

New England Biolabs Certificate of Analysis

Product Name: Tth1111
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: 10064283
Expiration Date: 01/2022
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

Tth1111 Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0185SVIAL	Tth1111	10064282	Pass
B7204SVIAL	CutSmart® Buffer	10061302	Pass

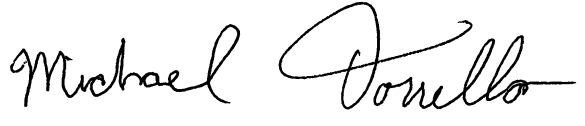
Assay Name/Specification	Lot # 10064283
Protein Purity Assay (SDS-PAGE) Tth1111 is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	Pass
Ligation and Recutting (Terminal Integrity) After a 5-fold over-digestion of pBC4 DNA with Tth1111, ~25% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with Tth1111.	Pass
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 Tth1111 incubated for 4 hours at 65°C releases <0.1% of the total radioactivity.	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 Tth1111 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	Pass

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incubations and/or high concentrations of this enzyme may result in star activity. See the product FAQ for recommended reaction conditions for this enzyme.	

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



Anthony Francis
Production Scientist
24 Jan 2020



Michael Tonello
Packaging Quality Control Inspector
06 Feb 2020