

Table S1. Predicted PaP3 related prophage in genome of *P. tolaasii* 2192T using various tools for prophage detection and manually predicted

Prophage in <i>P. tolaasii</i> ( <a href="https://edwards.sdsu.edu/PhiSpy/upload.php?">https://edwards.sdsu.edu/PhiSpy/upload.php?</a> )				
Tool	Coordinates	Size (kbp)/proteins	Score	Completeness
PHASTER <sup>1</sup>	6801317..6801790	54.6/76	140	intact
Prophage Hunter <sup>2</sup>	6769076..6815378	46.3/67	0.87/1	active
	6815378..6810263	24.5/39	0.73	ambiguous
Profinder <sup>3</sup>	6763248 - 6815387	52.1/73	41.2	N.A.
Manually predicted <sup>4</sup>	6762867.. 6815803	52.9/72	-	-

<sup>1</sup> Arndt, D., Grant, J., Marcu, A., Sajed, T., Pon, A., Liang, Y., Wishart, D.S. (2016) PHASTER: a better, faster version of the PHAST phage search tool. Nucleic Acids Res., 2016 May 3. <https://phaster.ca/>

<sup>2</sup> Song, W., H. X. Sun, C. Zhang, L. Cheng, Y. Peng, Z. Deng, D. Wang, Y. Wang, M. Hu, W. Liu, H. Yang, Y. Shen, J. Li, L. You and M. Xiao (2019). "Prophage Hunter: an integrative hunting tool for active prophages." Nucleic Acids Res. <https://doi.org/10.1093/nar/gkz380> <https://pro-hunter.genomics.cn/>

<sup>3</sup> Lima-Mendez, G., van Helden, J., Toussaint, A., Leplae, R. 2008. Prophinder: a computational tool for prophage prediction in pro-karyotic genomes Bioinformatics [http://aclame.ulb.ac.be/Tools/Prophinder/aclame\\_hits.html](http://aclame.ulb.ac.be/Tools/Prophinder/aclame_hits.html)

<sup>4</sup> Manually prediction was based on the alignment (a part is shown below)

gb CP020369.1 :6813515-6816088	ACTTGACCGCCAGATGCAGATGGGCGTAATGCTCAACAAGAACCGCGAGGCTGCCTTGGGA	1607
gb CP020369.1 :6766573-6781964	CAGCTCCACACAGATGCAGATGGGCGTAATGCTCAACAAGAACCGCGAGGCTGCCTTGGGA	2551
	*****	
gb CP020369.1 :6813515-6816088	TCGTCAACTTAAGGAGCGTGAGGTTACTGTCAAGGAGAAGACTGGTGACTCCCAAGTCAA	1667
gb CP020369.1 :6766573-6781964	TCGTCAAGTCAAGGAACGTGAGGTTACAGTCAAGGAGAAGACTGGGGATTCCCAAGTGAA	2611
	*****	
gb CP020369.1 :6813515-6816088	AGTAGGTGAGGGTAACCTTGCTGTCAACCAAGGTAACTTGCGAATGACACTACCAAGAC	1727
gb CP020369.1 :6766573-6781964	GGTAGGTGAGGGCAACCTCGCTGTCAACCAAGGGAAGCTTAAGAACGACACCGTTAAAC	2671
	*****	
gb CP020369.1 :6813515-6816088	CAAGGGCATCATCACCAAGTGGGACAACGACAACCGTAATGCTCAGGCATCTAATGCCAC	1787
gb CP020369.1 :6766573-6781964	TGGTGGCATCCTGAACAAGTGGGACAACGATAACAAGAAGCTCAAGCTGCTAACGCTAC	2731
	*****	
gb CP020369.1 :6813515-6816088	CAAGCGCTATGGTATGACGTGGGTGCATCCACAGCTATCCGTGGTCAAGACCTCCGGGC	1847
gb CP020369.1 :6766573-6781964	CAAGCGCTACGGTATTGACGTGGGGCATCTACAGCTATCCGTGGTCAAGACTTCCGTGA	2791
	*****	
gb CP020369.1 :6813515-6816088	TCAGACTGCTGCTGCTGGTGCCTCTANNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN	1907
gb CP020369.1 :6766573-6781964	TCAAGCTGCTGCTGCTGCTCGTGGTACCCTGAACGTGGTCAAGACATGACTCAAGAGAC	2851
	*****	
gb CP020369.1 :6813515-6816088	NN	1967
gb CP020369.1 :6766573-6781964	TG-----CCAAGCTTCGTACCGCGGCTGACTTGCTCAAGACGCTCAACGTAACGAG	2903
	*****	
gb CP020369.1 :6813515-6816088	ACCAAACTGGCTGCTGCTCAACTCCGTGCTAAGGCTTCCGAGAAGGCTGCCAAAGGACAA	2027
gb CP020369.1 :6766573-6781964	ACTACTCTAGCTGCTGCTCAGGTTCTGTGCTAAGGCAGCCGAGAAAGCAGCCAAAGGAGAA	2963
	*****	
gb CP020369.1 :6813515-6816088	AGCTTGACAACAAGGATTTTCTGGTATAATTGATTCATTCGATGGATCTGATGCTGTT	2087
gb CP020369.1 :6766573-6781964	AGCTTGACATTTAAGGATCTTCTGGTATAATTGATAGTATGGATGGGACTGACGCAGTT	3023
	*****	
gb CP020369.1 :6813515-6816088	GGTGGTAAAGAGCTTTCTAAAGAAGCTAAGGCCCGGTGAGCATCTCTGCCCGTAACCGA	2147
gb CP020369.1 :6766573-6781964	GGTGGCAAGAAGCTTTCGAAAGAAGCTCAAGCTATCGTGAACGTTCAATTCCGTAAACCGC	3083
	*****	
gb CP020369.1 :6813515-6816088	GTGATCGCCAACCCAGATCAAGATCCCAGAGTGACGGTAGTGGTGTGATCGAGTCGGTA	2207
gb CP020369.1 :6766573-6781964	ATGAAGGCAGACCTACCTCAGACCCAGCAGGTGTTATTGCTGAGCTGTACCAAGGGATC	3143
	*****	

