

ResiQuant® Universal DNA Residual Sample Pretreatment Kit

Magnetic bead–based enrichment and purification of residual host-cell DNA from biopharmaceutical samples

PICOGRAM-LEVEL SENSITIVITY

Designed to isolate low-level residual DNA from biological solutions.

BROAD MATRIX COMPATIBILITY

Applicable across diverse production hosts and biopharmaceutical matrices.

RECOVERY PERFORMANCE

Typical extraction recovery rate: 70%–130%.

Product overview

ResiQuant® Universal DNA Residual Sample Pretreatment Kit is designed to extract and purify residual host-cell DNA from biopharmaceutical products at different process stages. Its proprietary magnetic bead–based workflow removes proteins, salts, detergents, and other matrix components, preparing samples for efficient downstream residual DNA quantification.

Key features

- Compatible with residual DNA detection workflows and corresponding quantitative DNA assay kits.
- Broad host-cell applicability, including CHO, E. coli, human cells, Vero, Pichia, NS0, and MDCK cells.
- Supports high-throughput workflows; an automation-compatible version is available.
- Reliable recovery of short residual DNA fragments from complex biological samples.
- Flexible sample handling, including drug-product matrices with very high IgG content.

Typical applications

Pretreatment of process intermediates, drug substance, and drug product samples for residual host-cell DNA testing in process development, scale-up, manufacturing, and quality-control workflows.

General product characteristics

Product type	Residual host-cell DNA sample pretreatment kit
Extraction principle	Magnetic bead–based DNA capture and purification
Compatible sample sources	Biopharmaceutical samples from upstream and downstream processing
Host-cell applicability	CHO, E. coli, human, Vero, Pichia, NS0, MDCK, and other suitable cell types
Typical recovery rate	70%–130%
Storage	Box 1: room temperature. Box 2: –40°C to –18°C.
Transport	Box 1: room temperature. Box 2: dry ice.
Shelf life	12 months when stored as directed

Note: Product label, user manual, and lot-specific Certificate of Analysis govern release and use.

PRODUCT INFORMATION

Ordering information

Catalog No.	Product name	Size
CRB00-0011	ResiQuant® Universal DNA Residual Sample Pretreatment Kit	50 reactions
CRB00-0012	ResiQuant® Universal DNA Residual Sample Pretreatment Kit	100 reactions

Catalog availability and pack sizes should be confirmed at the time of order.

Workflow summary

1 Sample preparation Dilute samples as appropriate using sterile-filtered 1× PBS. Include a negative process control and, where appropriate, an extraction/recovery control spiked with standard DNA.

2 Lysis and DNA binding Treat samples with Proteinase K, Proteinase K Buffer, and 5 M NaCl; incubate at 70°C. Add freshly prepared lysis/binding solution, isopropanol, and magnetic beads.

3 Magnetic separation and washing Capture beads on a magnetic rack, remove supernatant, wash with prepared Wash Buffer, then wash with freshly prepared 70% ethanol.

4 Elution Elute DNA in Elution Buffer at 70°C, separate beads magnetically, and transfer eluate to a fresh microcentrifuge tube for prompt analysis.

Before you begin

- Add 100% ethanol to Wash Buffer as indicated on its label before use. Prepare 70% ethanol fresh for each extraction.
- Prepare lysis/binding solution fresh for each sample: 200 µL Lysis/Binding Buffer + 9 µL Glycogen + 0.2 µL Yeast tRNA. Do not use Yeast tRNA for yeast residual DNA extraction.
- Required but not included: vortex mixer, magnetic rack, centrifuge, water/dry bath, 1.5 mL tubes, analytical-grade ethanol and isopropanol, sterile-filtered 1× PBS, 5 M NaCl, and PCR-grade water.

Storage, transport and shelf life

Storage	Box 1 at room temperature; Box 2 at –40°C to –18°C.
Transportation	Box 1 at room temperature; Box 2 transported with dry ice.
Shelf life	12 months under the specified storage conditions.
Package contents	Assay kit only; equipment and ancillary reagents are not included.

Important use notes

- Avoid over-drying magnetic beads, which may reduce DNA recovery.
- For high-protein samples, consider sample dilution and optimization of Proteinase K amount or incubation time.
- Adjust low-pH samples toward a neutral range and ensure adequate salt concentration for efficient recovery.
- Test purified DNA promptly after extraction.

INTENDED USE For research and manufacturing use only. Not intended for diagnostic or therapeutic use. This general datasheet does not replace the product label, user manual, Certificate of Analysis, or Safety Data Sheet.