

New England Biolabs Certificate of Analysis

Product Name: Nt.BsmAI
Catalog Number: R0121S
Concentration: 5,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to convert 1 µg of supercoiled pBR322 DNA to open circular form in 1 hour at 37°C in a total reaction volume of 50 µl.
Packaging Lot Number: 10182452
Expiration Date: 03/2025
Storage Temperature: -20°C
Storage Conditions: 50 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA
Specification Version: PS-R0121S/L v1.0

Nt.BsmAI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0121SVIAL	Nt.BsmAI	10182450	Pass
B6004SVIAL	rCutSmart™ Buffer	10176423	Pass

Assay Name/Specification	Lot # 10182452
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 Nt.BsmAI 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 pBR322 DNA and a minimum of 50 units of Nt.BsmAI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Protein Purity Assay (SDS-PAGE) Nt.BsmAI 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.


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Production Scientist
16 Mar 2023


Michael Tonello
Packaging Quality Control Inspector
21 Mar 2023