

## New England Biolabs Certificate of Analysis

**Product Name:** Adenosine-5 Triphosphate (ATP)  
**Catalog Number:** P0756S  
**Concentration:** 10 mM  
**Unit Definition:** N/A  
**Lot Number:** 10015160  
**Expiration Date:** 04/2020  
**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)	0161804	Pass

Assay Name/Specification	Lot # 10015160
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> 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
<b>Non-Specific DNase Activity (16 Hour)</b> 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
<b>Phosphatase Activity (pNPP)</b> A 200 µl reaction in 1M Diethanolamine, pH 9.8, 0.5 mM MgCl <sub>2</sub> 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
<b>Protease Activity (SDS-PAGE)</b> 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

Assay Name/Specification	Lot # 10015160
<p><b>RNase Activity (Extended Digestion)</b> 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, &gt;90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	<b>Pass</b>
<p><b>Endonuclease Activity (Nicking)</b> 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 &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	<b>Pass</b>

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



Alicia Bielik  
Production Scientist  
12 Jul 2018



Michael Tonello  
Packaging Quality Control Inspector  
12 Jul 2018