AMPIGENE® CHO DNA Detection Kit (dPCR)

Digital PCR kit for absolute quantification of residual CHO host cell DNA with built-in inhibition control

The AMPIGENE® CHO DNA Detection Kit (dPCR) is a powerful digital PCR solution for quantitating residual DNA from CHO expression systems, which are the dominant platform for therapeutic protein and monoclonal antibody production. By harnessing probe-based dPCR chemistry with a built-in Internal Positive Control (IPC), the AMPIGENE® CHO assay provides a rapid and reliable approach for accurately quantifying residual CHO DNA without standard curve dependency. The assay offers exceptional sensitivity (LOD 0.2 fg/µL) and specificity, helping ensure that quantitation data obtained from a wide range of sample types and is reliable and consistent solution. The dual-channel design (FAM for CHO target, HEX for IPC) monitors for PCR inhibition in every sample, instilling confidence in your results even with complex biopharmaceutical matrices. DNA extraction requires the AMPIXTRACT™ Magnetic Bead Extraction Kit (ENZ-GEN514), sold separately.

Absolute Quantification — No Standard Curve Required Digital PCR provides single-molecule counting for unmatched precision at ultra-low DNA concentrations, making it ideal for final product release testing where regulatory limits are strictest. Unlike qPCR, dPCR partitions each sample into thousands of independent reactions, enabling absolute quantification through Poisson statistics — eliminating standard curve variability and delivering superior precision at trace-level concentrations.

Ordering Information

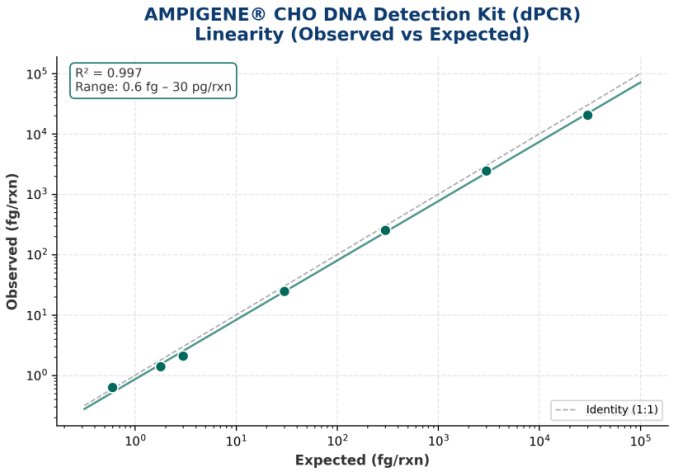
Order Online »

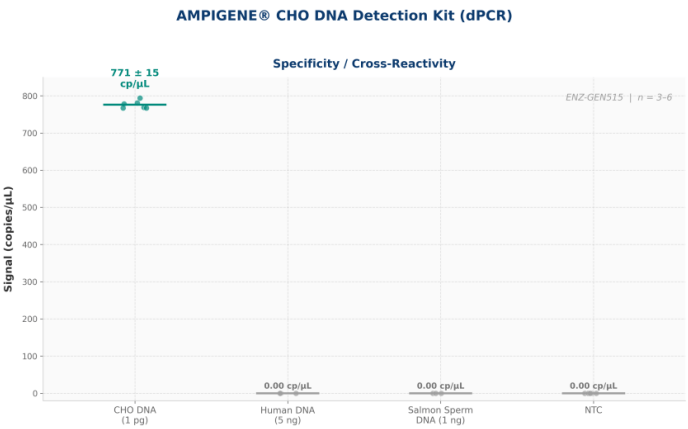
ENZ-GEN515-0100	100 reactions - 100Reactions

Manuals, SDS & CofA

View Online »

- Accurate, absolute quantification of residual CHO DNA — no standard curve required
- Highly sensitive — LOD 0.2 fg/µL, LOQ 1 fg/µL
- Built-in Internal Positive Control (IPC) on HEX channel monitors for PCR inhibition in every sample
- Easy-to-use kit with 5X CHO Taq/Assay Mix and 20X CHO Probe mix — results in approximately 3 hours
- Dynamic range: 0.2 fg/µL – 1 pg/µL
- Platform agnostic — runs on any dPCR system, no lock-in or requalification
- Linearity $R^2 > 0.99$; Precision ≤ 15% CV
- Sample recovery: 81–93%
- ICH Q2(R2) method validation report available at no extra cost
- Suitable for Research and Manufacturing Use


AMPIGENE® CHO DNA Detection Kit (dPCR)
Linearity (Observed vs Expected)
R² = 0.997
Range: 0.6 fg – 30 pg/rxn
Identity (1:1)
Observed (fg/rxn)
Expected (fg/rxn)


AMPIGENE® CHO DNA Detection Kit (dPCR)
Specificity / Cross-Reactivity
771 ± 15 cp/µL
ENZ-GEN515 | n = 3–6
Signal (copies/µL)
0.00 cp/µL
0.00 cp/µL
0.00 cp/µL
CHO DNA (1 pg)
Human DNA (5 ng)
Salmon Sperm DNA (1 ng)
NTC

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 all components at −20°C (Long term), and protected from light. Avoid repeated freeze-thaw cycles.
Short Term Storage	4 °C
Long Term Storage	−20°C
Shipping	Dry Ice

Regulatory Status

RUO - Research Use Only

Product Details

Application	dPCR
Contents	5X CHO Taq/Assay Mix (360 µL); 20X CHO Probe mix (90 µL)
Sensitivity	LOD: 0.2 fg/µL; LOQ: 1 fg/µL
Technical Info / Product Notes	Detection channels: FAM (CHO target) / HEX (IPC). Dynamic range: 0.2 fg/µL – 1 pg/µL. NTC threshold: ≤ 0.11 cp/µL. IPC expected readout: 10–100 cp/µL (HEX). Reaction volume: 9 µL per well (7 µL mix + 3 µL template). Conversion: DNA (fg/rxn) = readout (cp/µL) × 0.81. Requires AMPIXTRACT™ Magnetic Bead Extraction Kit (ENZ-GEN514), sold separately. A qPCR version of this kit is also available (ENZ-GEN516) with CHO DNA standard included.

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