**Supplementary Table 2. Percentage of each TCS/PR protein type per phylum.** Phylum abbreviations are given in Table 1. Only phyla with proteins containing HK, RR or HPt domains are represented. Korarchaeota, Nanoarchaeota, Nanohaloarchaeota and phyla from the animal kingdom do not appear in the table because we have not found any protein containing HK, RR or HPt domains in the surveyed species classified in these phyla.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Phylum | RR | HK | HKRR | HPt | HKRRHPt | HK1RRHK2 | HKRR1HPtRR2 | HK1RR1HK2RR2 |
| At | 55.04 | 43.23 | 1.00 | 0.30 | 0.04 | 0.01 | 0.05 | 0.00 |
| Aq | 55.80 | 38.41 | 0.00 | 1.81 | 0.00 | 0.00 | 0.00 | 0.00 |
| Ar | 61.54 | 30.77 | 3.85 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Ba | 51.36 | 36.04 | 9.16 | 1.04 | 0.91 | 0.08 | 0.15 | 0.00 |
| Cb | 38.37 | 33.06 | 18.37 | 0.82 | 0.82 | 0.00 | 2.24 | 0.00 |
| Cd | 42.86 | 50.00 | 7.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Cm | 33.19 | 66.18 | 0.00 | 0.21 | 0.42 | 0.00 | 0.00 | 0.00 |
| L | 42.50 | 42.50 | 7.50 | 5.00 | 2.50 | 0.00 | 0.00 | 0.00 |
| V | 46.21 | 29.66 | 15.07 | 0.99 | 1.18 | 0.20 | 0.39 | 0.20 |
| Cf | 50.14 | 39.02 | 7.00 | 0.32 | 0.72 | 0.00 | 0.05 | 0.00 |
| Cr | 57.29 | 32.29 | 4.17 | 0.00 | 1.04 | 0.00 | 1.04 | 0.00 |
| Cy | 44.97 | 31.94 | 13.53 | 1.03 | 1.80 | 0.26 | 0.88 | 0.20 |
| Df | 51.25 | 34.69 | 6.88 | 0.31 | 2.81 | 0.00 | 0.63 | 0.00 |
| Dt | 54.14 | 41.77 | 1.28 | 0.23 | 0.00 | 0.47 | 0.00 | 0.00 |
| Dc | 50.00 | 46.43 | 3.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| El | 50.00 | 41.67 | 8.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Ac | 53.43 | 33.04 | 8.79 | 0.87 | 0.10 | 0.48 | 0.39 | 0.29 |
| Fb | 48.00 | 16.00 | 16.00 | 4.00 | 0.00 | 0.00 | 4.00 | 0.00 |
| Fi | 54.90 | 42.69 | 0.44 | 0.60 | 0.08 | 0.12 | 0.04 | 0.00 |
| Fu | 59.74 | 37.65 | 1.09 | 0.87 | 0.22 | 0.00 | 0.00 | 0.00 |
| Ge | 47.58 | 32.26 | 14.52 | 0.81 | 2.42 | 0.00 | 0.00 | 0.00 |
| Ni | 53.42 | 24.66 | 15.07 | 2.74 | 0.00 | 0.00 | 1.37 | 0.00 |
| Nt | 56.99 | 29.72 | 3.50 | 1.40 | 1.40 | 0.00 | 1.40 | 0.00 |
| Pl | 53.67 | 25.84 | 10.84 | 1.47 | 1.89 | 0.00 | 1.14 | 0.00 |
| A | 53.36 | 31.75 | 7.66 | 1.28 | 1.15 | 0.03 | 0.24 | 0.07 |
| B | 54.56 | 34.34 | 5.83 | 0.54 | 1.43 | 0.04 | 0.51 | 0.05 |
| D | 49.17 | 30.06 | 11.86 | 1.39 | 1.63 | 0.23 | 0.68 | 0.10 |
| E | 59.14 | 33.36 | 0.83 | 0.65 | 4.07 | 0.00 | 0.07 | 0.00 |
| G | 52.58 | 34.48 | 3.99 | 0.91 | 4.36 | 0.02 | 0.27 | 0.00 |
| Z | 46.07 | 22.47 | 26.97 | 0.00 | 2.25 | 0.00 | 1.12 | 0.00 |
| S | 49.08 | 32.84 | 9.93 | 1.40 | 0.33 | 0.91 | 0.09 | 0.00 |
| Sy | 57.14 | 34.43 | 1.10 | 1.83 | 2.20 | 0.00 | 0.73 | 0.00 |
| T | 54.31 | 40.10 | 0.00 | 5.58 | 0.00 | 0.00 | 0.00 | 0.00 |
| Th | 50.00 | 31.25 | 11.25 | 1.25 | 2.50 | 0.00 | 0.00 | 0.00 |
| Tt | 53.73 | 39.55 | 0.25 | 0.00 | 1.49 | 0.00 | 0.75 | 0.00 |
| C | 63.64 | 30.30 | 0.00 | 6.06 | 0.00 | 0.00 | 0.00 | 0.00 |
| Eu | 38.20 | 47.45 | 11.49 | 0.08 | 0.15 | 0.02 | 0.05 | 0.00 |
| Ta | 59.12 | 36.82 | 0.34 | 2.36 | 0.00 | 0.00 | 0.00 | 0.00 |
| Av | 0.00 | 50.00 | 0.00 | 50.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Am | 22.73 | 0.00 | 40.91 | 9.09 | 0.00 | 0.00 | 0.00 | 4.55 |
| Eg | 6.06 | 93.94 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Mi | 66.67 | 33.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| As | 28.10 | 18.60 | 15.29 | 19.83 | 0.00 | 6.61 | 0.00 | 2.48 |
| Bs | 18.18 | 4.55 | 45.45 | 9.09 | 0.00 | 9.09 | 0.00 | 13.64 |
| Ed | 60.12 | 7.36 | 13.50 | 16.56 | 0.00 | 0.61 | 0.00 | 0.00 |
| M | 0.00 | 63.64 | 0.00 | 36.36 | 0.00 | 0.00 | 0.00 | 0.00 |