HB220526

Magnetic Residual DNA Sample Preparation Kit

Product Information

Product Name	Cat#	Size
Magnetic Residual DNA Sample Preparation Kit	18461ES25	25T
	18461ES60	100T

Product Description

The Magnetic Residual DNA Sample Preparation Kit is suitable for the pretreatment of residual DNA in various biological samples. It can maximize the separation and purification of trace amounts of host cell residual DNA in samples by using unique magnetic beads and carefully optimized buffer system.

The Magnetic Residual DNA Sample Preparation Kit can be used with a variety of host cell residual DNA detection kits, including CHO Host Cell DNA Residue Detection Kit (Cat#41301ES), HEK293 Host Cell DNA Residue Detection Kit (Cat#41302ES), Vero Host Cell DNA Residue Detection Kit (Cat#41303ES), and E.coli Host Cell DNA Residue Detection Kit (Cat#41304ES).

Product Components

Category	Components No.	Components Name	Cat#/Size	
			18461ES25 (25T)	18461ES60 (100T)
Part I	18461-A	Proteinase K (20 mg/mL)	0.5 mL/vial x1 Vial	1 mL/vial x2 Vial
Part II	18461-B	Magnetic Particles	0.5 mL/vial x1 Vial	1 mL/vial x2 Vial
	18461-C	Lysis Buffer	2.5 mL/vial x1 Vial	10 mL/vial x1 Vial
	18461-D	Binding Solution	10mL/vial x1 Vial	40 mL/vial x1 Vial
	18461-E	Wash Buffer A*	6 mL/vial x1 Vial (Add 9 mL of ethanol before use)	24mL/vial x1 Vial (Add 36 mL of ethanol before use)
	18461-F	Wash Buffer B*	3 mL/vial x1 Vial (Add 12 mL of ethanol before use)	12mL/vial x1 Vial (Add 48 mL of ethanol before use)
	18461-G	Elution Buffer	2.5 mL/vial x1 Vial	10 mL/vial x1 Vial
Part III	18461-H	Glycogen	225 μL/vial x1 Vial	900 μL/vial x1 Vial
	18461-I	Poly(A) potassium salt	150 μL/vial x1 Vial	600 μL/vial x1 Vial

Shipping and Storage

1. Part I is shipped with ice pack, 4°C for 1 year or -20°C for long-term storage.
2. Part II is shipped at room temperature and stored for 1 year at room temperature.
3. Part III is shipped on dry ice and stored at -20°C for 1 year.
4. After receiving the goods, please check whether the three components of Part I, Part II and Part III are complete, and store them in the corresponding storage temperature immediately.

Cautions

1. Please read the instruction manual carefully before use, and operate in strict accordance with the instruction manual. Sample processing is recommended to be carried out in a clean bench or a biological safety cabinet.
2. Pay attention to observe whether there is precipitation or turbidity of the solution stored at room temperature (especially when the room temperature is low such as winter), you can take a water bath at 37°C until the solution is clear to avoid affecting usage effect.

3. There may be residual magnetic beads during elution, so try to avoid aspirating magnetic beads when drawing samples.
4. Please change the tips frequently to avoid cross-contamination, When operating with this product.
5. For your safety and health, please wear personal protective equipment (PPE), such as laboratory coats and disposable gloves, when operating with this product.
6. This product is for research use **ONLY**!

Pre-Preparation

1. Self-provided equipment: vortex shaker, water bath or metal bath, centrifuge, magnetic separation rack, Hangzhou Aosheng Auto-Pure32A automatic nucleic acid extractor or other brands of fully automatic nucleic acid extractor.
2. Self-provided consumables: 10μL-1000μL low adsorption filter tips, 1.5 mL low adsorption centrifuge tubes, PCR tubes or 96-well plates and corresponding tube caps or membranes.
3. Self-prepared reagents: absolute ethanol (analytical grade), 1×PBS buffer (pH 7.4, free of Mg and Ca ions), ultrapure water.
4. **For the first use, add anhydrous ethanol of the volume indicated on the label or in the instructions to the bottles of Washing Solution A* and Washing Solution B*,** mix thoroughly before use, and mark them well. Cap the bottle tightly after use to maintain the ethanol level in the bottle.

Manual residual DNA extraction

1. Sample processing

1.1 If the sample contains a relatively high DNA content, such as a vaccine, please dilute it in an appropriate proportion with 1×PBS buffer (pH 7.4, free of Mg and Ca ions) and then extract **(dilution of the sample is to make the detection value is within the linear range of the standard curve and then ensure the accuracy of the detection. and usually a 100-fold dilution can be considered).**

1.2 If the sample to be tested is dry powder, dilute it to 10 mg/mL or 100 mg/mL with ultrapure water before use.

1.3 If the sample has a complex matrix, a standard addition and recovery experiment should be performed to determine the appropriate dilution.

2. Add 100 μL sample to 1.5 mL tube, then add 100 μL lysis buffer, 10 μL proteinase K, vortex and mix for 10 secs.

[Notes]: Add 10 μL proteinase K if the concentration of protein sample is 0-100 mg/mL, add 20 μL proteinase K if the concentration of protein sample is 100-200 mg/mL.

3. Incubate at 60°C for 20 mins.
4. Then add 400 μL of binding solution, 9 μL of glycogen, and 6 μL of Poly A potassium salt, and vortex and mix well.
5. Add 20 μL of magnetic beads, vortex and mix well, and let stand for 10 mins. Please vortex and mix it for 10 secs every 3 mins.

[Notes]: The magnetic beads need to be vortexed before use to ensure that the magnetic beads are thoroughly resuspended. After adding samples 4-5 times at one time, it is recommended to mix again.

7. Centrifuge briefly to get the solution down, and place the centrifuge tube on the magnetic rack for 1-2 mins. After the magnetic beads are completely absorbed, carefully remove the liquid.
8. Add 500 μL of Washing Solution A **(please check whether absolute ethanol has been added before use),** shake or vortex to mix to ensure that the magnetic beads are dispersed and there are no magnetic beads are aggregated on the wall of the centrifuge tube.
9. Centrifuge briefly, and place the centrifuge tube on a magnetic rack for 1-2 mins. After the magnetic beads are completely absorbed, carefully remove the liquid.
10. Add 500 μL of Washing Solution B **(please check whether absolute ethanol has been added before use),** shake or vortex to mix to ensure that the magnetic beads are dispersed and no magnetic beads are aggregated on the wall of the centrifuge tube.
11. Centrifuge briefly, and place the centrifuge tube on a magnetic rack for 1-2 mins. After the magnetic beads are completely absorbed, carefully remove the liquid.
12. To ensure that the residual liquid is removed as much as possible, centrifuge the tube for 10 secs quickly, place it on a magnetic rack, and use a 10 μL pipette to aspirate the residual liquid.
13. Open the cap of the tube and leave it at room temperature for 3 mins until the ethanol evaporates completely. No reflection or

appearing cracks on the surface of the magnetic beads indicate that the ethanol has completely evaporated.

14. Remove the tube from the magnetic stand, add 50-100 μL of pre-warmed eluate at 65°C, shake and mix well. Then centrifuge briefly, incubate it at 65°C for 5 mins, shake and mix once every 2-3 mins.

15. Briefly centrifuge again, place the centrifuge tube on a magnetic stand for 2 mins. After the magnetic beads are completely adsorbed, carefully transfer the DNA solution to a new centrifuge tube and store it at -20°C, or at -80°C for long-term storage.