

New England Biolabs Certificate of Analysis

Product Name: Streptavidin
Catalog #: N7021S
Concentration: 1 mg/ml
Lot #: 0231708
Assay Date: 08/2017
Expiration Date: 08/2019
Storage Temp: -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 v1.0
Effective Date: 12 Feb 2018

Assay Name/Specification (minimum release criteria)	Lot #0231708
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.	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] <i>E. coli</i> DNA and a minimum of 1 µg of Streptavidin incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
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.	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
Protein Purity Assay (SDS-PAGE) - Streptavidin is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
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



Authorized by
Derek Robinson
12 Feb 2018



Inspected by
Bo Wu
08 Sep 2017

