



Complete Genome Sequence of Lytic Bacteriophage LZ35 Infecting Acinetobacter baumannii Isolates

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Acinetobacter baumannii is a Gram-negative opportunistic pathogen that is frequently associated with nosocomial infections. Bacteriophages infecting A. baumannii can be used as effective agents to control these infections. Here, we announce the complete genome sequence of the lytic bacteriophage LZ35 infecting A. baumannii isolates.

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A cinetobacter baumannii, a nonfermentative, aerobic, Gramnegative bacillus, is a significant cause of opportunistic infections, such as ventilator-associated pneumonia, urinary tract infections, and bacteremia in intensive care units (1). Due to the increasing resistance to many classes of antibiotics among *A. baumannii* strains (2, 3), phage therapy (4, 5), an application of bacteriophages (phages) as an antibacterial agent, may be an alternative potential for controlling *A. baumannii* infection. Here, we present the complete genome sequence of lytic bacteriophage LZ35, which is infectious to *A. baumannii*.

Bacteriophage LZ35 was isolated from sewage effluents from the Jilin University First-Affiliated Hospital. The morphology of LZ35 was determined using transmission electron microscopy and demonstrated a 47-nm head diameter and a 56-nm-long contractile tail, which are characteristics of members of the family Myoviridae. Phage DNA was sequenced in an Illumina MiSeq 250-bp paired-end run with a 546-bp insert library at Suzhou Genewiz Biological Technology Co., Ltd. (Suzhou, People's Republic of China). After trimming with Trimmomatic (http://usadellab.org /cms/?page=trimmomatic) and removal of low-quality ends, 3,592,478 reads comprising a mean coverage of 17,647-fold were de-novo assembled using SSPACE (http://baseclear.com/genomics /bioinformatics/basetools/SSPACE) and GapFiller (http://baseclear .com/genomics/bioinformatics/basetools/gapfiller). Gene prediction and annotation of the phage LZ35 genome was performed using the RAST server (6). Phage LZ35 contained a 44,885-bp double-stranded DNA and a G+C content of 37.95%, with no tRNAs identified. A total of 83 coding sequences were identified. The analysis of the LZ35 genomic sequence reveals 78% and 77% matches with 97% and 99% identity to the Acinetobacter phage IME-AB2 (accession no. JX976549.1) (7) and Acinetobacter phage YMC-13-01-C62 (accession no. KJ817802.1) genomes, respectively.

The genomic data of lytic phage LZ35 will prove useful for comparative studies and for the future investigation of LZ35 acting as a potential alternative for controlling *A. baumannii* infection.

Accession number(s). The complete genome sequence of *A. baumannii* phage LZ35 has been submitted to the GenBank database under the accession number KU510289. The version described in this paper is the first version, KU510289.1.

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