

## New England Biolabs Product Specification

*Product Name:*  $m^7G(5')ppp(5')A$  RNA Cap Structure Analog  
*Catalog #:* S1405S/L  
*Concentration:* 1  $\mu$ mol  
*Shelf Life:* 36 months  
*Storage Temp:* -20°C  
*Storage Conditions:* Supplied as a lyophilized Sodium salt  
*Specification Version:* PS-S1405S/L v1.0  
*Effective Date:* 12 Jul 2018

### Assay Name/Specification (minimum release criteria)

**Functional Testing (Incorporation using RNA Polymerase)** - A 20  $\mu$ l reaction in RNA Polymerase Reaction Buffer in the presence of 4 mM NTPs +/-  $m^7G(5')ppp(5')A$  RNA Cap Structure Analog containing 2  $\mu$ g of template DNA and 50 units of T7 RNA Polymerase incubated for 2 hours at 37°C results in the expected product as determined by polyacrylamide gel electrophoresis.

**Molecular Weight Determination (Mass Spectrometry)** - The molecular weight of  $m^7G(5')ppp(5')A$  RNA Cap Structure Analog is between 787.5 and 789.5 as determined by mass spectrometry analysis.

**Physical Purity (HPLC)** -  $m^7G(5')ppp(5')A$  RNA Cap Structure Analog is  $\geq$  95% pure as determined by HPLC analysis.



Date 12 Jul 2018

Derek Robinson  
Director of Quality Control

