

## New England Biolabs Product Specification

*Product Name:* 3'-O-Me-m<sup>7</sup>G(5')ppp(5')G RNA Cap Structure Analog  
*Catalog #:* S1411S/L  
*Concentration:* 1 μmol  
*Shelf Life:* 36 months  
*Storage Temp:* -20°C  
*Storage Conditions:* Supplied as dried sodium salt.  
*Specification Version:* PS-S1411S/L v2.0  
*Effective Date:* 01 Dec 2021

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

**Functional Testing (Incorporation using RNA Polymerase)** - A 20 μl reaction in RNA Polymerase Reaction Buffer in the presence of 4 mM NTPs +/- 3'-O-Me-m<sup>7</sup>G(5')ppp(5')G RNA Cap Structure Analog containing 2 μg 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 3'-O-Me-m<sup>7</sup>G(5')ppp(5')G RNA Cap Structure Analog is between 815.46 and 817.46 as determined by mass spectrometry analysis.

**Physical Purity (HPLC)** - 3'-O-Me-m<sup>7</sup>G(5')ppp(5')G RNA Cap Structure Analog is ≥ 95% pure as determined by HPLC analysis.

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