

New England Biolabs Certificate of Analysis

Product Name: *phi29 DNA Polymerase*
Catalog Number: *M0269L*
Concentration: *10,000 U/ml*
Unit Definition: *One unit is defined as the amount of enzyme that will incorporate 0.5 pmol of dNTP into acid insoluble material in 10 minutes at 30°C.*
Lot Number: *10047143*
Expiration Date: *01/2021*
Storage Temperature: *-20°C*
Storage Conditions: *10 mM Tris-HCl , 100 mM KCl , 1 mM DTT , 0.1 mM EDTA , 0.5 % Tween® 20 , 0.5 % IGEPAL® CA-630 , 50 % Glycerol, (pH 7.4 @ 25°C)*
Specification Version: *PS-M0269S/L v2.0*

phi29 DNA Polymerase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0269LVIAL	phi29 DNA Polymerase	10032152	Pass
B9000SVIAL	BSA, Molecular Biology Grade	10041006	Pass
B0269SVIAL	Φ29 DNA Polymerase Reaction Buffer	10029297	Pass

Assay Name/Specification	Lot # 10047143
Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 2 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 100 units of phi29 DNA Polymerase incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 2 containing 1 µg of T3 DNA in addition to a reaction containing Lambda-HindIII DNA and a minimum of 10 units of phi29 DNA Polymerase incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Phosphatase Activity (pNPP) A 200 µl reaction in 1M Diethanolamine, pH 9.8, 0.5 mM MgCl ₂ containing 2.5 mM p-Nitrophenyl Phosphate (pNPP) and a minimum of 100 units phi29 DNA Polymerase incubated for 4 hours at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.	Pass
Protein Purity Assay (SDS-PAGE)	Pass

