

## **Certificate of Analysis for NR-12158**

Salmonella enterica subsp. enterica, Strain 14028s phoPQ::kan<sup>r</sup> (Serovar Typhimurium)

Catalog No. NR-12158

**Product Description:** Salmonella enterica (S. enterica) subsp. enterica, strain 14028s phoPQ::kan<sup>r</sup> (serovar Typhimurium) was derived from strain 14028s. The phoPQ::kan<sup>r</sup> mutant was produced by creating a PCR product with phoPQ 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 phoPQ was confirmed by PCR.

Lot<sup>1</sup>: 61693052 Manufacturing Date: 25APR2013

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Report results	Gram-negative rod
Colony morphology <sup>2</sup>	Report results	Circular, convex, entire 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 (~ 1450 base pairs) Riboprinter® Microbial Characterization System	Consistent with <i>S. enterica</i> Consistent with <i>S. enterica</i>	Consistent with S. enterica subsp. enterica Consistent with S. enterica subsp. enterica serovar Typhimurium
Serogroup Analysis	Report results	Serogroup B <sup>4</sup>
Presence of Kanamycin Resistance Marker <sup>5</sup>	Confirmed	Confirmed
Viability (post-freeze) <sup>2</sup>	Growth	Growth

NR-12158 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 24 hours in an aerobic atmosphere. Broth inoculum was added to kolles which was grown 24 hours at 37°C and aerobic atmosphere to produce this lot.



Signature: ( **Date:** 17 OCT 2013

> 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

<sup>&</sup>lt;sup>5</sup>24 hours at 37°C and aerobic atmosphere on Luria-Bertani agar with 60 mg/mL kanamycin