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## New England Biolabs Product Specification

Product Name:	m <sup>7</sup> G(5')ppp(5')A RNA Cap Structure Analog
Catalog #:	<i>S1405S/L</i>
Concentration:	1 µmol
Shelf Life:	36 months
Storage Temp:	-20°C
Storage Conditions:	Supplied as dried sodium salt.
Specification Version:	PS-S1405S/L v2.0
Effective Date:	02 Nov 2021

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<sup>7</sup>G(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)** -  $m^{7}G(5')ppp(5')A$  RNA Cap Structure Analog is  $\geq 95\%$  pure as determined by HPLC analysis.

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit <u>www.neb.com/trademarks</u> for additional information.

Date 02 Nov 2021

Derek Robinson Director, Quality Control



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