

## New England Biolabs Certificate of Analysis

**Product Name:** *PluTI*  
**Catalog Number:** *R0713S*  
**Concentration:** *10,000 U/ml*  
**Unit Definition:** *One unit is defined as the amount of enzyme required to digest 1 µg of pXba DNA in 1 hour at 37°C in a total reaction volume of 50 µl.*  
**Lot Number:** *10052792*  
**Expiration Date:** *08/2021*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *50 mM KCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA*  
**Specification Version:** *PS-R0713S/L v1.0*

PluTI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0713SVIAL	PluTI	10052791	Pass
B7204SVIAL	CutSmart® Buffer	10053981	Pass

Assay Name/Specification	Lot # 10052792
<p><b>Endonuclease Activity (Nicking)</b>            A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled LITMUS28 DNA and a minimum of 50 Units of PluTI incubated for 4 hours at 37°C results in &lt;20% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p><b>Exonuclease Activity (Radioactivity Release)</b>            A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [<sup>3</sup>H] E. coli DNA and a minimum of 100 units of PluTI incubated for 4 hours at 37°C releases &lt;0.1% of the total radioactivity.</p>	Pass
<p><b>Ligation and Recutting (Terminal Integrity)</b>            After a 10-fold over-digestion of pXba DNA with PluTI, &gt;95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, &gt;95% can be recut with PluTI.</p>	Pass
<p><b>Non-Specific DNase Activity (16 Hour)</b>            A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pXba DNA and a minimum of 50 Units of PluTI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p>	Pass

Assay Name/Specification	Lot # 10052792
<b>Protein Purity Assay (SDS-PAGE)</b> PluT1 is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	<b>Pass</b>

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



Stephanie Cornelio  
Production Scientist  
27 Aug 2019



Jay Minichiello  
Packaging Quality Control Inspector  
25 Sep 2019