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## New England Biolabs Certificate of Analysis

Product Name: Nrul

Catalog Number: R0192S

Concentration: 10,000 U/ml

Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg

of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 μl.

Packaging Lot Number: 10069693
Expiration Date: 03/2022
Storage Temperature: -20°C

Storage Conditions: 50 mM KCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50%

Glycerol, 200 μg/ml BSA

Specification Version: PS-R0192S/L v1.0

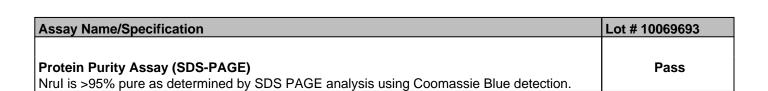
Nrul Component List				
<b>NEB Part Number</b>	Component Description	Lot Number	Individual QC Result	
R0192SVIAL	Nrul	10069691	Pass	
B7203SVIAL	NEBuffer™ 3.1	10053976	Pass	

Assay Name/Specification	Lot # 10069693
Endonuclease Activity (Nicking) A 50 μl reaction in NEBuffer 3.1 containing 1 μg of supercoiled pUC19 DNA and a minimum of 100 units of Nrul 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 3.1 containing 1 μg of a mixture of single and double-stranded [ ³H] E. coli DNA and a minimum of 50 units of Nrul incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity)  After a 10-fold over-digestion of Lambda DNA with Nrul, ~50% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with Nrul.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of Lambda DNA and a minimum of 100 units of Nrul incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass



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

Penghua Zhang

Production Scientist

29 Apr 2020

Jay Minichiello

Packaging Quality Control Inspector

29 Apr 2020

