

New England Biolabs Certificate of Analysis

Product Name: mRNA Cap 2'-O-Methyltransferase
Catalog Number: M0366S
Concentration: 50,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to methylate 10 pmoles of 80 nt long capped RNA transcript in 1 hour at 37°C.
Lot Number: 10021699
Expiration Date: 09/2020
Storage Temperature: -20°C
Storage Conditions: 100 mM NaCl, 20 mM Tris-HCl (pH 8.0), 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 0.1 % Triton®X-100
Specification Version: PS-M0366S v1.0

mRNA Cap 2'-O-Methyltransferase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0366SVIAL	mRNA Cap 2'-O-Methyltransferase	10021698	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10018391	Pass
B2080AVIAL	10X Capping Buffer	10020221	Pass

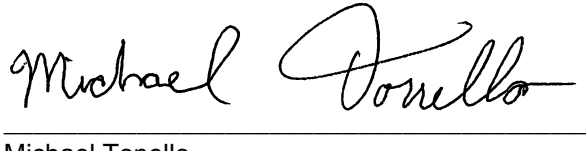
Assay Name/Specification	Lot # 10021699
RNase Activity (Extended Digestion) A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 50 units of mRNA Cap 2'-O-Methyltransferase is incubated at 37°C. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	Pass
Protein Purity Assay (SDS-PAGE) mRNA Cap 2'-O-Methyltransferase is ≥ 99% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in Capping Buffer containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 50 units of mRNA Cap 2'-O-Methyltransferase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Endonuclease Activity (Nicking) A 50 µl reaction in Capping Buffer containing 1 µg of supercoiled PhiX174 DNA and a	Pass

Assay Name/Specification	Lot # 10021699
minimum of 50 units of mRNA Cap 2'-O-Methyltransferase incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	

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



Tony Spear-Alfonso
Production Scientist
21 Aug 2018



Michael Tonello
Packaging Quality Control Inspector
24 Sep 2018