Product Name: Nt.BstNBI
Catalog Number: R0607L
Concentration: 10,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg T7 DNA in NEBuffer r3.1 in 1 hour at 55°C in a total reaction volume of 50 µl.
Packaging Lot Number: 10168830
Expiration Date: 11/2024
Storage Temperature: -20°C
Storage Conditions: 10 mM Tris-HCl, 50 mM KCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml rAlbumin (pH 7.4 @ 25°C)
Specification Version: PS-R0607S/L v2.0

<table>
<thead>
<tr>
<th>NEB Part Number</th>
<th>Component Description</th>
<th>Lot Number</th>
<th>Individual QC Result</th>
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</thead>
<tbody>
<tr>
<td>R0607LVIAL</td>
<td>Nt.BstNBI</td>
<td>10168828</td>
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<tr>
<td>B6003SVIAL</td>
<td>NEBuffer™ r3.1</td>
<td>10146827</td>
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</tr>
</tbody>
</table>

**Assay Name/Specification**

Protein Purity Assay (SDS-PAGE)
Nt.BstNBI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.

Ligation and Recutting (Terminal Integrity)
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.

qPCR DNA Contamination (E. coli Genomic)
A minimum of 10 units of Nt.BstNBI is screened for the presence of E. coli genomic DNA using SYBR® Green qPCR with primers specific for the E. coli 16S rRNA locus. Results are quantified using a standard curve generated from purified E. coli genomic DNA. The measured level of E. coli genomic DNA contamination is ≤ 1 E. coli genome.

Non-Specific DNase Activity (16 hour)
A 50 µl reaction in NEBuffer™ r3.1 containing 1 µg of T7 DNA and a minimum of 10
### Assay Name/Specification

<table>
<thead>
<tr>
<th>Lot # 10168830</th>
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<tbody>
<tr>
<td>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. 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.</td>
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</tbody>
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<tr>
<th>Exonuclease Activity (Radioactivity Release)</th>
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<tbody>
<tr>
<td>A 50 µl reaction in NEBuffer™ r3.1 containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 50 units of Nt.BstNBI incubated for 4 hours at 55°C releases &lt;0.1% of the total radioactivity.</td>
</tr>
</tbody>
</table>

Pass

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.

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Penghua Zhang  
Production Scientist  
08 Nov 2022

Michael Tonello  
Packaging Quality Control Inspector  
09 Nov 2022