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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: 10164196
Expiration Date: 09/2024
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	10164189	Pass	
B6003SVIAL	NEBuffer™ r3.1	10146826	Pass	

Assay Name/Specification	Lot # 10164190
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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Assay Name/Specification	Lot # 10164190
Protein Purity Assay (SDS-PAGE) Nrul 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.

YunJie Sun \
Production Scientist

23 Şep 2022

Josh Hersey

Packaging Quality Control Inspector

11 Oct 2022



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