

New England Biolabs Certificate of Analysis

Product Name: *SacI-HF®*
Catalog Number: *R3156S*
Concentration: *20,000 U/ml*
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.*
Packaging Lot Number: *10154082*
Expiration Date: *06/2024*
Storage Temperature: *-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-R3156S/L v2.0*

SacI-HF® Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R3156SVIAL	SacI-HF®	10154081	Pass
B7024AVIAL	Gel Loading Dye, Purple (6X)	10152092	Pass
B6004SVIAL	rCutSmart™ Buffer	10150374	Pass

Assay Name/Specification	Lot # 10154082
<p>Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 60 Units of SacI-HF™ incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p>Blue-White Screening (Terminal Integrity) A sample of LITMUS28i vector linearized with a 10-fold excess of SacI-HF™, religated and transformed into an E. coli strain expressing the LacZ beta fragment gene results in <1% white colonies.</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 SacI-HF™ incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p>	Pass
<p>Protein Purity Assay (SDS-PAGE) SacI-HF™ is >95% pure as determined by SDS PAGE analysis using Coomassie Blue</p>	Pass

