

New England Biolabs Certificate of Analysis

Product Name: BsaBI
Catalog Number: R0537S
Concentration: 10,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA (dam-) in 1 hour at 60°C in a total reaction volume of 50 µl.
Lot Number: 10050643
Expiration Date: 04/2021
Storage Temperature: -20°C
Storage Conditions: 300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 µg/ml BSA
Specification Version: PS-R0537S/L v1.0

BsaBI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0537SVIAL	BsaBI	10043450	Pass
B7204SVIAL	CutSmart® Buffer	10047860	Pass

Assay Name/Specification	Lot # 10050643
<p>Protein Purity Assay (SDS-PAGE) BsaBI is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	Pass
<p>Non-Specific DNase Activity (16 hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda dam- DNA and a minimum of 10 units of BsaBI incubated for 16 hours at 60°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. NOTE: although no nuclease degradation is detected under these conditions, extended incubations and/or high concentrations of this enzyme may result in star activity. See the product FAQ for recommended reaction conditions for this enzyme.</p>	Pass
<p>Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda dam- DNA with BsaBI, >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 BsaBI.</p>	Pass

Assay Name/Specification	Lot # 10050643
<p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 100 units of BsaBI incubated for 4 hours at 60°C releases <0.1% of the total radioactivity.</p>	<p>Pass</p>

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



Jianying Luo
Production Scientist
25 Apr 2019



Jay Minichiello
Packaging Quality Control Inspector
08 Aug 2019