

New England Biolabs Certificate of Analysis

Product Name: Streptavidin
Catalog Number: N7021S
Concentration: 1 mg/ml
Packaging Lot Number: 10158921
Expiration Date: 07/2024
Storage Temperature: -20°C
Storage Conditions: 140 mM NaCl, 8 mM Sodium Phosphate, 2 mM Potassium Phosphate, 10 mM KCl, (pH 7.4 @ 25°C)
Specification Version: PS-N7021S v2.0

Streptavidin Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
N7021SVIAL	Streptavidin	10156804	Pass

Assay Name/Specification	Lot # 10158921
RNase Activity (Extended Digestion) A 10 µl reaction in NEBuffer 3 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 µg of Streptavidin is incubated at 37°C. After incubation for 2 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	Pass
Protein Purity Assay (SDS-PAGE) Streptavidin is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
Specific Activity 1 mg of Streptavidin is required to bind ≥14 µg of Biotin.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 3 containing 1 µg of Lambda DNA and a minimum of 1 µg of Streptavidin incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 3 containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 1 µg of Streptavidin incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass

Assay Name/Specification	Lot # 10158921
<p>Functional Testing (Single Stranded DNA Binding - FAM Labeled Oligo) A 20 µl reaction in NEBuffer 3 containing 3 µM FAM and Biotin-labeled 50-mer and a maximum of 1 µg of Streptavidin incubated for 5 minutes at 25°C produces a mobility shift in >95% of the starting material as determined by TBE gel electrophoresis and UV imaging.</p>	Pass
<p>Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 3 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 1 µg of Streptavidin incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass

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

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Bo Wu
Production Scientist
18 Jul 2022



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Packaging Quality Control Inspector
18 Jul 2022