**Table S4**. **List of predicted restriction-modification systems in the 18 genomes of the genus *Pseudovibrio****.*

|  |  |
| --- | --- |
| **Locus tag** | **R-M classification** |
| **Organism**: *Pseudovibrio* sp. FO-BEG1 | |
| FOBEG\_00264 | Solitary REase |
| FOBEG\_00736  FOBEG\_00737  FOBEG\_00739 | Type I R-M |
| FOBEG\_01576 | Solitary MTase |
| FOBEG\_03980 | Solitary REase |
| FOBEG\_04360 | Solitary REase |
| **Organism**: *Pseudovibrio* sp. JE062 | |
| JE\_062\_01971 | Solitary REase |
| JE\_062\_02647 | Solitary MTase |
| JE\_062\_03183  JE\_062\_03185 | Type II R-M |
| JE\_062\_03482  JE\_062\_03483  JE\_062\_03486 | Type I R-M |
| JE\_062\_03840 | Solitary REase |
| JE\_062\_04190 | Solitary REase |
| JE\_062\_04257  JE\_062\_04258  JE\_062\_04259 | Type I R-M |
| JE\_062\_04262 | Solitary REase |
| **Organism**: *Pseudovibrio* sp. POLY-S9 | |
| PPL9\_01789 | Solitary REase |
| PPL9\_01606 | Solitary MTase |
| PPL9\_02004 | Solitary REase |
| PPL9\_02398 | Solitary MTase |
| PPL9\_02817 | Solitary MTase |
| PPL9\_03090 | Solitary REase |
| PPL9\_03689 | Solitary MTase |
| PPL9\_04035 | Solitary MTase |
| PPL9\_04039 | Solitary MTase |
| PPL9\_04810 | Solitary MTase |
| PPL9\_05489 | Solitary MTase |
| PPL9\_06035 | Solitary MTase |
| PPL9\_05516 | Solitary MTase |
| **Organism**: *Pseudovibrio axinellae* AD2 | |
| AD2\_00388 | Solitary REase |
| AD2\_01363 | Solitary MTase |
| AD2\_02576 | Solitary MTase |
| AD2\_03078 | Solitary MTase |
| AD2\_03092 | Solitary MTase |
| AD2\_03266 | Solitary MTase |
| AD2\_03344  AD2\_03346  AD2\_03347 | Type I R-M |
| AD2\_03409 | Solitary REase |
| AD2\_03722 | Solitary REase |
| **Organism**: *Pseudovibrio* sp. AD13 | |
| AD13\_01409 | Solitary REase |
| AD13\_01430 | Solitary MTase |
| AD13\_01730 | Solitary MTase |
| AD13\_03235 | Solitary MTase |
| AD13\_03236 | Solitary MTase |
| AD13\_03701 | Solitary MTase |
| AD13\_04257 | Solitary MTase |
| AD13\_04331 | Solitary MTase |
| AD13\_05037 | Solitary MTase |
| **Organism**: *Pseudovibrio* sp. AD14 | |
| AD14\_01466 | Solitary MTase |
| AD14\_01836 | Solitary REase |
| AD14\_02595 | Solitary MTase |
| AD14\_03389 | Solitary MTase |
| AD14\_03975 | Solitary MTase |
| AD14\_03989 | Solitary MTase |
| AD14\_04026 | Solitary MTase |
| AD14\_04566 | Solitary REase |
| AD14\_04940 | Solitary REase |
| AD14\_05737 | Solitary MTase |
| Organism: *Pseudovibrio* sp. AD26 | |
| AD26\_01502 | Solitary MTase |
| AD26\_01757 | Solitary MTase |
| AD26\_03813  AD26\_03814  AD26\_03815 | Type II R-M |
| AD26\_03857 | Solitary MTase |
| AD26\_04199  AD26\_04200  AD26\_04201 | Type I R-M |
| AD26\_04282 | Solitary REase |
| AD26\_04661 | Solitary MTase |
| AD26\_04750 | Solitary REase |
| AD26\_05481 | Solitary MTase |
| AD26\_05526 | Solitary MTase |
| AD26\_05666  AD26\_05668  AD26\_05669 | Type I R-M |
| AD26\_05720  AD26\_05721  AD26\_05722 | Type I R-M |
| AD26\_05726 | Solitary REase |
| **Organism**: *Pseudovibrio* sp. AD37 | |
| AD37\_00257 | Solitary REase |
| AD37\_00786 | Solitary REase |
| AD37\_00789  AD37\_00790  AD37\_00791 | Type I R-M |
| AD37\_03704 | Solitary REase |
| AD37\_04074 | Solitary REase |
| AD37\_05357  AD37\_05359  AD37\_05360 | Type I R-M |
| **Organism**: *Pseudovibrio* sp. AD46 | |
| AD46\_01546 | Solitary MTase |
| AD46\_03379  AD46\_03380 | Type II R-M |
| AD46\_03793 | Solitary MTase |
| AD46\_03880 | Solitary MTase |
| AD46\_04011 | Solitary REase |
| AD46\_04324  AD46\_04326  AD46\_04327 | Type I R-M |
| AD46\_04397 | Solitary REase |
| AD46\_05222 | Solitary REase |
| **Organism**: *Pseudovibrio* sp. AD5 | |
| AD5\_01417 | Solitary MTase |
| AD5\_02744 | Solitary MTase |
| AD5\_03601 | Solitary MTase |
