

New England Biolabs Certificate of Analysis

Product Name: Apol
Catalog Number: R0566L
Concentration: 10,000 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 50°C in a total reaction volume of 50 µl.
Lot Number: 10033496
Expiration Date: 01/2021
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-R0566S/L v1.0

Apol Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0566LVIAL	Apol	10033497	Pass
B7203SVIAL	NEBuffer™ 3.1	10021112	Pass

Assay Name/Specification	Lot # 10033496
Blue-White Screening (Terminal Integrity) A sample of pUC19 vector linearized with a 10-fold excess of Apol, religated and transformed into an E. coli strain expressing the LacZ beta fragment gene results in <1% white colonies.	Pass
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 100 units of Apol incubated for 4 hours at 50°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) After a 20-fold over-digestion of lambda DNA with Apol, >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 Apol.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of lambda DNA and a minimum of 100 Units of Apol incubated for 16 hours at 50°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass

Assay Name/Specification	Lot # 10033496
Protein Purity Assay (SDS-PAGE) Apol is \geq 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass

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



Tony Spear-Alfonso
Production Scientist
14 Nov 2018



Josh Hersey
Packaging Quality Control Inspector
17 Jan 2019