

Yersinia pestis, Strain KIM Derivative 19 (D19)

Catalog No. NR-4681

Product Description: *Yersinia pestis* (*Y. pestis*) is an aerobic, non-spore-forming, Gram-negative rod-shaped bacterium. *Y. pestis*, strain KIM(D19) is a derivative of the KIM strain. *Y. pestis*, strain KIM(D19) contains all three virulence plasmids, but lacks the unstable *pgm* locus.

Lot¹: 58098881

Manufacturing Date: 07MAR2008

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology ² Congo red (CR) agar ³ Biochemical Analyses Analytical profile index (API 20 E®) Nitrate reduction Fermentation of glycerol Urease	Gram-negative rods Report results No red colonies Consistent with <i>Y. pestis</i> Negative Positive Negative	Gram-negative rods Circular, convex, entire, opaque (Figure 1) No red colonies Consistent with <i>Y. pestis</i> Negative Positive Negative
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 970 bp)	Identical to GenBank: AE009952 Consistent with <i>Y. pestis</i>	Identical to GenBank: AE009952 Consistent with <i>Y. pestis</i> ⁴
PCR Assay of Extracted DNA 16S ribosomal RNA gene Presence of virulence-associated plasmids pMT1 (pFra; 110 kb plasmid) pCD1 (pYV; 70 kb plasmid) pPCP1 (pPla; 9.5 kb plasmid)	~ 1500 bp amplicon ~ 1200 bp amplicon ~ 1900 bp amplicon ~ 400 bp amplicon	~ 1500 bp amplicon ~ 1200 bp amplicon ~ 1900 bp amplicon ~ 400 bp amplicon
Viability (post-freeze)²	Growth on agar	Growth on agar

¹*Y. pestis*, strain KIM(D19) was deposited by Professor Robert R. Brubaker of the Department of Microbiology and Molecular Genetics at Michigan State University, East Lansing, Michigan. NR-4681 was prepared by broth (Tryptic Soy Broth; BD 211768) culture of the deposited material for 48 hours at 28°C and aerobic atmosphere.

²48 hours at 28°C and aerobic atmosphere on Tryptic Soy Agar (BD 236950)

³7 days at 28°C and aerobic atmosphere on CR agar

⁴Also consistent with other *Yersinia* species

Figure 1



Date: 31 JUL 2008

Signature: Signature on File

Title: Technical Manager, BEI Authentication or designee

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