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**Supplementary Table 2 List of tRNA genes of five bacteria**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | *Ec* | *Kp* | *Sa* | *Se* | *Sp* |
| tRNA-Ala\_ggc | 2 | 2 | 0 | 2 | 0 |
| tRNA-Ala\_tgc | 3 | 3 | 3 | 3 | 4 |
| tRNA-Arg\_acg | 4 | 4 | 2 | 4 | 2 |
| tRNA-Arg\_ccg | 1 | 1 | 1 | 1 | 1 |
| tRNA-Arg\_cct | 1 | 1 | 0 | 2 | 1 |
| tRNA-Arg\_tct | 1 | 1 | 1 | 3 | 1 |
| tRNA-Asn\_gtt | 4 | 4 | 3 | 5 | 2 |
| tRNA-Asp\_gtc | 3 | 3 | 4 | 3 | 2 |
| tRNA-Cys\_gca | 1 | 1 | 1 | 1 | 1 |
| tRNA-Gln\_ctg | 2 | 2 | 0 | 2 | 0 |
| tRNA-Gln\_ttg | 2 | 2 | 2 | 2 | 2 |
| tRNA-Glu\_ttc | 4 | 4 | 3 | 4 | 5 |
| tRNA-Gly\_ccc | 1 | 1 | 0 | 1 | 0 |
| tRNA-Gly\_gcc | 4 | 4 | 2 | 4 | 2 |
| tRNA-Gly\_tcc | 1 | 1 | 5 | 1 | 2 |
| tRNA-His\_gtg | 1 | 1 | 2 | 1 | 1 |
| tRNA-Leu\_aag | 0 | 0 | 0 | 0 | 1 |
| tRNA-Ile\_gat | 3 | 3 | 2 | 3 | 2 |
| tRNA-Leu\_caa | 1 | 1 | 1 | 1 | 1 |
| tRNA-Leu\_cag | 1 | 0 | 0 | 0 | 0 |
| tRNA-Leu\_gag | 1 | 1 | 1 | 1 | 0 |
| tRNA-Leu\_taa | 1 | 1 | 2 | 1 | 2 |
| tRNA-Leu\_tag | 1 | 1 | 1 | 1 | 2 |
| tRNA-Lys\_ctt | 0 | 0 | 0 | 0 | 1 |
| tRNA-Lys\_ttt | 6 | 5 | 3 | 5 | 2 |
| tRNA-Met\_cat | 8 | 7 | 4 | 6 | 4 |
| tRNA-Phe\_gaa | 2 | 2 | 2 | 2 | 2 |
| tRNA-Pro\_cgg | 1 | 1 | 0 | 1 | 0 |
| tRNA-Pro\_ggg | 1 | 1 | 0 | 1 | 0 |
| tRNA-Pro\_tgg | 1 | 1 | 2 | 1 | 2 |
| tRNA-seC\_tca | 1 | 1 | 0 | 1 | 0 |
| tRNA-Ser\_cag | 3 | 4 | 0 | 4 | 0 |
| tRNA-Ser\_cga | 1 | 1 | 0 | 1 | 0 |
| tRNA-Ser\_gct | 1 | 1 | 1 | 1 | 1 |
| tRNA-Ser\_gga | 3 | 2 | 1 | 2 | 1 |
| tRNA-Ser\_tga | 1 | 1 | 3 | 1 | 2 |
| tRNA-Thr\_cgt | 1 | 1 | 0 | 1 | 0 |
| tRNA-Thr\_ggt | 2 | 2 | 0 | 2 | 1 |
| tRNA-Thr\_tgt | 1 | 1 | 3 | 2 | 2 |
| tRNA-Trp\_cca | 1 | 1 | 1 | 1 | 1 |
| tRNA-Tyr\_gta | 3 | 3 | 2 | 3 | 2 |
| tRNA-Val\_gac | 2 | 3 | 0 | 2 | 0 |
| tRNA-Val\_tac | 5 | 5 | 3 | 4 | 3 |
| Total | 87 | 85 | 61 | 87 | 58 |