**Table S2.** Genomes classified as *Pbunaviruses* in this study through genome comparison. The taxonomy as listed in NCBI includes *Pbunavirus* and unclassified *Myoviridae*.

|  |  |  |  |
| --- | --- | --- | --- |
| **Phage strain** | **Genome size** | **NCBI Assigned Taxonomy** | **GenBank Accession No.** |
| PB1 | 65764 | *Pbunavirus* | NC\_011810 |
| SN | 66390 | *Pbunavirus* | NC\_011756 |
| 14-1 | 66238 | *Pbunavirus* | NC\_011703 |
| LMA2 | 66530 | *Pbunavirus* | NC\_011166 |
| LBL3 | 64427 | *Pbunavirus* | NC\_011165 |
| F8 | 66015 | *Pbunavirus* | NC\_007810 |
| BcepF1 | 72415 | *Pbunavirus* | NC\_009015 |
| PaMx13 | 66450 | *Pbunavirus* | JQ067083 |
| pp DL52 | 65867 | *Pbunavirus* | KR054028 |
| pp SPM-1 | 65729 | *Pbunavirus* | NC\_023596 |
| pp vB\_PaeM\_C1-14\_Ab28 | 66181 | unclassified *Myoviridae* | NC\_026600 |
| pp DL60 | 66103 | unclassified *Myoviridae* | KR054030 |
| pp KPP12 | 64144 | unclassified *Myoviridae* | NC\_019935 |
| pp NH-4 | 66116 | unclassified *Myoviridae* | NC\_019451 |
| pp vB\_PaeM\_PAO1\_Ab27 | 66299 | unclassified *Myoviridae* | NC\_026586 |
| pp vB\_PaeM\_PAO1\_Ab29 | 66326 | unclassified *Myoviridae* | LN610588 |
| pp JG024 | 66275 | unclassified *Myoviridae* | NC\_017674 |
| pp DL68 | 66111 | unclassified *Myoviridae* | KR054033 |
| S12-1 | 66257 | unclassified *Myoviridae* | LC102730 |
| R18 | 63560 | unclassified *Myoviridae* | LC102729 |