Hlingene Universal micro-DNA Purification kit

Code No.：

NG210S 100 T

NG210M 200 T

Contents	storage	100 T	200 T
Buffer PHY	RT	5 ml	10 ml
buffer GMB	RT	100 ml	200 ml
Buffer WB	RT	25 ml	50 ml
		Add absolute alcohol before use	
Buffer PE	RT	50 ml	100 ml
Spin Columns DC	RT	100	200
Buffer EB	RT	15 ml	15 ml
Collection tubes	RT	100	200

Storage:

1. All solutions should be clear, but it may form precipitates if temperature is low, can be heated in a 37 ℃ water bath for a few minutes to restore clarity.
2. Avoid reagent exposure to the air for a long time , which could be volatilization, oxidation, pH changes, the solution should be timely close the lid after use.

Introduction：

In the presence of highly disordered salts, DNA fragments are adsorbed on a silica matrix membrane in a centrifuge column, followed by a series of rapid rinsing-centrifugation steps, the primers, nucleotides, proteins, enzymes and other impurities were removed by rinsing solution. Finally, the pure DNA was eluted from the silicon matrix membrane by low salt and high pH elution buffer solution.

Product Specifications：

1. The adsorption amount among the columns is very small, and the repeatability is good.
2. The kits provide high yields of pure nucleic acids in minimal elution volumes. The highly concentrated DNA is suitable for direct use in applications, such as: enzyme digestion, ligation and transformation et al.
3. The yellow color is convenient for observing the effect of Sol and monitoring the change of pH.
4. The improved sol formulation greatly improves the buffer capacity and stability.

Safety Information:

1. All centrifugation steps are performed at room temperature and the centrifuge speed is required to reach 13,000 rpm.
2. The Sol contains irritating compounds and should be handled with gloves to avoid contact with skin, eyes and clothing. If contaminated skin, eyes, immediately with a large amount of water or saline rinse.
3. Generally, DNA fragments are between 100bp and 40kb is suitable.

NOTE:

Buffer PHY

It can be improved the binding ability of nucleic acid of silica gel column, which is pretreated with buffer PHY. Buffer PHY is a strong alkaline solution, Be careful with it. Store at room temperature. There may be precipitate formation during storage, please heat to 37 ℃ to make the precipitate completely disappear.

Usage: take a new spin column in the collection tube, add 50 μl of buffer PHY to the column, 13,000 rpm centrifuge for 1 min, Discard the flow-through and place the spin column back in the same collection tube, follow the next step.

Operation Procedure:

Tip: before the first use, please add absolute alcohol in the buffer WB.!

1. Sample preparation: A or B

   A: Gel

   Excise the DNA fragment from the agarose gel with a clean, sharp scalpel.

   Minimize the size of the gel slice by removing extra agarose.

   Weigh the gel slice in a colorless tube. Add 3 volumes of Buffer GMB to 1 volume of gel (100 mg or approximately 100 µl). For >2% agarose gels, add 6 volumes of Buffer DD.

   B: PCR or other liquid sample

   Every 20 µl PCR product or other liquid sample add 100 µl buffer GMB, fully mixed. Follow step 3.
2. Incubate at 56 ℃ for 10 min (or until the gel slice has completely dissolved). To help dissolve gel, mix by vortexing the tube every 2–3 min during the incubation.

   Optional：Add 1 gel volume of isopropanol to the sample and mix by inverting the tube several times. For example, if the agarose gel slice is 100 mg, add 100 µl isopropanol. Do not centrifuge the sample at this stage.
3. Place a spin column which pretreated with buffer PHY in a provided 2 ml collection tube in a suitable rack. To bind DNA, apply the sample to the spin column, and centrifuge for 1 min at 12,000 rpm. The maximum volume of the column reservoir is 750 µl. For sample volumes of more than750 µl, simply load and spin again.
4. Discard the flow-through and place the spin column back in the same collection tube.
5. Optional：Add 500 µl of Buffer PE to the spin column and centrifuge for 30 sec, 12,000 rpm. Discard the flow-through and place the spin column back in the same collection tube.
6. Add 600 µl of Buffer WB to the spin column and centrifuge for 30 sec, 12,000 rpm. Discard the flow-through and place the spin column back in the same collection tube.
7. Add 600 µl of Buffer WB to the spin column and centrifuge for 30 sec, 12,000 rpm again.
8. Discard the flow-through and place the spin column back in the same collection tube, centrifuge for an additional 2 min, 12,000 rpm.
9. Place the spin column into a clean 1.5 ml microcentrifuge tube.
10. add 10-30 µl of Buffer EB or water to the center of the membrane, let the column stand for 2 min, and then centrifuge for 1 min at 12,000 rpm（The elution buffer can be preheated at 65-70 ℃ to increase the elution effect）.

Note: The volume of elution buffer should not be less than 10 µl, otherwise it may affect recovery efficiency. The pH value of elution buffer will have a great effect on eluting.