

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: 10020200
Expiration Date: 07/2020
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	10015149	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10018391	Pass
B2080AVIAL	10X Capping Buffer	10017143	Pass

Assay Name/Specification	Lot # 10020200
Endonuclease Activity (Nicking) A 50 µl reaction in Capping Buffer containing 1 µg of supercoiled PhiX174 DNA and a 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.	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
Protein Purity Assay (SDS-PAGE) mRNA Cap 2'-O-Methyltransferase is ≥ 99% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
RNase Activity (Extended Digestion) A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA	Pass

Assay Name/Specification	Lot # 10020200
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.	

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



Bhairavi Jani
Production Scientist
30 Jul 2018



Josh Hersey
Packaging Quality Control Inspector
23 Aug 2018