

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.*
Packaging Lot Number: *10129500*
Expiration Date: *11/2023*
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	10129499	Pass
B6004SVIAL	rCutSmart™ Buffer	10128416	Pass

Assay Name/Specification	Lot # 10129500
<p>Non-Specific DNase Activity (16 Hour) 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
<p>Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of pXba DNA with PluTI, >95% 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 PluTI.</p>	Pass
<p>Endonuclease Activity (Nicking) 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 <20% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 100 units of PluTI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p>	Pass

Assay Name/Specification	Lot # 10129500
<p>Protein Purity Assay (SDS-PAGE) PluTI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.</p>	<p>Pass</p>

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

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Penghua Zhang
Production Scientist
21 Jan 2022



Josh Hersey
Packaging Quality Control Inspector
21 Jan 2022