

Klebsiella pneumoniae, Strain VA360

Catalog No. NR-48977

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Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Enterobacteriaceae*, *Klebsiella*

Species: *Klebsiella pneumoniae*

Strain: VA360 (also referred to as VA-360 and VA 360)^{1,2}

Original Source: *Klebsiella pneumoniae* (*K. pneumoniae*), strain VA360 was isolated between January 2006 and October 2007 from a tertiary care medical center in Cleveland, Ohio, USA.^{2,3}

Comments: *K. pneumoniae*, strain VA360 was deposited as a multidrug resistant (MDR) strain with resistance to ampicillin, amoxicillin/clavulanic acid, aztreonam, cefazolin, cephalothin, chloramphenicol, gentamicin, ciprofloxacin, cefotaxime, ceftazidime, ceftriaxone, cefuroxime, cefepime, ceftiofur, doripenem, ertapenem, imipenem, levofloxacin, piperacillin, meropenem, nalidixic acid and trimethoprim/sulfamethoxazole.³ Strain VA360 was also deposited as positive for the β -lactamase genes TEM-1, KPC-2, SHV-11, SHV-12 and the *K. pneumoniae* carbapenemase (KPC) gene.¹⁻⁴ The complete genome sequence of *K. pneumoniae*, strain VA360 is available (GenBank: [ANGI000000000](https://www.ncbi.nlm.nih.gov/nuccore/ANGI000000000)).

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.⁵

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-48977 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 VA360, NR-48977."

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/bmbl5/index.htm.

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References:

1. Endimiani, A., et al. "Characterization of *bla*_{KPC}-Containing *Klebsiella pneumoniae* Isolates Detected in Different Institutions in the Eastern USA." J. Antimicrob. Chemother. 63 (2009) 427-437. PubMed: 19155227.
2. Ramirez, M. S., et al. "Multidrug Resistant (MDR) *Klebsiella pneumoniae* Clinical Isolates: A Zone of High Heterogeneity (HHZ) as a Tool for Epidemiological Studies." Clin. Microbiol. Infect. 18 (2012): E254-E258. PubMed: 22551038.
3. Tolmasky, M., Personal Communication.
4. Xie, G., et al. "Genome Sequences of Two *Klebsiella pneumoniae* Isolates from Different Geographical Regions, Argentina (Strain JHCK1) and the United States (Strain VA360)." Genome Announc. 1 (2013): e00168-13. PubMed: 23640195.
5. 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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