

Certificate of Analysis

Phi29 DNA Polymerase | EV-MOL-005

Product Name	Phi29 DNA Polymerase	Lot Number	EZV-PH-2604-001
Catalog Number	EV-MOL-005	Manufacture Date	April 2026
Size	500 U / 2,500 U	Expiration Date	April 2028
Storage Condition	-20°C	Release Date	April 2026

Product Specifications

Test / Parameter	Specification	Lot Result	Status
Purity (SDS-PAGE)	>95% (single band at ~66.7 kDa)	97.1%	PASS
Molecular Weight	~66.7 kDa (SDS-PAGE)	66.7 kDa	PASS
Concentration	10 U/μL	10.4 U/μL	PASS
RCA Activity	>100-fold amplification of 1 ng plasmid in 4 h at 30°C	>200-fold	PASS
Processivity	>70 kb products on circular template (gel analysis)	70 kb confirmed	PASS
3'→5' Proofreading Exonuclease	Confirmed activity on 3'-mismatched substrate	Active	PASS
Exonuclease Contamination	No detectable degradation (λDNA, 200 U, 4 h, 37°C)	None detected	PASS
Endonuclease Activity	No nicking of supercoiled pUC19 (200 U, 4 h, 37°C)	None detected	PASS
RNase Activity	No degradation of 5 μg RNA (200 U, 2 h, 37°C)	None detected	PASS
pH (formulation buffer)	7.2–7.6	7.4	PASS
Sterility	No microbial growth (7-day incubation)	No growth	PASS

Formulation Buffer

10 mM Tris-HCl (pH 7.4), 50 mM KCl, 1 mM DTT, 0.1 mM EDTA, 50% glycerol.

Unit Definition

One unit (U) is defined as the amount of Phi29 DNA Polymerase required to incorporate 0.5 nmol of dTMP into acid-insoluble material in 10 minutes at 30°C in a 50 μL reaction containing 10 μg/mL poly(dA)-oligo(dT) template-primer and 33 μM [methyl-³H]-dTTP.

Quality Release Statement

This lot of Phi29 DNA Polymerase (EV-MOL-005) has been tested according to the specifications listed above and meets all release criteria. This Certificate of Analysis is issued by Enzoverta Life Sciences LLC Quality Assurance department.

Quality Assurance Signature:

Date Issued: April 2026

QA Director, Enzoverta Life Sciences LLC

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