

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.*
Lot Number: *10027154*
Expiration Date: *06/2020*
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*

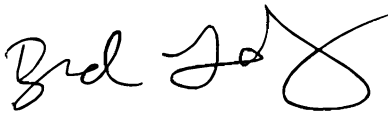
Lambda Protein Phosphatase Component List

| NEB Part Number | Component Description | Lot Number | Individual QC Result |
|-----------------|--|------------|----------------------|
| P0753SVIAL | Lambda Protein Phosphatase | 10011719 | Pass |
| B1761SVIAL | 10mM MnCl ₂ | 10018067 | Pass |
| B0761SVIAL | NEBuffer for Protein MetalloPhosphatases (PMP) | 10018066 | Pass |

| Assay Name/Specification | Lot # 10027154 |
|--|----------------|
| <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 # 10027154 |
|--|----------------|
| 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. | Pass |

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



Brad Landgraf
Production Scientist
27 Jun 2018



Michael Tonello
Packaging Quality Control Inspector
25 Oct 2018