AMPIGENE® CHO DNA Detection Kit (qPCR)

Probe-based qPCR kit for sensitive and specific quantification of residual CHO host cell DNA

The AMPIGENE® CHO DNA Detection Kit (qPCR) enables you to detect sub-picogram levels of residual DNA from Chinese Hamster Ovary (CHO) cell lines 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 CHO DNA standard (30 ng/µL) for generating a 6-point standard curve spanning 0.3 ng to 3 fg/µL — providing the broad dynamic range needed to test samples with variable DNA levels in the same assay, from in-process samples with higher amounts of DNA to final drug substance with trace-level residuals. <p Enzo's AMPIGENE® CHO 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® CHO DNA Detection Kit provides highly sensitive detection of CHO DNA, allowing you to use small sample volumes to generate accurate results. The broad linear range of the probe-based assay allows you to test samples with variable levels of CHO DNA in the same run — from in-process samples with higher DNA amounts to bulk drug substance with very low residual levels. Linearity ($R^2 > 0.99$) is demonstrated across the full 6-point standard curve range of 3 fg/µL to 0.3 ng/µL. Residual host cell DNA from CHO cell lines is a critical quality attribute in biopharmaceutical manufacturing. ICH Q6B and FDA/WHO guidelines establish strict limits for residual DNA in final drug products. Quantitative PCR (qPCR) is the gold-standard method for residual HCD quantification, offering high sensitivity, specificity, and throughput.

- Highly sensitive qPCR detection of residual CHO DNA — LOD 0.3 fg/µL, LOQ 3 fg/µL
- Results in under 5 hours (extraction + qPCR)
- Broad dynamic range: 3 fg/µL – 0.3 ng/µL (6-point standard curve)
- CHO DNA standard included for quantitative analysis
- Platform agnostic — runs on any FAM-capable qPCR system, no lock-in or requalification
- Linearity $R^2 > 0.99$; Precision ≤ 15% CV
- Sample recovery: 80–120%
- ICH Q2(R2) method validation report available at no extra cost
- Suitable for Research and Manufacturing Use

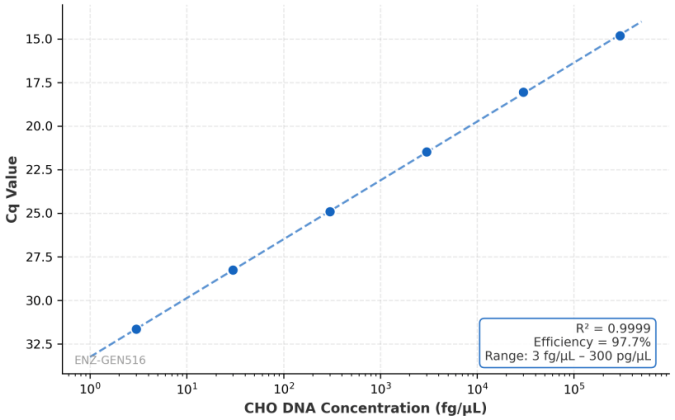
Ordering Information

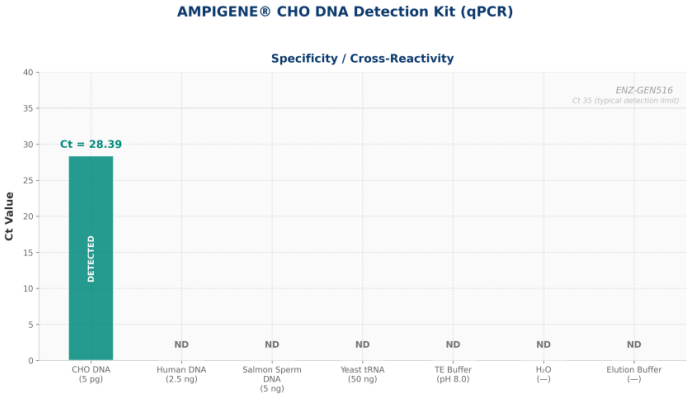
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ENZ-GEN516-0100	100 reactions - 100Reactions

Manuals, SDS & CofA

View Online »


AMPIGENE® CHO DNA Detection Kit (qPCR)
Standard Curve
Cq Value
15.0
17.5
20.0
22.5
25.0
27.5
30.0
32.5
10^0
10^1
10^2
10^3
10^4
10^5
CHO DNA Concentration (fg/µL)
R² = 0.9999
Efficiency = 97.7%
Range: 3 fg/µL – 300 pg/µL
ENZ-GEN516


AMPIGENE® CHO DNA Detection Kit (qPCR)
Specificity / Cross-Reactivity
ENZ-GEN516
Ct 35 (typical detection limit)
Ct Value
40
35
30
25
20
15
10
5
0
Ct = 28.39
DETECTED
ND
ND
ND
ND
ND
ND
CHO DNA (5 pg)
Human DNA (2.5 ng)
Salmon Sperm DNA (5 ng)
Yeast tRNA (50 ng)
TE Buffer (pH 8.0)
H₂O (—)
Elution Buffer (—)

Handling & Storage

Use/Stability	When stored and handled as directed, the kit is stable until the expiration date on the label.
Handling	Store CHO DNA, 2X DNA Assay Mix, and 10X CHO Probe Mix 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	CHO DNA 30 ng/µL (40 µL); 2X DNA Assay Mix (1.5 mL); 10X CHO Probe Mix (0.3 mL); DNA Dilution Buffer (10 mL); Nuclease-free H□O (2 mL)
Sensitivity	LOD: 0.3 fg/µL; LOQ: 3 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 CHO DNA standard. The streamlined workflow — sample preparation, assay setup, and instrument run with data analysis — can be completed in under 5 hours. Standard curve: 6-point (D1–D6), 0.3 ng – 3 fg/µL. Reaction volume: 30 µL (20 µL master mix + 10 µL template). Detection: FAM fluorescence. A digital PCR (dPCR) version of this kit is also available (ENZ-GEN515) for absolute quantification without standard curve dependency.

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