Product Information Sheet for HM-627

Klebsiella oxytoca, Strain MIT 10-5246

Catalog No. HM-627

For research use only. Not for human use.

Contributor:
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Manufacturer:
BEI Resources

Product Description:
Bacteria Classification: *Enterobacteriaceae, Klebsiella*
Species: Deposited as *Klebsiella oxytoca*, however the depositor's 16S sequence and the 16S sequence obtained from HM-627 align more favorably with *Raoultella ornithinolytica*[1]
Strain: MIT 10-5246 (also referred to as 10-5246)
Original Source: *Klebsiella oxytoca* (*K. oxytoca*), strain MIT 10-5246 was isolated from human blood in Kansas, USA and is resistant to ampicillin.[2,3]
Comments: *K. oxytoca,* strain MIT 10-5246 (HMP ID 9690) is a reference genome for The Human Microbiome Project (HMP). HMP is an initiative to identify and characterize human microbial flora. The complete genome of *K. oxytoca*, strain MIT 10-5246 was sequenced at the Broad Institute (GenBank: AGDM00000000).
Note: HMP material is taxonomically classified by the depositor. Quality control of these materials is only performed to demonstrate that the material distributed by BEI Resources is identical to the deposited material.

K. oxytoca is a non-motile, Gram-negative, rod-shaped bacterium that causes frequent nosocomial infections of the urinary and respiratory tracts. It is ubiquitous in the environment and is often isolated from the skin, mucous membranes and intestines of humans and animals.[4] Due to the extensive spread of antibiotic-resistant strains, especially of extended-spectrum β-lactamase (ESBL)-producing strains, there has been renewed interest in *K. oxytoca* infections.[5,6]

K. oxytoca, strain MIT 10-5246 is negative for a cytotoxin that has been associated with hemorrhagic colitis.[2]

Material Provided:
Each vial contains approximately 0.5 mL of bacterial culture in 0.5X Tryptic Soy Broth supplemented with 10% glycerol.

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

Packaging/Storage:
HM-627 was packaged aseptically, in screw-capped plastic 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 equivalent
Tryptic Soy Agar or equivalent
Incubation:
Temperature: 35°C to 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 24 hours.

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH as part of the Human Microbiome Project: *Klebsiella oxytoca*, Strain MIT 10-5246, HM-627."

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.

Disclaimers:
You are authorized to use this product for research use only. It is not intended for human use.

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References:

1. Drancourt, M., et al. "Phylogenetic Analyses of *Klebsiella* Species Delineate *Klebsiella* and *Raoultella* gen. nov., with Description of *Raoultella ornithinolytica* comb. nov., *Raoultella terrigena* comb. nov. and *Raoultella planticola* comb. nov." Int. J. Syst. Evol. Microbiol. 51 (2001): 925-932. PubMed: 11411716.
2. Professor James G. Fox, personal communication.
3. HMP 9690 (*Klebsiella oxytoca*, strain MIT 10-5246)
4. 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.
5. Decré, D., et al. "Outbreak of Multi-resistant *Klebsiella oxytoca* Involving Strains with Extended-Spectrum β-lactamases and Strains with Extended-Spectrum Activity of the Chromosomal β-lactamase." J. Antimicrob. Chemother. 54 (2004): 881-888. PubMed: 15472005.
6. Granier, S. A., et al. "Recognition of Two Genetic Groups in the *Klebsiella oxytoca* Taxon on the Basis of Chromosomal β-lactamase and Housekeeping Gene Sequences as Well as ERIC-1R PCR Typing." Int. J. Syst. Evol. Microbiol. 53 (2003): 661-668. PubMed: 12807183.

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