

***Yersinia pestis*, Strain KIM10+**

Catalog No. NR-642

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Product Description: *Y. pestis* is an aerobic, non-spore-forming, gram-negative, rod-shaped bacterium. *Y. pestis* KIM10+ is an irreversibly attenuated strain that was derived from the highly virulent KIM strain. KIM10+ lacks two of the three plasmids found in typical *Y. pestis* strains, the pCD1 plasmid that is essential for virulence as well as the pPCP1 plasmid. KIM10+ contains the pMT1 plasmid and the chromosomal virulence-associated locus *pgm*.¹

Lot²: 4464642

Manufacturing Date³: 23SEP2005

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology ⁴ Congo red (CR) agar ⁵ Analytical profile index (API 20 E [®]) Conversion of nitrate to nitrite Fermentation of glycerol	Gram-negative rods Report results Red colonies <i>Y. pestis</i> Negative Positive	Gram-negative rods Circular, low convex, entire, opaque Red colonies <i>Y. pestis</i> Negative Positive
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 470 bp)	Consistent with <i>Y. pestis</i> Identical to GenBank NC_004088	Consistent with <i>Y. pestis</i> ⁶ Identical to GenBank NC_004088
Presence of Plasmid Confirmed by PCR Amplification of Plasmid-Specific Sequence from Extracted DNA pMT1	~ 1200 bp amplicon	~ 1200 bp amplicon
Viability (post-freeze)⁴	Growth on agar	Growth on agar

¹Deng, W., et al. "Genome Sequence of *Yersinia pestis* KIM." *J. Bacteriol.* 184 (2002): 4601–4611. PubMed: 12142430.

²*Y. pestis*, strain KIM10+ was deposited by the Centers for Disease Control and Prevention, Division of Vector-Borne Infectious Diseases, Fort Collins, Colorado. The deposited material was prepared by broth (Brain Heart Infusion) culture of a single colony isolated from the CDC Reference Collection stock. NR-642 was prepared by broth (Trypticase Soy Broth; BD 211768) culture of the deposited material.

³Note: The manufacturing date indicated on the vial is incorrect.

⁴24 hours at 37°C and aerobic atmosphere with 5% CO₂ on Trypticase Soy Agar with 5% Sheep Blood.

⁵24 hours at 28°C and aerobic atmosphere on CR agar.

⁶Also consistent with other *Yersinia* species.

Date: 06 JUL 2006

Signature: Signature on File

Title: Technical Manager, BEI Authentication

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