

## New England Biolabs Certificate of Analysis

**Product Name:** Nt.BstNBI  
**Catalog Number:** R0607S  
**Concentration:** 10,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to digest 1 µg T7 DNA in 1 hour at 55°C in a total reaction volume of 50 µl.  
**Lot Number:** 10031985  
**Expiration Date:** 12/2020  
**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-R0607S/L v1.0

Nt.BstNBI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0607SVIAL	Nt.BstNBI	10031986	Pass
B7203SVIAL	NEBuffer™ 3.1	10033149	Pass


Assay Name/Specification	Lot # 10031985
<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 50 units of Nt.BstNBI incubated for 4 hours at 55°C releases <0.1% of the total radioactivity.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> After a 10-fold over-digestion of T7 DNA with Nt.BstNBI, >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 Nt.BstNBI.	Pass
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in NEBuffer 3.1 containing 1 µg of T7 DNA and a minimum of 10 Units of Nt.BstNBI incubated for 16 hours at 55°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
<b>Protein Purity Assay (SDS-PAGE)</b> Nt.BstNBI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	Pass

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





Anthony Francis  
Production Scientist  
26 Dec 2018



Michael Tonello  
Packaging Quality Control Inspector  
27 Mar 2019