

New England Biolabs Certificate of Analysis

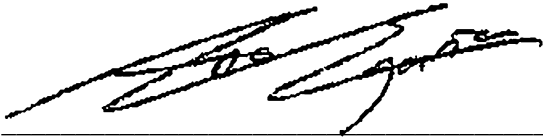
Product Name: *Nb.BsrDI*
Catalog Number: *R0648L*
Concentration: *10,000 U/ml*
Unit Definition: *One unit is defined as the amount of enzyme required to convert 1 µg of supercoiled pUC19 DNA to open circular form in rCutSmart Buffer in 1 hour at 37°C in a total reaction volume of 50 µl.*
Packaging Lot Number: *10251918*
Expiration Date: *08/2026*
Storage Temperature: *-20°C*
Storage Conditions: *10 mM Tris-HCl, 200 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml rAlbumin (pH 7.4 @ 25°C)*
Specification Version: *PS-R0648S/L v2.0*

Nb.BsrDI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0648LVIAL	Nb.BsrDI	10252257	Pass
B6004SVIAL	rCutSmart™ Buffer	10245415	Pass

Assay Name/Specification	Lot # 10251918
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in rCutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 100 units of Nb.BsrDI 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 rCutSmart™ Buffer containing 1 µg of pUC19 DNA and a minimum of 30 units of Nb.BsrDI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
qPCR DNA Contamination (E. coli Genomic) A minimum of 10 units of Nb.BsrDI is screened for the presence of E. coli genomic DNA using SYBR® Green qPCR with primers specific for the E. coli 16S rRNA locus. Results are quantified using a standard curve generated from purified E. coli genomic DNA. The measured level of E. coli genomic DNA contamination is ≤ 1 E. coli genome.	Pass

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

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Yanxia Bei
Production Scientist
23 Aug 2024



Michael Tonello
Packaging Quality Control Inspector
23 Aug 2024