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Annotation of PineapplePizza: A singleton Microbacteriophage

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Microbacterium phage PineapplePizza is an actinobacteriophage categorized as a singleton. Its very short genome and has a non-contractile tail implies that it is likely within the podoviridae morphotype. In fact, many similarities to another podoviridae, Bacillus subtilis phage Φ29, have been discovered. Other than similarities in appearance and genome length (16kbp in PineapplePizza and 19kbp in Φ29), both phages’ genome ends are covalently linked with a terminal protein. The ends of both genomes also contain an inverted repeat; Φ29’s is 6bp long while that of PineapplePizza is 101bp long. The degree of similarity between these two phages is crucial in discovering more information about PineapplePizza, both the individual genes and the genome as a whole.