

New England Biolabs Certificate of Analysis

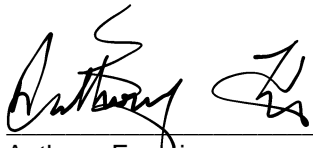
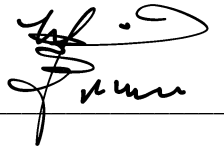
Product Name: Clal
Catalog Number: R0197S
Concentration: 10,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA (dam-) in 1 hour at 37°C in a total reaction volume of 50 µl.
Lot Number: 10052619
Expiration Date: 04/2021
Storage Temperature: -20°C
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-R0197S/L v1.0

Clal Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0197SVIAL	Clal	10041801	Pass
B7204SVIAL	CutSmart® Buffer	10046082	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10043911	Pass

Assay Name/Specification	Lot # 10052619
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 100 units of Clal incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 30 Units of Clal incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
Protein Purity Assay (SDS-PAGE) Clal is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda dam- DNA and a minimum of 100 Units of Clal incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel	Pass

Assay Name/Specification	Lot # 10052619
<p>electrophoresis.</p> <p>Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda dam- DNA with ClaI, >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 ClaI.</p>	<p>Pass</p>

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

Anthony Francis
Production Scientist
12 Apr 2019



Jay Minichiello
Packaging Quality Control Inspector
04 Sep 2019