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New England Biolabs
Certificate of Analysis

Product Name:	*Nt.BstNBI*
Catalog #:	*R0607S/L*
Concentration:	*500,000 units/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 #:	*0341411*
Assay Date:	*11/2014*
Expiration Date:	*11/2016*
Storage Temp:	*-20 °C*
Storage Conditions:	*50 mM KCl , 10 mM Tris-HCl (7.4), 1 mM DTT , 0.1 mM EDTA , 50 % Glycerol*
Specification Version:	*PS-R0607S/L v1.0*
Effective Date:	*18 Jul 2014*

Assay Name/Specification (minimum release criteria)	**Lot #0341411**
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 50 units of Nt.BstNBI incubated for 4 hours at 55°C releases <0.1% of the total radioactivity.	**Pass**
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.	**Pass**
Non-Specific DNase Activity (16 Hour) - 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**
Protein Purity Assay (SDS-PAGE) - Nt.BstNBI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	**Pass**

* *The BSA in this product has been granted an EDQM "Certificate of Suitability" from the European Directorate for the Quality of Medicines (# R1-CEP-2003-204-Rev00) and has been granted a USDA Certificate for Export of Bovine Blood Plasma/Serum for Manufacture into Pharmaceutical Products.*

Authorized by
Derek Robinson
18 Jul 2014

Inspected by
Emma Jean Hess
10 Nov 2014

nqa ISO 9001 Registered Quality Management
nqa ISO 14001 Registered Environmental Management
nqa ISO 13485 Registered Medical Devices