

be INSPIRED *drive* DISCOVERY *stay* GENUINE

240 County Road Ipswich, MA 01938-2723 Tel 978-927-5054 Fax 978-921-1350 www.neb.com info@neb.com

New England Biolabs Certificate of Analysis

Product Name:	Narl
Catalog Number:	R0191L
Concentration:	5,000 U/ml
Unit Definition:	One unit is defined as the amount of enzyme required to digest 1 μ g pXba DNA in 1 hour at 37°C in a total reaction volume of 50 μ l.
Packaging Lot Number:	10159211
Expiration Date:	07/2024
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-R0191S/L v2.0

Narl Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
R0191LVIAL	Narl	10156273	Pass	
B6004SVIAL	rCutSmart™ Buffer	10153337	Pass	

Assay Name/Specification	Lot # 10159211
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart Buffer containing 1 µg of pXba DNA and a minimum of 50 units of Narl incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of pXba DNA with Narl, >95% 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 Narl.	Pass
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart Buffer containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 50 units of Narl incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart Buffer containing 1 µg of supercoiled LITMUS28i DNA and a minimum of 50 units of NarI incubated for 4 hours at 37°C results in <10% conversion to the nicked form 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.

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Penghua Zhang

Production Scientist 22 Jul 2022

Erin Varney

Packaging Quality Control Inspector 22 Jul 2022

