Whole Blood Genomic DNA Extraction Kit

Cat: D1850
Size: 50T/200T
Storage: Room temperature(15℃-25℃) dry storage, reinspection period of 12 months, 2℃-8℃ storage time longer.

Kit Components:

Kit Components	50T	200T
10×Red Cell Lysate	30mL	120mL
White Blood Cell Lysate	30mL	120mL
Protein Precipitate Solution	30mL	120mL
DNA Solving Liqiud	15mL	60mL

Introduction:

The product is suitable for dealing with fresh or have added anticoagulant blood samples, isopropyl alcohol precipitation method, easy to operate, especially suitable for a large number of blood genomic DNA extraction. The extracted DNA can be used for PCR, enzyme digestion and other routine molecular biology experiments. A small number of samples can also buy our company's adsorption column kit(D1800 whole blood genome DNA extraction kit).

Before using this product, please dilute 10×red blood cell lysate with water to 1×ready-to-use red blood cell lysate according to the amount used.

Processed blood volume	1mL	5mL	10mL
Red Cell Lysate(1×)	5mL	25mL	50mL
White Blood Cell Lysate	0.5mL	2.5mL	5mL
Protein Precipitate Solution	0.5mL	2.5mL	5mL
isopropyl alcohol	1mL	5mL	10mL
75% ethanol	1mL	5mL	10mL
DNA Solving Liqiud	100μL	0.5mL	1mL

Protocols:

Take 1mL whole blood as an example

1. Treatment of the sample: Add 3 times the volume of 1×red blood cell lysate(please confirm that it has been diluted) into the blood, thoroughly reverse and mix, centrifuge 12000rpm for 1min(if it is a large amount of extraction and a large centrifuge, it can be centrifuged 11000rpm for 5min), carefully absorb the supernatant, and then add 2 times the volume of 1×red blood cell lysate, gently blow and precipitate with a pipette. Thoroughly mix, centrifuge, discard the supernatant, and precipitate into white blood cells.
2. Add 500uL white blood cell lysate to the precipitate, shake or blow with pipette until thoroughly mixed. Water bath at 65℃ for 10-20min, during which the centrifuge tube can be reversed and mixed several times until the solution is clear and no obvious cells can be seen.

3. Add 500uL of protein precipitate solution and mix thoroughly upside down. White precipitate will appear at this time. Bathe at 65℃ for 5min and centrifuge at 12000rpm for 5min. Carefully absorb supernatant(do not suck into the lower layer of precipitation or float insoluble matter) and transfer to a clean centrifuge tube.
4. Add 1mL isopropyl alcohol into the supernatant and mix well. Centrifuge at 12000rpm for 5min, you can see a small amount of white DNA precipitation at the bottom of the tube, discard the supernatant.
5. Add 1mL 75% ethanol into the centrifuge tube, centrifuge at 12000rpm for 5min, and discard the supernatant. The residual supernatant can be removed with a pipette after another short centrifugation.
6. Place the centrifuge tube open at room temperature or 50℃ for a few minutes, otherwise ethanol may affect subsequent experiments such as enzyme digestion, PCR, etc.
7. Add 100-300μL DNA solving liqiud into the centrifuge tube and let the DNA dissolve naturally at room temperature. If the DNA is difficult to dissolve, it can be placed at room temperature overnight or put the centrifuge tube in a water bath of 50-60℃ and heated for 5min.

Notes:

1. The sample should avoid repeated freezing and thawing, otherwise it will lead to the extraction of small DNA fragments and the extraction amount is also reduced.
2. If the solution in the kit precipitates, it can be re-dissolved in a 65℃ water bath before use, without affecting the extraction effect.
3. DNA concentration and purity detection: the size of the obtained genomic DNA fragments is related to the sample storage time, shear force during operation and other factors. The recovered DNA fragments can be detected by agarose gel electrophoresis and ultraviolet spectrophotometer for concentration and purity. The DNA should have a significant absorption peak at OD260, and an OD260 value of 1 corresponds to about 50μg/mL double-stranded DNA and 40μg/mL single-stranded DNA. The OD260/OD280 ratio should be 1.7-1.9, if the elution buffer is not used and deionized water is used, the ratio will be lower, because the pH and the presence of ions will affect the light absorption value, but does not indicate low purity.

Related Products:

D1800	*Whole Blood genomic DNA extraction kit*
D1010	*6×DNA Loading Buffer*
T1060	*50×TAE buffer*
T1050	*5×TBE buffer*
M1060	*D2000 DNA Ladder*
M1400	*1kb DNA Ladder*
G8142	*GoldView Type II nucleic acid stain (5000×)*