NEW ENGLAND BioLabs Inc.
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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:	*10126505*
Expiration Date:	*11/2023*
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	10126504	**Pass**
B6003SVIAL	NEBuffer™ r3.1	10116057	**Pass**

Assay Name/Specification	**Lot # 10126505**
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of a mixture of single and double-stranded [^{3}H] E. coli DNA and a minimum of 200 units of Nb.BssSI incubated for 4 hours at 37ºC releases <0.1% of the total radioactivity.	**Pass**
Non-Specific DNase Activity (16 hour) 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 37ºC 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**
Measured Activity (Restriction Endonuclease) The measured activity of Nb.BssSI is complete at 20,000 units/ml and incomplete at 40,000 units/ml.	**Pass**
Protein Purity Assay (SDS-PAGE)	**Pass**

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Assay Name/Specification	Lot # 10126505
Nb.BssSI is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	

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 for additional information.

Penghua Zhang
Production Scientist
10 Nov 2021

Michael Tonello
Packaging Quality Control Inspector
10 Nov 2021