For research purpose only. Not for use in diagnostic procedures for clinical purposes. For IN VITRO USE ONLY.

PCRquick-spin™ PCR Product Purification Kit

Cat. No. **17202** 250 columns

DESCRIPTION

DNA fragments for probe DNA or ligation must be separated and purified from other DNA fragments. PCRquick-spin™ PCR Product Purification Kit employs a column method to purify target DNA and is designed to direct purification of double- or single-stranded PCR products (100bp-10kb) from amplification reactions and DNA cleanup from other enzymatic reactions. The column method uses a highly concentrated salt solution to keep the target DNA bound to the column membrane. PCRquick-spin™ PCR Product Purification Kit's buffers are optimized for efficient recovery of DNA and removal of contaminants. Since the binding process is specific for nucleic acids, the bound material can be separated and purified from impurities e.g. salts and proteins, by a simple washing step. Nucleic acids elute from the column membrane in a low salt buffer or water.

PCRquick-spin™ PCR Product Purification Kit promises a high yield of purification up to 70-90%. Futhermore , the purification process is quick and simple to perform. Using the 15 min direct purification method, PCR products are effectively purified from contaminants, including primer dimers. But to separate PCR product from nonspecific amplification products, use the agarose method (MEGA-spin™ Agarose Gel DNA Extraction Kit, Cat.No.17181, 17183).

STORAGE

Store at room temperature. The guaranteed date is labeled on the box.

KIT CONTENTS :

1. Binding Buffer	150ml
2. Washing buffer : Add 200ml of the absolute EtOH.	50ml
3. Elution buffer	20ml
4. PCRquick-spin column (Blue) : Columns containing the membrane.	250 columns
5. Collecting tube : Polypropylene tube for 2ml.	250 tubes

CONSIDERATIONS BEFORE USE

1. Selective binding

PCRquick-spin™ PCR Product Purification kit system combines the convenience of spin-column method with selective binding properties of a silica-gel membrane. Special buffers provided with this kit are optimized for efficient recovery of DNA and removal of contaminants in each specific application. DNA adsorbs to the silica-membrane in the presence of high salt while contaminants pass through the column. Impurities are efficiently washed away.

2. Efficient recovery of large fragments of DNA

The efficiency with which DNA is recovered from amplification reactions is a function of Its molecular weight. As the size of the DNA fragments increases, the yield progressively decreases. This kit gives reasonable yields of DNA fragments that are less than 7-10 kb in length (70-90%).

3. Efficient recovery of small amounts of DNA

The smaller the amount of DNA applied to amplification PCR product, the lower the yield of purified fragments.

CHARACTERISTICS

- High yield and quality.
- Save time - takes only 15 minutes to extract DNA fragment.
- Minimizes DNA loss – recovers DNA fragment without solvent extraction, precipitation, or other steps that can lead to lost or degraded DNA.
- Lab safety – does no use hazardous organic solvent.

PROTOCOL

1. Add 500㎕ of Binding buffer to PCR product (up to 20–50㎕) in 1.5ml microcentrifuge tube and mix well. It is necessary not to remove mineral oil or kerosene.
   Note : The 500㎕ of Binding-buffer is good for 20–50㎕ of PCR product (not including oil). If more than 50㎕ of PCR product is processed, add 700㎕ of Binding buffer.
2. After mixing, incubate at room temperature for 1min.
3. During the incubation time, place a spin column in a provided 2ml collection tube.
4. Load the sample to the spin column and centrifuge at 13,000rpm for 1min. Discard the flow-through after centrifuging and place the spin column back in the same 2ml collection tube.
   Note : The maximum volume of the column reservoirs is 800㎕. For larger volume, sample reload and spin again.
5. Add 700㎕ of Washing buffer to column and centrifuge at 13,000rpm for 1min. Discard the flow-through after centrifuging and place the spin column back in the same 2ml collection tube.
   Note : If the DNA will be used for salt sensitive applications, such as blunt-end ligation and direct sequencing, repeat the step 5 using 500㎕ of Washing buffer.
6. Centrifuge for 1 min at 13,000rpm to dry the spin membrane.
   Note : It is important to dry the spin membrane since residual ethanol may interfere with other reactions.
7. Put the column into a clean and sterile centrifuge tube. Add 50㎕ of Elution buffer or distilled water to the upper reservoir of the column, and let it stand for 1min. Then, centrifuge the tube assembly at 13,000 rpm for 60sec.
   Note : It is suggested to use at least 20㎕ of the Elution buffer to obtain the best result.