

New England Biolabs Certificate of Analysis

Product Name: BsrGI
Catalog Number: R0575L
Concentration: 10,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 µl.
Lot Number: 10008868
Expiration Date: 05/2020
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-R0575S/L v1.0

BsrGI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0575LVIAL	BsrGI	10008882	Pass
B7202SVIAL	NEBuffer™ 2.1	0251706	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	0231804	Pass

Assay Name/Specification	Lot # 10008868
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 2.1 containing 1 µg of Lambda DNA and a minimum of 100 Units of BsrGI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 2.1 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 50 Units of BsrGI 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 NEBuffer 2.1 containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 100 units of BsrGI 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 Lambda DNA with BsrGI, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments,	Pass

Assay Name/Specification	Lot # 10008868
>95% can be recut with BsrGI.	

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



Stephanie Cornelio
Production Scientist
22 May 2018



Michael Tonello
Packaging Quality Control Inspector
24 May 2018