

## 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:** 10178061  
**Expiration Date:** 01/2025  
**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

Tth1111 Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0185SVIAL	Tth1111	10178060	Pass
B6004SVIAL	rCutSmart™ Buffer	10173664	Pass

Assay Name/Specification	Lot # 10178061
<b>Protein Purity Assay (SDS-PAGE)</b> Tth1111 is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	Pass
<b>Non-Specific DNase Activity (16 hour)</b> 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 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
<b>Ligation and Recutting (Terminal Integrity)</b> 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
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and	Pass

Assay Name/Specification	Lot # 10178061
double-stranded [ <sup>3</sup> 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](http://www.neb.com/trademarks) for additional information.



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YunJie Sun  
Production Scientist  
24 Jan 2023



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Michael Tonello  
Packaging Quality Control Inspector  
25 Jan 2023