

CERTIFICATE OF ANALYSIS

PRODUCT IDENTIFICATION

Product Name	Phi29 Rolling Circle Amplification Kit
Catalog Number	EV-SGR-012
Category	Template Amplification
Lot Number	LOT-PENDING — Enter lot number on release
Manufacturing Date	See product label
Expiry Date	See product label
Storage Conditions	-20°C, protect from light
Appearance	Kit: enzyme + buffer + dNTPs
Grade	Research Grade
Regulatory Status	For Research Use Only (RUO)

SPECIFICATIONS AND TEST RESULTS

Parameter	Specification	Test Method	Result	Pass/Fail
Phi29 DNA Polymerase Activity	≥10,000 units/mL	Incorporation of dNTPs into acid-insoluble material using primed M13mp18 ssDNA template at 30°C	12,400 units/mL	PASS
Rolling Circle Amplification Efficiency	≥1000-fold amplification from 10 ng circular template in 4 hours at 30°C	Fluorometric quantification (Qubit) of amplified product from pUC19 plasmid template	1,850-fold amplification	PASS
Exonuclease Contamination	No degradation of 1 µg supercoiled pUC19 plasmid after 16 hours at 30°C	Agarose gel electrophoresis (1% TAE) with ethidium bromide staining	No degradation detected	PASS
Endonuclease Contamination	No conversion of supercoiled to relaxed/linear forms after 4 hours at 30°C	Agarose gel electrophoresis with supercoiled pBR322 substrate	>95% supercoiled form retained	PASS
RNase Contamination	No degradation of 1 µg RNA after 4 hours at 30°C	Denaturing agarose gel electrophoresis of yeast RNA substrate	No degradation detected	PASS
Sanger Sequencing Performance	≥800 bp read length (QV20) from RCA-amplified plasmid template	ABI 3730xl capillary electrophoresis with BigDye v3.1 chemistry using M13 forward primer	952 bp (QV20)	PASS
Functional Performance (BAC)	≥500-fold amplification from	Qubit dsDNA HS quantification of	680-fold amplification	PASS

Amplification)	50 ng BAC template in 6 hours at 30°C	amplified 150 kb BAC clone		
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RELEASE AUTHORISATION

QC Status	RELEASED — Meets Enzoverta Life Sciences specifications
Authorised By	Enzoverta Quality Control Department
Issue Date	2026-05-07
Document Number	CoA-EV-SGR-012-LOT-PENDING

This Certificate of Analysis confirms that the above product lot meets Enzoverta Life Sciences quality specifications at the time of manufacture. For technical assistance, contact techsupport@enzoverta.com. For Research Use Only. Not for use in diagnostic procedures.