

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: 10128651
Expiration Date: 11/2023
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	10128650	Pass
B6004SVIAL	rCutSmart™ Buffer	10124441	Pass

Assay Name/Specification	Lot # 10128651
Protein Purity Assay (SDS-PAGE) Tth111I is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	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 16°C. 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 65°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.	Pass
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and	Pass

Assay Name/Specification	Lot # 10128651
double-stranded [³ H] E. coli DNA and a minimum of 50 units of Tth111I incubated for 4 hours at 65°C releases <0.1% of the total radioactivity.	

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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22 Nov 2021



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Packaging Quality Control Inspector
22 Nov 2021