

## Certificate of Analysis for HM-764

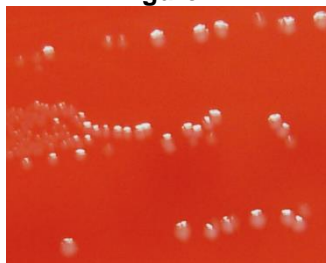
***Clostridium* sp., Strain MSTE9****Catalog No. HM-764****Product Description:** *Clostridium* sp., strain MSTE9 is an oral isolate.**Lot<sup>1,2</sup>: 61500402****Manufacturing Date: 28JAN2013**

TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology Colony morphology <sup>3</sup>	Report results Report results	Gram-positive rod Circular, convex, entire, smooth and gray (Figure 1)
<b>Genotypic Analysis</b> Sequencing of 16S ribosomal RNA gene (~ 880 base pairs)	≥ 99% identical to GenBank: AKFU01000025 ( <i>Clostridium</i> sp., strain MSTE9)	≥ 99% identical to GenBank: AKFU01000025 ( <i>Clostridium</i> sp., strain MSTE9)
<b>Viability (post-freeze)<sup>3</sup></b>	Growth	Growth

<sup>1</sup>Quality control of HMP material is only performed to demonstrate that the material distributed by BEI Resources is identical to the deposited material. It should not be considered a complete characterization of the deposited organism.

<sup>2</sup>*Clostridium* sp., strain MSTE9 was deposited by Maria V. Sizova, Department of Biology, Northeastern University, Boston, Massachusetts. The deposited material was inoculated into Modified Reinforced Clostridial broth and incubated for 72 hours at 37°C in an anaerobic atmosphere (80% N<sub>2</sub>:10% CO<sub>2</sub>:10% H<sub>2</sub>). The material from the initial growth was passaged once in Modified Reinforced Clostridial broth for 72 hours at 37°C in an anaerobic atmosphere to produce this lot.

<sup>3</sup>72 hours at 37°C and anaerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood

**Figure 1****Date:** 29 JUL 2013**Signature:****Title:**

Technical Manager, BEI Authentication or designee

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