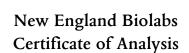


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Product Name: SacI

Catalog #: R0156S/L
Concentration: 20,000 units/ml

NEW ENGLAND
BioLabs Inc.

Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA (HindIII digest) in 1 hour at 37°C in a

total reaction volume of 50 µl.

 Lot #:
 0501409

 Assay Date:
 09/2014

 Expiration Date:
 9/2016

 Storage Temp:
 -20 °C

Storage Conditions: 100 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-R0156S/L v1.0

Effective Date: 26 Jul 2013

Assay Name/Specification (minimum release criteria)	Lot #0501409
Blue-White Screening (Terminal Integrity) - A sample of LITMUS28i vector linearized with a 10-fold excess of SacI, religated and transformed into an <i>E. coli</i> strain expressing the LacZ beta fragment gene results in <1% white colonies.	Pass
Endonuclease Activity (Nicking) - A 50 μ l reaction in NEBuffer 1.1 containing 1 μ g of supercoiled PhiX174 DNA and a minimum of 20 units of SacI incubated for 4 hours at 37°C results in <20% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
Exonuclease Activity (Radioactivity Release) - A 50 μ l reaction in NEBuffer 1.1 containing 1 μ g of a mixture of single and double-stranded [3 H] <i>E. coli</i> DNA and a minimum of 100 units of SacI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) - After a 20-fold over-digestion of pXba DNA with SacI, >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 SacI.	Pass
Non-Specific DNase Activity (16 Hour) - A 50 µl reaction in NEBuffer 1.1 containing 1 µg of Lambda-HindIII DNA and a minimum of 60 units of SacI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Protein Purity Assay (SDS-PAGE) - SacI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	Pass









New England Biolabs Certificate of Analysis

* The BSA in this product has been granted an EDQM "Certificate of Suitability" from the European Directorate for the Quality of Medicines (#R1-CEP-2003-204-Rev00) and has been granted a USDA Certificate for Export of Bovine Blood Plasma/Serum for Manufacture into Pharmaceutical Products.

Authorized by Derek Robinson 26 Jul 2013







Inspected by Anthony Francis 10 Oct 2014