

New England Biolabs Certificate of Analysis

Product Name: Adenosine-5 Triphosphate (ATP)
Catalog Number: P0756S
Concentration: 10 mM
Unit Definition: N/A
Lot Number: 10052285
Expiration Date: 05/2021
Storage Temperature: -20°C
Storage Conditions: Milli-Q® Water as a sodium salt, (pH 7.0 @ 25°C)
Specification Version: PS-P0756S/L v1.0

Adenosine-5 Triphosphate (ATP) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
P0756SVIAL	Adenosine 5'-Triphosphate (ATP)	10045567	Pass

Assay Name/Specification	Lot # 10052285
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] E. coli 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 p-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

Assay Name/Specification	Lot # 10052285
<p>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.</p>	Pass
<p>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.</p>	Pass

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



Alicia Bielik
Production Scientist
30 May 2019



Jay Minichiello
Packaging Quality Control Inspector
07 Oct 2019