*Trans*NGS® Host DNA Depletion Kit

Please read the manual carefully before use

Catalog No. EH301

Storage: at -20°C for one year

Description

*Trans*NGS® Host DNA Depletion Kit is a reagent kit designed for selective lysis of human cells in biological samples (blood, bronchoalveolar lavage fluid, sputum, nasal or oropharyngeal swabs, pleural or peritoneal fluid, cerebrospinal fluid, amniotic fluid, etc.) and removal of human nucleic acids. It can be used in conjunction with silica membrane spin column-based and magnetic bead-based kits for extraction of metagenomics DNA, enabling specific enrichment of microbial DNA from the sample.

Feature

• Efficient and specific removal of host nucleic acids.

• Simple operation, high compatibility with nucleic acid extraction reagents.

Application

Component	EH301-01 (50 rxns)
Universal Nuclease	250 µl
Host Cell Lysis Buffer（HCLB）	25 ml
Host DNA Digestion Buffer (HDDB)	10 ml
Proteinase K (20 mg/ml)	1 ml

Sample requirement

• Freshly collected samples

• Avoid repeated freeze-thaw cycles

Protocol

1. Transfer 1 ml of the sample into a 2 ml centrifuge tube and add 500 µl of Host Cell Lysis Buffer (HCLB). Mix thoroughly at room temperature using a vortex mixer (or orbital shaker) for 20 min.

* If the sample volume is less than 1 ml, supplement with 1×PBS to a total volume of 1 ml; if the sample volume exceeds 1 ml, centrifuge at 12,000 rpm for 1 min, collect the precipitate, and resuspend in 1 ml of 1×PBS.

2. Place the tube in a centrifuge and spin at 12,000 rpm for 3 min. Carefully discard the supernatant using a pipette.

* Do not touch the sediment at the bottom of the centrifuge tube during the transfer process to prevent loss of microbial DNA.

* Remove as much supernatant as possible to avoid residual host nucleic acids.

3. Add 190 µl of Host DNA Digestion Buffer (HDDB) and 5 µl of Universal Nuclease to the centrifuge tube, Vortex thoroughly, and incubate at 37°C for 10 to 15 min.

4. Add 20 µl of Proteinase K to the centrifuge tube, Vortex thoroughly, and incubate at 56°C for 10 min. After completion of the reaction, briefly centrifuge to collect the liquid from the tube walls, and immediately proceed with microbial DNA extraction.

5. Refer to the instructions provided with the commercial kit used for DNA extraction (such as EC107 or EE401, TransGen) for the DNA extraction procedure.

Note

• To ensure the quality of the extracted nucleic acids, avoid repeated freeze-thaw cycles.

• Use Nuclease-free sterile centrifuge tubes and pipette tips for all operations.

• Prepare 1×PBS (pH 7.4) solution and 2 ml sterile centrifuge tubes in advance.

For research use only, not for clinical diagnosis.

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