

New England Biolabs Certificate of Analysis


Product Name: SgrAI
Catalog Number: R0603S
Concentration: 10,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of LambdaDNA in 1 hour at 37°C in a total reaction volume of 50 µl.
Packaging Lot Number: 10062622
Expiration Date: 08/2021
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-R0603S/L v1.0

SgrAI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0603SVIAL	SgrAI	10052692	Pass
B7204SVIAL	CutSmart® Buffer	10061300	Pass

Assay Name/Specification	Lot # 10062622
<p>Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 30 Units of SgrAI incubated for 4 hours at 37°C results in <10% 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 50 units of SgrAI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p>	Pass
<p>Ligation and Recutting (Terminal Integrity) After a 2-fold over-digestion of Lambda DNA with SgrAI, >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 SgrAI.</p>	Pass
<p>Non-Specific DNase Activity (16 hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 10 Units of SgrAI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. NOTE:</p>	Pass

Assay Name/Specification	Lot # 10062622
although no nuclease degradation is detected under these conditions, extended incubations and/or high concentrations of this enzyme may result in star activity. See the product FAQ for recommended reaction conditions for this enzyme.	

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



Anthony Francis
Production Scientist
22 Aug 2019



Jay Minichiello
Packaging Quality Control Inspector
14 Jan 2020