

New England Biolabs Certificate of Analysis

Product Name: BstYI
Catalog Number: R0523L
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 60°C in a total reaction volume of 50 µl.
Packaging Lot Number: 10072885
Expiration Date: 04/2022
Storage Temperature: -20°C
Storage Conditions: 50 mM KCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA
Specification Version: PS-R0523S/L v1.0

BstYI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0523LVIAL	BstYI	10072886	Pass
B7202SVIAL	NEBuffer™ 2.1	10070034	Pass

Assay Name/Specification	Lot # 10072885
Protein Purity Assay (SDS-PAGE) BstYI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 2.1 containing 1 µg of Lambda DNA and a minimum of 30 Units of BstYI incubated for 16 hours at 60°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Ligation and Recutting (Terminal Integrity) After a 20-fold over-digestion of Lambda DNA with BstYI, >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 BstYI.	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 50 units of BstYI incubated for 4 hours at 60°C releases <0.1% of the total radioactivity.	Pass

Assay Name/Specification	Lot # 10072885
Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 2.1 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 10 Units of BstYI incubated for 4 hours at 60°C results in <50% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass

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


Penghua Zhang
Production Scientist
22 Jun 2020


Josh Hersey
Packaging Quality Control Inspector
22 Jun 2020