD domain, (b) inter-domain and (c) HIN domain.**

**(a) PYD domain**

**Inferred rate distributions** for the null model (M1)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Synonymous rate** | | | | | | Rate Class | 1 | 2 | 3 | Summary | | dS | 0.63 | 2.03 | 5.34 | Mean : 1.000 | | Prob. | 0.921 | 0.000 | 0.079 | Std.Dev : 1.269 | | |  |  |  |  | | --- | --- | --- | --- | | **dN/dS ratio ω** | | | | | Rate Class | 1 | 2 | Summary | | ω | 0.00 | 1.00 | Mean : 0.479 | | Prob. | 0.521 | 0.479 | Std.Dev : 0.500 | |

**Inferred rate distributions** for the alternative model (M2)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Synonymous rate** | | | | | | Rate Class | 1 | 2 | 3 | Summary | | dS | 0.63 | 2.61 | 5.34 | Mean : 1.000 | | Prob. | 0.921 | 0.000 | 0.079 | Std.Dev : 1.269 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | **dN/dS ratio ω** | | | | | | Rate Class | 1 | 2 | 3 | Summary | | ω | 0.00 | 1.00 | 1.59 | Mean : 0.479 | | Prob. | 0.521 | 0.479 | 0.000 | Std.Dev : 0.500 | |

**(b) Inter domain**

**Inferred rate distributions** for the null model (M1)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Synonymous rate** | | | | | | Rate Class | 1 | 2 | 3 | Summary | | dS | 0.00 | 1.08 | 3.53 | Mean : 1.000 | | Prob. | 0.282 | 0.626 | 0.092 | Std.Dev : 0.935 | | |  |  |  |  | | --- | --- | --- | --- | | **dN/dS ratio ω** | | | | | Rate Class | 1 | 2 | Summary | | ω | 1.00 | 1.00 | Mean : 1.000 | | Prob. | 0.033 | 0.967 | Std.Dev : -nan | |

**Inferred rate distributions** for the alternative model (M2)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Synonymous rate** | | | | | | Rate Class | 1 | 2 | 3 | Summary | | dS | 0.00 | 0.99 | 3.42 | Mean : 1.000 | | Prob. | 0.250 | 0.644 | 0.105 | Std.Dev : 0.930 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | **dN/dS ratio ω** | | | | | | Rate Class | 1 | 2 | 3 | Summary | | ω | 0.90 | 1.00 | 1.69 | Mean : 1.693 | | Prob. | 0.000 | 0.000 | 1.000 | Std.Dev : 0.000 | |

**(c) HIN domain**

**Inferred rate distributions** for the null model (M1)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Synonymous rate** | | | | | | Rate Class | 1 | 2 | 3 | Summary | | dS | 0.63 | 2.44 | 6.72 | Mean : 1.000 | | Prob. | 0.872 | 0.096 | 0.032 | Std.Dev : 1.171 | | |  |  |  |  | | --- | --- | --- | --- | | **dN/dS ratio ω** | | | | | Rate Class | 1 | 2 | Summary | | ω | 0.74 | 1.00 | Mean : 1.000 | | Prob. | 0.000 | 1.000 | Std.Dev : 0.000 | |

**Inferred rate distributions** for the alternative model (M2)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Synonymous rate** | | | | | | Rate Class | 1 | 2 | 3 | Summary | | dS | 1.00 | 1.69 | 2.26 | Mean : 1.000 | | Prob. | 1.000 | 0.000 | 0.000 | Std.Dev : 0.000 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | **dN/dS ratio ω** | | | | | | Rate Class | 1 | 2 | 3 | Summary | | ω | 1.00 | 1.00 | 12.39 | Mean : 1.602 | | Prob. | 0.377 | 0.570 | 0.053 | Std.Dev : 2.548 | |