

Genomic DNA from *Yersinia pestis*, Strain KIM10+

Catalog No. NR-2645

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Product Description: NR-2645 contains genomic DNA extracted from a preparation of *Yersinia pestis* (*Y. pestis*), strain KIM10+, biovar Medievalis.

Lot¹: 64018135

Manufacturing Date: 18FEB2016

TEST	SPECIFICATIONS	RESULTS
Sequencing of 16S Ribosomal RNA Gene (~ 1470 base pairs)	≥ 99% sequence identity to <i>Y. pestis</i> type strain (GenBank: AF366383)	99.9% sequence identity to <i>Y. pestis</i> type strain (GenBank: AF366383) ²
Presence of Plasmids Confirmed by PCR Amplification³ pMT1/pFra pCD1/pYV pPCP1/pPla/pPst	~ 1200 base pair amplicon No amplicons No amplicons	~ 1200 base pair amplicon No amplicons No amplicons
Agarose Gel Electrophoresis	High molecular weight chromosomal DNA	High molecular weight chromosomal DNA (Figure 1)
Concentration by PicoGreen[®] Measurement	0.7 to 1.5 µg in 25 to 100 µL per vial	1.23 µg in 33 µL per vial (38 µg/mL)
Functional Activity by PCR Amplification 16S ribosomal RNA gene	~ 1500 base pair amplicon	~ 1500 base pair amplicon
OD₂₆₀/OD₂₈₀ Ratio	1.7 to 2.1	1.8
Bacterial Inactivation 10% of total yield plated on Tryptic Soy agar ^{4,5}	No viable bacteria detected	No viable bacteria detected

¹The bacterial preparation used for extraction of genomic DNA was produced by culture of BEI Resources NR-642 (Lot: 4464642). Genomic DNA was extracted using proprietary technology.

²99.9% sequence identity to *Y. pestis*, strain KIM10+ (GenBank: AE009952)

³PCR was performed on NR-2645 lot 5107311, which was also produced from NR-642, lot 4464642. *Y. pestis*, strain KIM10+ is an irreversibly attenuated strain that was derived from the KIM strain and lacks the pCD1 plasmid that is essential for virulence as well as the pPCP1 plasmid. It contains the pMT1 plasmid and the chromosomal virulence-associated locus *pgm*.

⁴14 days at 37°C in an aerobic atmosphere

⁵An extraction procedure was used that has been shown to consistently inactivate 100% of Gram-negative and Gram-positive bacteria.

Date: 29 AUG 2016

Signature: 

BEI Authentication or designee

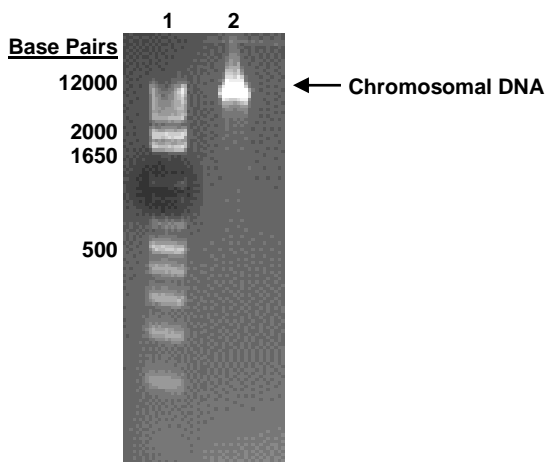
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Figure 1: Agarose Gel Electrophoresis



Lane 1: Invitrogen™ TrackIt 1 Kb Plus DNA Ladder™
Lane 2: 200 ng of NR-2645