

## **Certificate of Analysis for NR-12178**

## Salmonella enterica subsp. enterica, Strain 14028s \( \Delta smpB \) (Serovar Typhimurium)

Catalog No. NR-12178

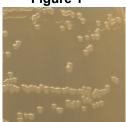
**Product Description**: Salmonella enterica (S. enterica) subsp. enterica, strain 14028s  $\Delta smpB$  (serovar Typhimurium) was derived from strain 14028s. The  $\Delta smpB$  mutant was produced by creating a PCR product with smpB homologous sequences at the 5' and 3' ends of a linear fragment containing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

Lot<sup>1</sup>: 61723940 Manufacturing Date: 17MAY2013

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)
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 (~ 930 base pairs)	Consistent with S. enterica	Consistent with S. enterica subsp. enterica
Riboprinter® 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

NR-12178 was produced by inoculation of the deposited material into Nutrient 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: 28 AUG 2013 Signature:

**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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<sup>&</sup>lt;sup>2</sup>24 hours at 37°C and aerobic atmosphere on Nutrient agar

<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