

New England Biolabs Certificate of Analysis

Product Name: XhoI
Catalog Number: R0146M
Concentration: 100,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA (HindIII digest) fragments in 1 hour at 37°C in a total reaction volume of 50 µl.
Packaging Lot Number: 10115904
Expiration Date: 08/2023
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-R0146M v2.0

XhoI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0146M VIAL	XhoI	10115906	Pass
B7024A VIAL	Gel Loading Dye, Purple (6X)	10108733	Pass
B6004S VIAL	rCutSmart™ Buffer	10114155	Pass

Assay Name/Specification	Lot # 10115904
Blue-White Screening (Terminal Integrity) A sample of Litmus 28i vector linearized with a 10-fold excess of XhoI, religated and transformed into an E. coli strain expressing the LacZ beta fragment gene results in <1% white colonies.	Pass
Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled pBR322 DNA and a minimum of 100 Units of XhoI 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 CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 100 units of XhoI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda HindIII DNA and a	Pass

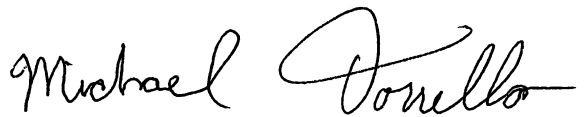
Assay Name/Specification	Lot # 10115904
minimum of 100 Units of XhoI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of pXba DNA with XhoI, >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 XhoI.	Pass
Protein Purity Assay (SDS-PAGE) XhoI 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.

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23 Aug 2021



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23 Aug 2021