

## **Certificate of Analysis for NR-40613**

## Salmonella enterica subsp. enterica, Strain 14028s \( \Delta STM14:2687 \) (Serovar Typhimurium)

## Catalog No. NR-40613

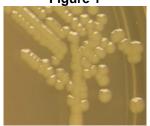
**Product Description**: Salmonella enterica (S. enterica) subsp. enterica, strain 14028s ΔSTM14:2687 (STM:2180) (serovar Typhimurium) was derived from strain 14028s. The deletion mutant was produced by creating a PCR product with STM14:2687 homologous sequences at the 5' and 3' ends of a linear fragment containing a kanamycin resistance cassette. S. enterica subsp. enterica, strain 14028s was transformed, and insertion of the kan cassette was confirmed by PCR. The final non-polar deletions were completed by elimination of the kan cassette.

Lot<sup>1</sup>: 62251358 Manufacturing Date: 15JAN2014

| TEST  | SPECIFICATIONS                  | RESULTS  |
|---|---------------------------------|--|
| Phenotypic Analysis                                     |                                 |  |
| Cellular morphology                                     | Gram-negative rod               | Gram-negative rod  |
| Colony morphology <sup>2</sup>                          | Report results                  | Circular, convex, entire, smooth and cream (Figure 1)                  |
| Motility (wet mount)                                    | Report results                  | Motile   |
| Analytical profile index (API® 20 E)3                   | Consistent with Salmonella spp. | Consistent with Salmonella spp.  |
| Genotypic Analysis                                      |                                 |  |
| Sequencing of 16S ribosomal RNA gene (~ 700 base pairs) | Consistent with S. enterica     | Consistent with S. enterica subsp. enterica                            |
| Riboprinter® Microbial Characterization System          | Consistent with S. enterica     | Consistent with <i>S. enterica</i> subsp. enterica serovar Typhimurium |
| Serogroup Verification                                  | Serogroup B                     | Serogroup B <sup>4,5</sup>   |
| Viability (post-freeze) <sup>2</sup>                    | Growth                          | Growth   |

<sup>&</sup>lt;sup>1</sup>NR-40613 was produced by inoculation of the deposited material into LB broth (supplemented with 1% Bacto-tryptone, 0.5% yeast extract and 1% sodium chloride) and grown 25 hours in an aerobic atmosphere at 37°C. Broth inoculum was added to kolles which were grown 24 hours at 37°C and aerobic atmosphere to produce this lot. Purity of this lot was accessed for 7 days under propagation conditions.

Figure 1



**Date:** 26 MAR 2014

Signature: (

Title: Technical Manager, BEI Authentication or designee

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<sup>&</sup>lt;sup>2</sup>24 hours at 37°C and aerobic atmosphere on LB agar (supplemented with 1% Bacto-tryptone, 0.5% yeast extract and 1% sodium chloride).

<sup>&</sup>lt;sup>3</sup>Additional serological tests are required to determine Salmonella species using API<sup>®</sup> 20 E.

<sup>&</sup>lt;sup>4</sup>No other serogroups were assayed.

<sup>&</sup>lt;sup>5</sup>Serogroup B contains serovar Typhimurium in addition to other serovars.