

## New England Biolabs Certificate of Analysis

**Product Name:** BseYI  
**Catalog Number:** R0635S  
**Concentration:** 5,000 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.  
**Packaging Lot Number:** 10061200  
**Expiration Date:** 12/2021  
**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-R0635S/L v1.0

BseYI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0635SVIAL	BseYI	10061198	Pass
B7203SVIAL	NEBuffer™ 3.1	10053973	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10055732	Pass

Assay Name/Specification	Lot # 10061200
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in NEBuffer 3.1 containing 1 µg of Lambda DNA and a minimum of 15 Units of BseYI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in NEBuffer 3.1 containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 25 units of BseYI incubated for 4 hours at 37°C releases <0.2% of the total radioactivity.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> After a 5-fold over-digestion of Lambda DNA with BseYI, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, ~75% can be recut with BseYI.	Pass

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



Anthony Francis  
Production Scientist  
04 Dec 2019



Jay Minichiello  
Packaging Quality Control Inspector  
02 Jan 2020