

## New England Biolabs Certificate of Analysis

**Product Name:** *Nb.BssSI*  
**Catalog Number:** *R0681S*  
**Concentration:** *20,000 U/ml*  
**Unit Definition:** *One unit is defined as the amount of enzyme required to digest 1 µg of pUC19 DNA in NEBuffer 3.1 incubated for 1 hour at 37°C in a total reaction volume of 50 µl.*  
**Packaging Lot Number:** *10155332*  
**Expiration Date:** *06/2024*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *300 mM NaCl, 10 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 500 µg/ml BSA, (pH 7.4 @ 25°C)*  
**Specification Version:** *PS-R0681S v2.0*

Nb.BssSI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0681SVIAL	Nb.BssSI	10155331	Pass
B6003SVIAL	NEBuffer™ r3.1	10146824	Pass

Assay Name/Specification	Lot # 10155332
<b>Protein Purity Assay (SDS-PAGE)</b> Nb.BssSI is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	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 200 units of Nb.BssSI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Non-Specific DNase Activity (16 hour)</b> A 50 µl reaction in NEBuffer 3.1 containing 1 µg of pUC19 DNA and a minimum of 20 units of Nb.BssSI incubated for 16 hours at 37°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.	Pass
<b>Measured Activity (Restriction Endonuclease)</b>	Pass

Assay Name/Specification	Lot # 10155332
The measured activity of Nb.BssSI is complete at 20,000 units/ml and incomplete at 40,000 units/ml.	

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit [www.neb.com/trademarks](http://www.neb.com/trademarks) for additional information.



\_\_\_\_\_  
Penghua Zhang  
Production Scientist  
23 Jun 2022



\_\_\_\_\_  
Erin Varney  
Packaging Quality Control Inspector  
23 Jun 2022