

New England Biolabs Certificate of Analysis

Product Name: *Sau3AI*
Catalog Number: *R0169L*
Concentration: *5,000 U/ml*
Unit Definition: *One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 µl.*
Lot Number: *10012458*
Expiration Date: *06/2020*
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-R0169S/L v1.0*

| Sau3AI Component List | | | |
|-----------------------|-----------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| R0169LVIAL | Sau3AI | 10012459 | Pass |
| B7201SVIAL | NEBuffer™ 1.1 | 0121709 | Pass |
| B7004SVIAL | NEBuffer™ 4 | 0181710 | Pass |

| Assay Name/Specification | Lot # 10012458 |
|--|----------------|
| Ligation and Recutting (Terminal Integrity) After a 20-fold over-digestion of Lambda DNA with Sau3AI, ~75% 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 Sau3AI. | Pass |
| Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 1.1 containing 1 µg of Lambda DNA and a minimum of 25 Units of Sau3AI 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) Sau3AI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection. | Pass |
| Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 1.1 containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 15 units of Sau3AI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity. | Pass |

| Assay Name/Specification | Lot # 10012458 |
|---|--------------------|
| <p>Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 1.1 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 5 Units of Sau3AI incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p> | <p>Pass</p> |

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




Anthony Francis
Production Scientist
03 Jul 2018



Michael Tonello
Packaging Quality Control Inspector
13 Jul 2018