

New England Biolabs Certificate of Analysis

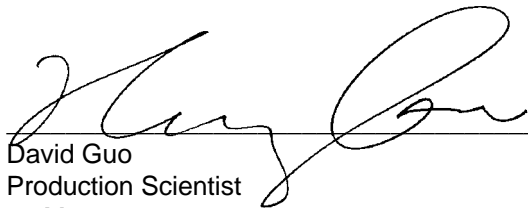
Product Name: *SacII*
Catalog Number: *R0157L*
Concentration: *20,000 U/ml*
Unit Definition: *One unit is defined as the amount of enzyme required to digest 1 µg of pXba DNA in 1 hour at 37°C in a total reaction volume of 50 µl.*
Lot Number: *10046224*
Expiration Date: *06/2021*
Storage Temperature: *-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-R0157S/L v1.0*

SacII Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0157LVIAL	SacII	10046225	Pass
B7204SVIAL	CutSmart® Buffer	10043912	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10043348	Pass

Assay Name/Specification	Lot # 10046224
<p>Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled pBR322 DNA and a minimum of 60 Units of SacII 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 SacII incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p>	Pass
<p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pXba DNA and a minimum of 60 Units of SacII 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 20-fold over-digestion of pXba DNA with SacII, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95%</p>	Pass

Assay Name/Specification	Lot # 10046224
can be recut with SacII.	

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



David Guo
Production Scientist
09 May 2019



Michael Tonello
Packaging Quality Control Inspector
11 Jun 2019