

## New England Biolabs Certificate of Analysis

Product Name: *m7G(5')ppp(5')A RNA Cap Structure Analog*  
 Catalog Number: *S1405L*  
 Lot Number: *10048242*  
 Expiration Date: *07/2022*  
 Storage Temperature: *-20°C*  
 Storage Conditions: *Supplied as a lyophilized Sodium salt*  
 Specification Version: *PS-S1405S/L v1.0*

m7G(5')ppp(5')A RNA Cap Structure Analog Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
S1405SVIAL	m <sup>7</sup> G(5')ppp(5')G RNA Cap Structure Analog	10048244	Pass

Assay Name/Specification	Lot # 10048242
<p><b>Functional Testing (Incorporation using RNA Polymerase)</b>            A 20 µl reaction in RNA Polymerase Reaction Buffer in the presence of 4 mM NTPs +/- m7G(5')ppp(5')A 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.</p>	Pass
<p><b>Molecular Weight Determination (Mass Spectrometry)</b>            The molecular weight of m7G(5')ppp(5')A RNA Cap Structure Analog is between 787.5 and 789.5 as determined by mass spectrometry analysis.</p>	Pass
<p><b>Physical Purity (HPLC)</b>            m7G(5')ppp(5')A RNA Cap Structure Analog is ≥ 95% pure as determined by HPLC analysis.</p>	Pass

This product has been tested and shown to be in compliance with all specifications.

*Nancy Considine*

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Nancy Considine  
Production Scientist  
29 Jul 2019

*Michael Tonello*

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Michael Tonello  
Packaging Quality Control Inspector  
29 Jul 2019