

New England Biolabs Certificate of Analysis

Product Name: mRNA Cap 2'-O-Methyltransferase
Catalog #: M0366S
Concentration: 50,000 units/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 #: 0041502
Assay Date: 02/2015
Expiration Date: 2/2017
Storage Temp: -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
Effective Date: 04 Mar 2014

Assay Name/Specification (minimum release criteria)	Lot #0041502
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] <i>E. coli</i> 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 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



Authorized by
Derek Robinson
04 Mar 2014



Inspected by
Bhairavi Jani
05 Mar 2015

