

New England Biolabs Certificate of Analysis

Product Name: Bsal
Catalog Number: R0535L
Concentration: 10,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of pXba DNA in 1 hour at 37°C in a total reaction volume of 50 µl.
Lot Number: 10030542
Expiration Date: 11/2020
Storage Temperature: -20°C
Storage Conditions: 200 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-R0535S/L v2.0

Bsal Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0535LVIAL	Bsal	10030543	Pass
B7204SVIAL	CutSmart® Buffer	10021122	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10021129	Pass

Assay Name/Specification	Lot # 10030542
Protein Purity Assay (SDS-PAGE) Bsal is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	Pass
Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 10 units of Bsal incubated for 4 hours at 37°C results in <20% 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 Bsal incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of pXba DNA with Bsal, >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 Bsal.	Pass

Assay Name/Specification	Lot # 10030542
<p>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 BsaI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p>	<p>Pass</p>

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



Tony Spear-Alfonso
Production Scientist
08 Nov 2018



Michael Tonello
Packaging Quality Control Inspector
04 Dec 2018