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New England Biolabs Certificate of Analysis

Product Name: Cas9 Nuclease, S. pyogenes

Catalog Number: M0386S
Concentration: 1,000 nM
Packaging Lot Number: 10129857
Expiration Date: 11/2023
Storage Temperature: -20°C

Storage Conditions: 10 mM Tris-HCl, 300 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 50 %

Glycerol, (pH 7.4 @ 25°C)

Specification Version: PS-M0386S/L v1.0

Cas9 Nuclease, S. pyogenes Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
M0386SVIAL	Cas9 Nuclease, S. pyogenes	10128351	Pass	
B6003SVIAL	NEBuffer™ r3.1	10126635	Pass	

Assay Name/Specification	Lot # 10129857
Exonuclease Activity (Radioactivity Release) A 50 μl reaction in NEBuffer 3.1 containing 1 μg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 1 pmol of Cas9 Nuclease, S. pyogenes incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Functional Testing (Targeted Digestion) A 20 µl reaction in NEBuffer 3.1 containing 20 nM of 100 bp FAM and ROX-labeled double-stranded target DNA, 100 nM sgRNA, and 100 nM Cas9 Nuclease, S. pyogenes incubated for 1 hour at 37°C results in ≥90% targeted digestion of the substrate DNA as determined by capillary electrophoresis.	Pass
Endonuclease Activity (Nicking) A 50 μl reaction in NEBuffer 3.1 containing 1 μg of supercoiled PhiX174 DNA and a minimum of 1 pmol of Cas9 Nuclease, S. pyogenes incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
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 pmol of Cas9 Nuclease, S. pyogenes is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by	Pass



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Protein Purity Assay (SDS-PAGE)

Cas9 Nuclease, S. pyogenes is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.

Pass

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.

Bhairavi Jani Production Scientist

23 Nov 2021

Michael Tonello

Packaging Quality Control Inspector

23 Nov 2021



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