

New England Biolabs Certificate of Analysis

Product Name: *Shrimp Alkaline Phosphatase (rSAP)*
Catalog Number: M0371S
Concentration: 1,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme that hydrolyzes 1 μ mol of p-Nitrophenyl Phosphate, PNPP in a total reaction volume of 1 ml in 1 minute at 37°C
Packaging Lot Number: 10091811
Expiration Date: 02/2022
Storage Temperature: -20°C
Storage Conditions: 25 mM Tris-HCl , 1 mM MgCl₂ , 50 % Glycerol, (pH 7.5 @ 25°C)
Specification Version: PS-M0371S/L v1.0

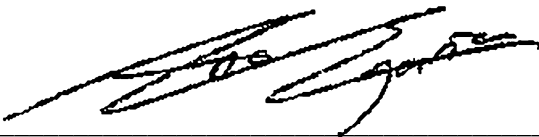
| Shrimp Alkaline Phosphatase (rSAP) Component List | | | |
|---|------------------------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| M0371SVIAL | Shrimp Alkaline Phosphatase (rSAP) | 10062894 | Pass |
| B7204SVIAL | CutSmart® Buffer | 10091032 | Pass |

| Assay Name/Specification | Lot # 10091811 |
|---|----------------|
| <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 μl of Shrimp Alkaline Phosphatase (rSAP) 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 |
| <p>Protein Purity Assay (SDS-PAGE) Shrimp Alkaline Phosphatase (rSAP) is \geq 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p> | Pass |
| <p>Non-Specific DNase Activity (16 Hour) A 50 μl reaction in NEBuffer 4 containing 1 μg of PhiX174-HaeIII DNA and a minimum of 10 units of Shrimp Alkaline Phosphatase (rSAP) incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation 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 10 units of Shrimp Alkaline</p> | Pass |

| Assay Name/Specification | Lot # 10091811 |
|---|--------------------|
| <p>Phosphatase (rSAP) incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p> <p>Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart® Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 5 units of Shrimp Alkaline Phosphatase (rSAP) incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p> | <p>Pass</p> |

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

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Production Scientist
16 Dec 2020



Michael Tonello
Packaging Quality Control Inspector
16 Dec 2020