

***Klebsiella pneumoniae*, Strain BIDMC 5**

Catalog No. NR-41920

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Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Enterobacteriaceae*, *Klebsiella*

Species: *Klebsiella pneumoniae*

Strain: BIDMC 5

Original Source: *Klebsiella pneumoniae* (*K. pneumoniae*), strain BIDMC 5 was isolated in 2008 from a human blood culture in Boston, Massachusetts, USA.^{1,2}

Comments: *K. pneumoniae*, strain BIDMC 5 was deposited as a carbapenem-resistant strain and is part of a [Carbapenem-Resistant Enterobacteriaceae \(CRE\) Sequencing Project](#) at the Broad Institute.^{1,2} Strain BIDMC 5 was deposited as resistant to amikacin, ampicillin/sulbactam, cefazolin, cefepime, ceftazidime, ceftriaxone, cefuroxime, ciprofloxacin, gentamicin, meropenem, piperacillin/tazobactam, tobramycin and trimethoprim/sulfamethoxazole, positive for *bla*_{KPC-3} and *bla*_{TEM-1}, MLST sequence type (ST) 258 and capsular polysaccharide (*cps*) clade II.^{1,2} The complete genome of *K. pneumoniae*, strain BIDMC 5 is available (GenBank: [JCMK00000000](#)).

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 of extended-spectrum β-lactamase (ESBL)-producing strains, there has been renewed interest in *Klebsiella* infections.³

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-41920 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:

Tryptic Soy broth or Nutrient broth or equivalent

Tryptic Soy agar or Tryptic Soy agar with 5% defibrinated sheep blood or Nutrient agar 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 BIDMC 5, NR-41920."

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](#). 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmb15/index.htm.

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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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