| AD5\_03686  AD5\_03687 | Type II R-M |
| AD5\_03714 | Solitary MTase |
| AD5\_03726 | Solitary MTase |
| AD5\_03836 | Solitary MTase |
| AD5\_03840 | Solitary MTase |
| AD5\_04217 | Solitary REase |
| AD5\_04654 | Solitary REase |
| AD5\_05383 | Solitary MTase |
| AD5\_05392 | Solitary MTase |
| AD5\_05419  AD5\_05420 | Type II R-M |
| AD5\_05423 | Solitary MTase |
| AD5\_05521 | Solitary REase |
| **Organism**: *Pseudovibrio* sp. W64 | |
| W64\_01662 | Solitary MTase |
| W64\_03925 | Solitary MTase |
| W64\_04406 | Solitary REase |
| W64\_04409  W64\_04410  W64\_04411 | Type I R-M |
| W64\_04606 | Solitary REase |
| W64\_04955 | Solitary REase |
| **Organism**: *Pseudovibrio* sp. W74 | |
| W74\_01041 | Solitary MTase |
| W74\_01055 | Solitary MTase |
| W74\_01989 | Solitary MTase |
| W74\_02413 | Solitary REase |
| W74\_03979 | Solitary MTase |
| W74\_04511 | Solitary MTase |
| W74\_04127 | Solitary MTase |
| W74\_04782 | Solitary REase |
| W74\_05153 | Solitary REase |
| W74\_05676 | Solitary MTase |
| **Organism**: *Pseudovibrio* sp. WM33 | |
| WM33\_00258 | Solitary REase |
| WM33\_01086 | Solitary REase |
| WM33\_01210 | Solitary MTase |
| WM33\_01810 | Solitary MTase |
| WM33\_02038 | Solitary MTase |
| WM33\_03313 | Solitary REase |
| WM33\_04231 | Solitary MTase |
| WM33\_04268 | Solitary MTase |
| WM33\_04740 | Solitary REase |
| WM33\_05196 | Solitary MTase |
| WM33\_05413  WM33\_05415 | Type II R-M |
| **Organism**: *P. ascidiaceicola* DSM-16392 | |
| PAS\_16\_01373 | Solitary MTase |
| PAS\_16\_01623 | Solitary MTase |
| PAS\_16\_01921  PAS\_16\_03352 | Solitary REase  Solitary REase |
| PAS\_16\_04255 | Solitary MTase |
| PAS\_16\_04339 | Solitary REase |
| PAS\_16\_04693 | Solitary REase |
| **Organism**: *Pseudovibrio* sp. Tun.PHSC04\_5.I4 | |
| TUN\_51\_00110 | Solitary MTase |
| TUN\_51\_01120 | Solitary MTase |
| TUN\_51\_01121 | Solitary REase |
| TUN\_51\_01234 | Solitary MTase |
| TUN\_51\_01651 | Solitary MTase |
| TUN\_51\_01671  TUN\_51\_01677  TUN\_51\_01680  TUN\_51\_01681  TUN\_51\_01682 | Type I R-M |
| TUN\_51\_01897 | Solitary REase |
| TUN\_51\_02226 | Solitary MTase |
| TUN\_51\_02235 | Solitary MTase |
| TUN\_51\_02272 | Solitary REase |
| TUN\_51\_03698 | Solitary MTase |
| TUN\_51\_03719 | Solitary MTase |
| TUN\_51\_03991 | Solitary MTase |
| TUN\_51\_04211 | Solitary MTase |
| TUN\_51\_04220 | Solitary MTase |
| TUN\_51\_04266 | Solitary MTase |
| TUN\_51\_04673  TUN\_51\_04674  TUN\_51\_04675 | Type I R-M |
| TUN\_51\_04669 | Solitary REase |
| TUN\_51\_04681 | Solitary MTase |
| TUN\_51\_04693 | Solitary MTase |
| TUN\_51\_04833 | Solitary MTase |
| TUN\_51\_04834  TUN\_51\_05579 | Solitary MTase  Solitary MTase |
| TUN\_51\_05994 | Solitary MTase |
| TUN\_51\_06214 | Solitary MTase |
| TUN\_51\_06215 | Solitary MTase |
| TUN\_51\_06126  TUN\_51\_06127 | Type II R-M |
| TUN\_51\_06132 | Solitary MTase |
| TUN\_51\_06133 | Solitary REase |
| **Organism**: *P. stylochi* UST20140214-052 | |
| P052\_00008 | Solitary REase |
| P052\_01452 | Solitary MTase |
| P052\_01515 | Solitary REase |
| P052\_02627 | Solitary REase |
| P052\_02943 | Solitary REase |
| P052\_03144 | Solitary MTase |
| **Organism**: *P. hongkongensis* UST20140214-015B | |
| P015B\_01111 | Solitary MTase |
| P015B\_01112 | Solitary MTase |
| P015B\_01351 | Solitary MTase |
| P015B\_02212 | Solitary MTase |
| P015B\_02858 | Solitary REase |
| P015B\_03082 | Solitary MTase |
| P015B\_03197 | Solitary REase |
| P015B\_03488 | Solitary REase |
| **Organism**: *P. denitrificans* JCM12308 | |
| JCM123\_01716 | Solitary MTase |
| JCM123\_04502 | Solitary REase |
| JCM123\_04898 | Solitary REase |
| JCM123\_05448  JCM123\_05449 | Type I R-M |