

New England Biolabs Certificate of Analysis

Product Name: *Lambda Protein Phosphatase*
Catalog Number: *P0753S*
Concentration: *400,000 U/ml*
Unit Definition: *One unit is defined as the amount of enzyme that hydrolyzes 1 nmol of p-Nitrophenyl Phosphate in 1 minute at 30°C in a total reaction volume of 50 µl.*
Packaging Lot Number: *10211580*
Expiration Date: *09/2025*
Storage Temperature: *-80°C*
Storage Conditions: *100 mM NaCl , 50 mM HEPES , 2 mM DTT , 0.1 mM EGTA , 0.1 mM MnCl₂ , 50 % Glycerol , 0.01 % Brij 35, (pH 7.5 @ 25°C)*
Specification Version: *PS-P0753S/L v1.0*

Lambda Protein Phosphatase Component List

NEB Part Number	Component Description	Lot Number	Individual QC Result
P0753SVIAL	Lambda Protein Phosphatase	10201892	Pass
B1761SVIAL	10mM MnCl ₂	10201895	Pass
B0761SVIAL	NEBuffer for Protein MetalloPhosphatases (PMP)	10193048	Pass

Assay Name/Specification	Lot # 10211580
<p>Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart® Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 400 units of Lambda Protein Phosphatase (Lambda PP) incubated for 4 hours at 30°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 400 units of Lambda Protein Phosphatase (Lambda PP) incubated for 4 hours at 30°C releases <0.1% of the total radioactivity.</p>	Pass
<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 2,000 units of Lambda Protein Phosphatase (Lambda PP) incubated for 20 hours at 37°C, results in no detectable degradation of the protein mixture as determined by SDS-PAGE with Coomassie Blue detection.</p>	Pass

Assay Name/Specification	Lot # 10211580
<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 400 units of Lambda Protein Phosphatase (Lambda PP) 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>	<p>Pass</p>

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

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Alicia Bielik
Production Scientist
19 Sep 2023



Josh Hersey
Packaging Quality Control Inspector
06 Dec 2023