

New England Biolabs Certificate of Analysis

Product Name: *PleI*
Catalog Number: *R0515S*
Concentration: *5,000 U/ml*
Unit Definition: *One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 µl.*
Packaging Lot Number: *10138434*
Expiration Date: *02/2024*
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-R0515S/L v1.0*

PleI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0515SVIAL	PleI	10138433	Pass
B6004SVIAL	rCutSmart™ Buffer	10132778	Pass

Assay Name/Specification	Lot # 10138434
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 5 units of PleI incubated for 4 hours at 37°C releases <0.3% of the total radioactivity.	Pass
Protein Purity Assay (SDS-PAGE) PleI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	Pass
Ligation and Recutting (Terminal Integrity) After a 2-fold over-digestion of Lambda DNA with PleI, ~50% 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 PleI.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 5 Units of PleI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass

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

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Production Scientist
16 Feb 2022



Josh Hersey
Packaging Quality Control Inspector
16 Feb 2022