

AMPIGENE® E. coli DNA Detection Kit (qPCR)

Probe-based qPCR kit for sensitive and specific quantification of residual E. coli host cell DNA

The AMPIGENE® E. coli DNA Detection Kit (qPCR) enables you to detect sub-picogram levels of residual DNA from Escherichia coli expression systems in biopharmaceutical products using probe-based quantitative PCR. The kit delivers results in under 5 hours when paired with the AMPIXTRACT™ Magnetic Bead Extraction Kit (ENZ-GEN514, sold separately), providing a complete extraction-to-answer workflow for in-process monitoring and final product release testing. The kit includes a well-characterized E. coli DNA standard (15 ng/μL) for generating a 5-point standard curve spanning 15 fg/μL to 150 pg/μL — covering the full range from in-process samples with higher DNA levels to final drug substance with trace-level residuals. Enzo's AMPIGENE® E. coli DNA Kit is fully platform agnostic — it runs on any FAM-capable real-time PCR system with no lock-in or requalification required.

Probe-Based qPCR for Highly Sensitive Quantitation The AMPIGENE® E. coli DNA Detection Kit provides highly sensitive detection of E. coli DNA with no cross-reactivity with human DNA, allowing you to use small sample volumes to generate accurate results. The broad linear range of the probe-based assay covers 15 fg to 150 pg/μL, enabling you to test samples with variable DNA levels in the same run. Linearity ($R^2 > 0.99$) is demonstrated across the full standard curve range.

Ordering Information

[Order Online »](#)

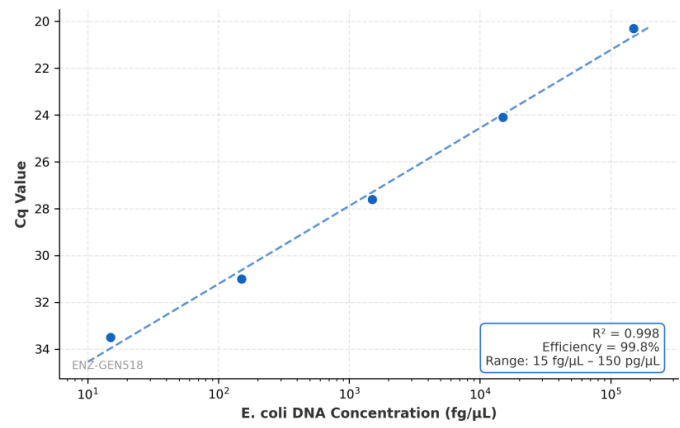
ENZ-GEN518-0100	100 reactions - 100Reactions
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Manuals, SDS & CofA

[View Online »](#)

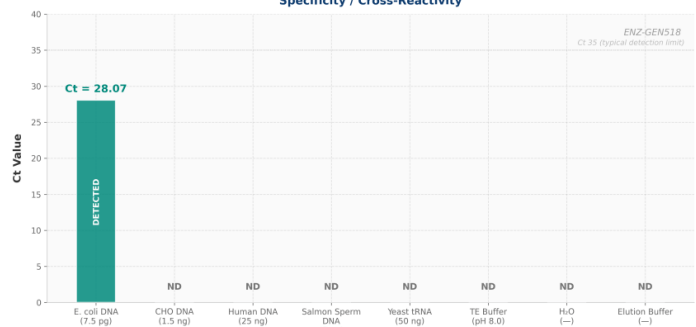
- Highly sensitive qPCR detection of residual E. coli DNA — LOD 15 fg/μL, LOQ 15 fg/μL
- Results in under 5 hours (extraction + qPCR)
- Broad dynamic range: 15 fg/μL – 150 pg/μL (5-point standard curve)
- E. coli DNA standard included for quantitative analysis
- Specific to E. coli DNA — no cross-reactivity with human DNA
- Platform agnostic — runs on any FAM-capable qPCR system, no lock-in or requalification
- Linearity $R^2 > 0.99$; Precision $\leq 15\%$ CV
- Sample recovery: 80–100%
- ICH Q2(R2) method validation report available at no extra cost
- Suitable for Research and Manufacturing Use

AMPIGENE® E. coli DNA Detection Kit (qPCR)
Standard Curve



AMPIGENE® E. coli DNA Detection Kit (qPCR)

Specificity / Cross-Reactivity



Handling & Storage

Use/Stability	When stored and handled as directed, the kit is stable until the expiration date on the label. Protect from light.
Handling	Store 2X E. coli DNA Assay Mix, 10X E. coli Probe Mix, and E. coli DNA 15 ng/μL at -20°C (Long-term), protected from light. Avoid repeated freeze-thaw cycles. Prepared standard dilutions may be stored at 2–8°C for same-day use.
Short Term Storage	+4°C
Long Term Storage	-20°C
Shipping	Dry Ice

Regulatory Status RUO - Research Use Only

Product Details

Application	qPCR
Contents	E. coli DNA 15 ng/μL (40 μL); 2X E. coli DNA Assay Mix (1.5 mL); 10X E. coli Probe Mix (300 μL); DNA Dilution Buffer (7 mL); Nuclease-free H ₂ O (2 mL)
Sensitivity	LOD: 15 fg/μL; LOQ: 15 fg/μL

Technical Info / Product Notes Easy to Use, Results in Under 5 Hours

First, extract DNA from your in-process purification and drug substance samples using the AMPIXTRACT™ Magnetic Bead Extraction Kit (ENZ-GEN514, sold separately). Then perform qPCR to compare DNA amounts in your test samples to a standard curve generated with the included E. coli DNA standard. The streamlined workflow — sample preparation, assay setup, and instrument run with data analysis — can be completed in under 5 hours.

Standard curve: 5-point, 150 pg – 15 fg/μL. Reaction volume: 30 μL (20 μL master mix + 10 μL template). Detection: FAM fluorescence. Specificity: E. coli genomic DNA; no cross-reactivity with human DNA.

A digital PCR (dPCR) version of this kit is also available (ENZ-GEN517) for absolute quantification without standard curve dependency.



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