

Certificate of Analysis for NR-4714

Genomic DNA from Yersinia pestis, Strain Kuma Derivative 7 (D7)

Catalog No. NR-4714

Product Description: Genomic DNA was isolated from a preparation of *Yersinia pestis* (*Y. pestis*), strain Kuma derivative 7 (D7).

Lot¹: 57665533 Manufacturing Date: 15AUG2007

| TEST | SPECIFICATIONS | RESULTS |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Sequencing of 16S Ribosomal RNA Gene (~ 1440 bp) | Identical to BEI Resources NR-4690 Consistent with <i>Y. pestis</i> | Identical to BEI Resources NR-4690 Consistent with <i>Y. pestis</i> ² |
| Presence of Plasmids Confirmed by PCR Amplification pMT1 (pFra; 100 kb plasmid) pCD1 (pYV; 70 kb plasmid) pPCP1 (pPla; 9.5 kb plasmid) | Positive Negative Positive | Positive Negative 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 | 4.4 μg in 39 μL per vial (112 μg/mL) |
| Functional Activity by PCR Amplification 16S ribosomal RNA gene Virulence-associated plasmids pMT1 (pFra; 100 kb plasmid) pCD1 (pYV; 70 kb plasmid) pPCP1 (pPla; 9.5 kb plasmid) | ~ 1500 bp amplicon ~ 1200 bp amplicon None detected ~ 400 bp amplicon | ~ 1500 bp amplicon ~ 1200 bp amplicon None detected ~ 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 |

¹Y. pestis, strain Kuma(D7) 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.

Date: 04 SEP 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.

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²Also consistent with other Yersinia species

³7 days at 28°C in an aerobic atmosphere

⁴An extraction procedure was used that has been shown to consistently inactivate 100% of Gram-negative bacteria.



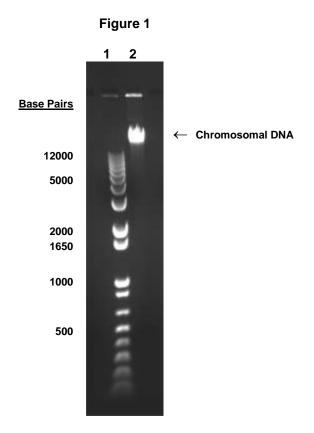
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NR-4714_57665533_04SEP2008

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Lane 1: Invitrogen™ TrackIt™ 1 Kb Plus DNA Ladder Lane 2: 200 ng of NR-4714