

New England Biolabs Certificate of Analysis

Product Name: Adenosine 5'-Triphosphate (ATP)
Catalog #: P0756S/L
Concentration: 10 mM
Unit Definition: N/A
Lot #: 0161804
Assay Date: 04/2018
Expiration Date: 04/2020
Storage Temp: -20°C
Storage Conditions: Milli-Q® Water as a sodium salt, (pH 7.0 @ 25°C)
Specification Version: PS-P0756S/L v1.0
Effective Date: 17 Nov 2017

Assay Name/Specification (minimum release criteria)	Lot #0161804
Endonuclease Activity (Nicking) - A 50 µl reaction in CutSmart® Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 1 mM of ATP incubated for 4 hours at 30°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 CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [³ H] <i>E. coli</i> DNA and a minimum of 1 mM of ATP incubated for 4 hours at 30°C releases <0.1% of the total radioactivity.	Pass
Non-Specific DNase Activity (16 Hour) - A 50 µl reaction in NEBuffer 2 containing 1 µg of T3 DNA in addition to a reaction containing Lambda-HindIII DNA and a minimum of 10 µl of ATP incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Phosphatase Activity (pNPP) - A 200 µl reaction in 1M Diethanolamine, pH 9.8, 0.5 mM MgCl ₂ containing 2.5 mM <i>p</i> -Nitrophenyl Phosphate (pNPP) and a minimum of 1 mM of ATP incubated for 4 hours at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.	Pass
Protease Activity (SDS-PAGE) - A 20 µl reaction in 1X CutSmart® Buffer containing 24 µg of a standard mixture of proteins and a minimum of 1 mM of ATP incubated for 16 hours at 37°C, results in no detectable degradation of the protein mixture as determined by SDS-PAGE with Coomassie Blue detection.	Pass



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Assay Name/Specification (minimum release criteria)	Lot #0161804
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 1 mM of ATP is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	Pass



Authorized by
Derek Robinson
17 Nov 2017



Inspected by
Bo Wu
04 May 2018

