

New England Biolabs Certificate of Analysis

Product Name: *SmlI*
Catalog Number: *R0597S*
Concentration: *10,000 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 55°C in a total reaction volume of 50 µl.*
Packaging Lot Number: *10179998*
Expiration Date: *02/2025*
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, 400 µg/ml BSA*
Specification Version: *PS-R0597S/L v1.0*

SmlI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0597SVIAL	SmlI	10179997	Pass
B6004SVIAL	rCutSmart™ Buffer	10173663	Pass

Assay Name/Specification	Lot # 10179998
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with SmlI, ~75% 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 SmlI.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 30 units of SmlI incubated for 16 hours at 55°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	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 SmlI incubated for 4 hours at 55°C releases <0.1% of the total radioactivity.	Pass

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

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YunJie Sun
Production Scientist
22 Feb 2023


Michael Tonello
Packaging Quality Control Inspector
22 Feb 2023