

## Klebsiella pneumoniae, Strain BWH 22

### Catalog No. NR-41899

**For research use only. Not for use in humans.**

#### Contributor:

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#### Manufacturer:

BEI Resources

#### Product Description:

Bacteria Classification: Enterobacteriaceae, *Klebsiella*

Species: *Klebsiella pneumoniae*

Strain: BWH22

Original Source: *Klebsiella pneumoniae* (*K. pneumoniae*), strain BWH22 was isolated in 2012 from human urine in Boston, Massachusetts, USA.<sup>1</sup>

Comments: *K. pneumoniae*, strain BWH22 was deposited as a carbapenem-resistant strain and is part of a [Carbapenem-Resistant Enterobacteriaceae \(CRE\) Sequencing Project](#) at the Broad Institute.<sup>1,2</sup> Strain BWH 22 was deposited as resistant to meropenem, positive for *bla*<sub>KPC-2</sub> and *bla*<sub>TEM-1</sub>, MLST sequence type (ST) 258 and capsular polysaccharide (*cps*) clade I.<sup>2</sup> The complete genome of *K. pneumoniae*, strain BWH 22 has been sequenced (GenBank: [JCNO000000000](#)).

*K. pneumoniae* is a Gram-negative enterobacterium that is a major cause of nosocomial infections of the urinary and respiratory tracts. Due to the extensive spread of antibiotic-resistant strains, especially extended-spectrum  $\beta$ -lactamase (ESBL)-producing strains, there has been renewed interest in *Klebsiella* infections.<sup>3</sup>

#### Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in Tryptic Soy broth supplemented with 10% glycerol.

Note: If homogeneity is required for your intended use, please purify prior to initiating work.

#### Packaging/Storage:

NR-41899 was packaged aseptically in cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

#### Growth Conditions:

##### Media:

Nutrient broth or Tryptic Soy broth or equivalent

Nutrient agar or Tryptic Soy agar or Tryptic Soy agar with 5% defibrinated sheep blood or equivalent

##### Incubation:

Temperature: 37°C

Atmosphere: Aerobic

##### Propagation:

1. Keep vial frozen until ready for use, then thaw.
2. Transfer the entire thawed aliquot into a single tube of broth.
3. Use several drops of the suspension to inoculate an agar slant and/or plate.
4. Incubate the tube, slant and/or plate at 37°C for 1 day.

#### Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Klebsiella pneumoniae*, Strain BWH22, NR-41899."

#### Biosafety Level: 2

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. [Biosafety in Microbiological and Biomedical Laboratories \(BMBL\)](#), 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

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**References:**

1. Onderdonk, A. B., Personal Communication.
2. Cerqueira, G. C., et al. "Multi-Institute Analysis of Carbapenem Resistance Reveals Remarkable Diversity, Unexplained Mechanisms, and Clonal Outbreaks." Proc. Natl. Acad. Sci. USA 114 (2017): 1135-1140. PubMed: 28096418.
3. Podschun, R. and U. Ullmann. "*Klebsiella* spp. as Nosocomial Pathogens: Epidemiology, Taxonomy, Typing Methods, and Pathogenicity Factors." Clin. Microbiol. Rev. 11 (1998): 589-603. PubMed: 9767057.

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