NEW ENGLAND BioLabs Inc.
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New England Biolabs
Certificate of Analysis

Product Name:	*Tth111I*
Catalog Number:	*R0185S*
Concentration:	*5,000 U/ml*
Unit Definition:	*One unit is defined as the amount of enzyme required to digest 1 µg of pBC4 DNA in 1 hour at 65°C in a total reaction volume of 50 µl.*
Packaging Lot Number:	*10203110*
Expiration Date:	*08/2025*
Storage Temperature:	*-20°C*
Storage Conditions:	*500 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA*
Specification Version:	*PS-R0185S/L v1.0*

Tth111I Component List

NEB Part Number	Component Description	Lot Number	Individual QC Result
R0185SVIAL	Tth111I	10201250	**Pass**
B6004SVIAL	rCutSmart™ Buffer	10198641	**Pass**

Assay Name/Specification	Lot # 10203110
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [^{3}H] E. coli DNA and a minimum of 50 units of Tth111I incubated for 4 hours at 65ºC releases <0.1% of the total radioactivity.	**Pass**
Ligation and Recutting (Terminal Integrity) After a 5-fold over-digestion of pBC4 DNA with Tth111I, ~25% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16ºC. Of these ligated fragments, >95% can be recut with Tth111I.	**Pass**
Non-Specific DNase Activity (16 hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pBC4 DNA and a minimum of 5 units of Tth111I incubated for 16 hours at 65ºC 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**
Protein Purity Assay (SDS-PAGE)	**Pass**

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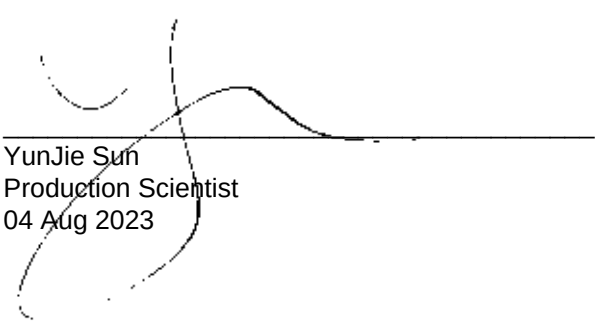
Assay Name/Specification	Lot # 10203110
Tth111I is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	

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.



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04 Aug 2023

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11 Aug 2023