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Urine DNA Kit

Product Number: DNK3601

Shipping and Storage

1. Buffer CB or Buffer IR may precipitate and precipitate at low temperatures. It can be dissolved again in a water bath at 37 ℃ for a few minutes to restore clarity and transparency. After cooling to room temperature, it can be used.
2. Proteinase K is stored in a ready to use glycerol buffer and transported at room temperature. After receipt, store at room temperature not exceeding 25℃ for at least 6 months, at 4℃ for 12 months, and at -20℃ for 2 years.
3. To avoid the volatilization, oxidation, and pH changes of reagents exposed to air for a long time, each solution should be covered tightly in a timely manner after use.

Components

Component	Storage	DNK3601 50 Preps
Buffer UB	RT	10 ml
Buffer CB	RT	15 ml
Buffer IR	RT	25 ml
Buffer WB	RT	13 ml
Buffer EB	RT	15 ml
Proteinase K	4℃	1 ml
Adsorption column AC	RT	50
Collection tube (2ml)	RT	50

Description

The DNA in urine comes from detached cells in the urethra, and using urine DNA for molecular biology basic research and clinical diagnosis has many special advantages: urine collection is non-invasive and non-invasive; Extracting DNA from urine is simpler than extracting DNA from blood. This product is specifically designed for extracting genomic DNA from urine, and the extracted DNA can be directly used for PCR reactions.

Features

1. Easy to operate, the entire process takes about 20 minutes to operate at room temperature, suitable for large-scale sample processing.
2. The DNA yield is generally 50-200ng/mL in urine for females and 3-50ng/mL in urine for males.
3. The extracted DNA is pure and can be directly used for PCR, DNA methylation identification, cancer detection, etc.
4. Safe and non-toxic, this reagent kit is non-toxic to the human body, and has no corrosive or irritating odor.
5. High cost-effectiveness, quality comparable to similar foreign products, but at a cheaper price.

Note

1. All centrifugation steps are completed at room temperature using a traditional desktop centrifuge with a speed of up to 13000 rpm.
2. Self prepared isopropanol is required.
3. Preheat the required water bath to 70℃ for later use before starting the experiment.

Protocol(Please read the precautions before the experiment)

Tip: Before the first use, please add the specified amount of anhydrous ethanol to Buffer WB and mix well. After adding, please

mark the box with a check mark indicating that ethanol has been added in a timely manner to avoid adding it multiple times!

1. Take 5-50ml of urine, place it in a centrifuge tube of appropriate size, and collect cell precipitates by centrifugation at 3000rpm.
2. Discard the supernatant carefully and add 200µl Buffer UB to resuspend the cells.
3. Add 20µl Proteinase K (20mg/ml) solution, mix well, then add 200µl Buffer CB, immediately vortex and shake thoroughly, and let it stand at 70℃ for 10 minutes. The solution strain is clear.
4. After cooling, add 100µl of isopropanol and immediately vortex and shake thoroughly to mix well. At this time, flocculent precipitation may occur.

   It is very important to immediately vortex or blow thoroughly in the above steps. Insufficient mixing seriously reduces production. If necessary, if the sample is viscous and difficult to mix, vortex oscillation can be used for 15 seconds to mix.
5. Add the previous mixture (including possible precipitates) to an adsorption column AC, centrifuge at 13000 rpm for 30-60 seconds (with the adsorption column placed in the collection tube), and discard the waste liquid in the collection tube.
6. Add 500µl Buffer IR, centrifuge at 12000rpm for 30 seconds, and discard the waste liquid.
7. Add 500µl Buffer WB (please check if anhydrous ethanol has been added first!), centrifuge at 12000rpm for 30 seconds, and discard the waste liquid.
8. Add 500µl Buffer WB, centrifuge at 12000rpm for 30 seconds, and discard the waste liquid.
9. Put the adsorption column AC back into the empty collection tube, centrifuge at 13000rpm for 2 minutes, and try to remove Buffer WB as much as possible to avoid residual ethanol in Buffer WB inhibiting downstream reactions.
10. Take out the adsorption column AC and place it in a clean centrifuge tube. Add 30µl Buffer EB to the middle of the adsorption membrane (Buffer EB is better preheated in a 65-70℃ water bath). Leave it at room temperature for 3-5 minutes and centrifuge at 12000 rpm for 1 minute. Add the obtained solution back into the centrifugal adsorption column, let it stand at room temperature for 2 minutes, and centrifuge at 12000 rpm for 1 minute.

    The larger the elution volume, the higher the elution efficiency. If a higher DNA concentration is required, the elution volume can be appropriately reduced, but the minimum volume should not be less than 15µl. If the volume is too small, it will reduce the DNA elution efficiency and DNA production.
11. DNA can be stored at 2-8℃, and if it needs to be stored for a long time, it can be placed at -20℃.