

## **Certificate of Analysis for NR-12180**

## Salmonella enterica subsp. enterica, Strain 14028s ArpoS (Serovar Typhimurium)

## Catalog No. NR-12180

**Product Description**: Salmonella enterica (S. enterica) subsp. enterica, strain 14028s  $\Delta rpoS$  (serovar Typhimurium) was derived from strain 14028s. The  $\Delta rpoS$  mutant was produced by creating a PCR product with rpoS 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 in place of rpoS was confirmed by PCR. The final non-polar deletions were constructed by elimination of the kan cassette.

Lot<sup>1</sup>: 61723943 Manufacturing Date: 03MAY2013

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 gray (Figure 1)
Analytical profile index (API <sup>®</sup> 20 E) <sup>3</sup>	Consistent with Salmonella spp.	Consistent with Salmonella spp.
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 1490 base pairs)	Consistent with S. enterica	Consistent with S. enterica subsp. enterica
Riboprinter <sup>®</sup> Microbial Characterization System	Consistent with S. enterica	Consistent with S. enterica subsp. enterica serovar Typhimurium
Serogroup Analysis	Report results	Serogroup B <sup>4</sup>
Viability (post-freeze) <sup>2</sup>	Growth	Growth

<sup>&</sup>lt;sup>1</sup>NR-12180 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 24 hours in an aerobic atmosphere at 37°C. Broth inoculum was added to kolles which was grown 24 hours at 37°C and aerobic atmosphere to produce this lot.

Figure 1

**Date:** 29 AUG 2013

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 Tryptic Soy agar with 5% defibrinated sheep blood

<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>Serogroup B contains serotype Typhimurium in addition to other serotypes