

New England Biolabs Certificate of Analysis

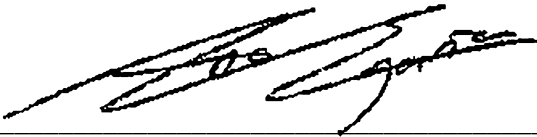
Product Name: Shrimp Alkaline Phosphatase (rSAP)
Catalog Number: M0371S
Concentration: 1,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme that hydrolyzes 1 μ mol of p-Nitrophenyl Phosphate, PNPP in a total reaction volume of 1 ml in 1 minute at 37°C
Packaging Lot Number: 10057229
Expiration Date: 07/2021
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)	10048763	Pass
B7204SVIAL	CutSmart® Buffer	10046082	Pass

Assay Name/Specification	Lot # 10057229
Protein Purity Assay (SDS-PAGE) Shrimp Alkaline Phosphatase (rSAP) is \geq 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
RNase Activity (Extended Digestion) A 10 μ l reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 μ l 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.	Pass
Non-Specific DNase Activity (16 Hour) A 50 μ l reaction in NEBuffer 4 containing 1 μ g 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.	Pass
Endonuclease Activity (Nicking) A 50 μ l reaction in CutSmart® Buffer containing 1 μ g of supercoiled PhiX174 DNA and a minimum of 5 units of Shrimp Alkaline Phosphatase (rSAP) incubated for 4 hours at	Pass

Assay Name/Specification	Lot # 10057229
<p>37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p> <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 Phosphatase (rSAP) incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p>	<p>Pass</p>

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



Ana Egana
Production Scientist
02 Jan 2020



Jay Minichiello
Packaging Quality Control Inspector
02 Jan 2020