Certificate of Analysis for NR-4705

Genomic DNA from *Yersinia pestis*, Strain KIM Derivative 19 (D19)

Catalog No. NR-4705

Product Description: Genomic DNA was isolated from a preparation of *Yersinia pestis* (*Y. pestis*), strain KIM derivative 19 (D19).

Lot[1]: 58098888 **Manufacturing Date: 11MAR2008**

TEST	SPECIFICATIONS	RESULTS
Sequencing of 16S Ribosomal RNA Gene (~ 970 bp)	Identical to BEI Resources NR-4681 Identical to GenBank AE009952 Consistent with *Y. pestis*	Identical to BEI Resources NR-4681 Identical to GenBank AE009952 Consistent with *Y. pestis*[2]
Presence of Plasmids Confirmed by PCR Amplification pMT1 (pFra; 110 kb plasmid) pCD1 (pYV; 70 kb plasmid) pPCP1 (pPla; 9.5 kb plasmid)	 Positive Positive Positive	 Positive Positive Positive
Agarose Gel Electrophoresis	High molecular weight chromosomal DNA	High molecular weight chromosomal DNA (Figure 1)
Concentration by PicoGreen® Measurement	4 to 6 µg in 25 to 100 µL per vial	4.7 µg in 46 µL per vial (103 µg/mL)
Functional Activity by PCR Amplification 16S ribosomal RNA gene 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
OD_{260}/OD_{280} Ratio	1.7 to 1.9	1.9
Bacterial Inactivation 10% of total yield plated on Tryptic Soy Agar[3,4]	 No viable bacteria detected	 No viable bacteria detected

[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. The bacterial preparation used for extraction of genomic DNA was produced by broth (Tryptic Soy Broth; BD 211768) culture of the deposited material. After incubation for 48 hours at 28°C and aerobic atmosphere, genomic DNA was extracted using proprietary technology.
[2] Also consistent with other *Yersinia* species
[3] 7 days at 28°C in an aerobic atmosphere
[4] An extraction procedure was used that has been shown to consistently inactivate 100% of Gram-negative bacteria.

Date: 30 JUL 2008 **Signature:** Signature on File

Title: Technical Manager, BEI Authentication or designee

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

Biodefense and Emerging Infections Research Resources Repository
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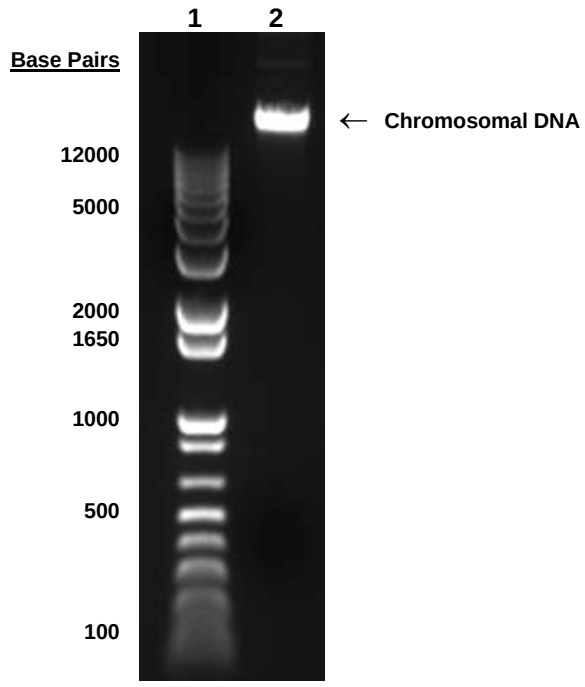
Figure 1



Lane 1: Invitrogen™ TrackIt™ 1 Kb Plus DNA Ladder
Lane 2: 200 ng of NR-4705

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