

New England Biolabs Certificate of Analysis

Product Name: Vaccinia Capping System
Catalog #: M2080S
Concentration: 10,000 units/ml
Unit Definition: One unit of Vaccinia Capping Enzyme is defined as the amount of enzyme required to incorporate 10 pmol of ($\alpha^{32}P$) GTP into an 80 nt transcript in 1 hour at 37°C.
Lot #: 0471612
Assay Date: 12/2016
Expiration Date: 12/2018
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-M2080S v1.0
Effective Date: 07 Sep 2016

Assay Name/Specification (minimum release criteria)	Lot #0471612
Endonuclease Activity (Nicking) - A 50 µl reaction in Capping Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 10 units of Vaccinia Capping System 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 10 units of Vaccinia Capping System incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Protein Purity Assay (SDS-PAGE) - Vaccinia Capping System is ≥ 95% 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 10 units of Vaccinia Capping System 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
07 Sep 2016



Inspected by
Bhairavi Jani
07 Dec 2016

