Tribioscience

Catalog: TBS6032-100

Host Cell Residual DNA Sample Preparation Kit (100 Samples)

For Human, HEK293, CHO, E. coli, MDCK, NSO, Pichia, Sf9, Vero and Baculovirus in Biological Processing

DESCRIPTION

Residual DNA (rDNA) is defined as the sum of DNA and fragments present in biological samples derived from recombinant host cells during expression, sometimes it is also referred to as residual host cell DNA. The potential risks are associated with the presence of rDNA in products for human use. WHO and FDA regulations require to confirm its clearance in bioprocesses, and monitor the rDNA levels in final drug substances. Therefore, accurate, sensitive, and quantitative test methods are needed to ensure rDNA at specified levels.

The TribioScience's Host Cell Residual DNA Sample Preparation Kit is designed to extract residual host cell DNA from diverse range of recombinant protein samples. With simple process, optimized lysis condition and powerful technologies of magnetic particles, this kit is capable to capture trace rDNA from biological samples in recombinant express processing. It is suitable to high-through put and automation workstation.

KEY FEATURES

- **High efficiency:** high yield rate.
- **Simple and fast:** Just lysis-bind-wash-elute.
- **Safe:** No organic solvent.

APPLICATIONS

- Isolate and purify Residual DNA from various sample types from protein recombination processing.
- DNA can be directly used for PCR, cloning, sequencing, enzymatic analysis without further manipulation.

KIT CONTENTS (for 100 samples)

Name	Volume	Store
Magnetic Binding Buffer (MBB)	50 ml	4°C
Lysis Buffer (LB)	33 mL	4°C
Washing Buffer (WB)	20 mL	4°C
Elute Buffer (EB)	6 mL	4°C
DNA Binding Enhancer	0.3mL	-20°C

Note: Add 49 ml absolute ethanol to WB before use.

STORAGE CONDITION

The Residual DNA Sample Preparation Kit is shipped at room temperature. All the buffers are suggested to store at 4 °C. Shelf life is 12 months after receipt.

PROTOCOL

1. Set a block heater to 37°C. Incubate the Magnetic Binding Buffer at 37 °C for ~5 min with intermittent vortexing.
2. Label 2 mL tube.
3. Add 200 µL of protein sample to labelled tubes.
4. Add 300 µL lysis buffer to every 110 µL of sample.
5. Briefly vortex and spin.
6. Incubate at 55°C for 30min. Then, 85 °C for 10min. Cool the sample to RT.
7. Add 200µL of chloroform, vortex to mix. Then, centrifuge under 12,000 for 5 min. Aspirate 100µL of the supernatant to a labelled new tube.
8. Add 2 µL DNA Binding Enhancer to each tube and gently mix.
9. Add 500 µL of well-dispersed Magnetic Binding Buffer per 100 µL supernatant. Invert twice, then vortex briefly, incubate 5min at RT.
10. Spin for 15 sec or place the tubes on magnetic stand for 5 min or until the solution is clear and discard the supernatant.
11. Remove tubes from the magnetic stand, then add 300 µL Washing Buffer. Briefly vortex and spin, then place the tube on magnetic stand for 2-5 min until the MPs are completely clear from the solution. Aspirate and discard the supernatant.
12. Repeat step #12 for one more wash.
13. Dry the beads at RT for 10 min. [Air-dry to remove ethanol form the wash solution. Do NOT over-dry the beads.]
14. Add 50 µL of elute buffer to each tube.
15. Vortex for 10 sec and incubate at RT for 5 min. vortex every 2-3 min to resuspend particles.
16. Briefly spin and place the tubes into the magnetic stand for 5 min or until the solution is clear.
17. Transfer the supernatant containing purified DNA to a new tube. (Note: purified DNA is recommended to be stored at -20°C for long-term storage).

For research use only.