

Ten Minutes Blood DNA Kit

(10 Minutes DNA Release Kit-3) (JZ-003)

This Kit was designed to get DNA lysis (40-200ng/ul/50ul) from human or animal blood(20-25ul) within 10 minutes. The DNA (including the Mitochondrial DNA) is ready to be used for PCR, PCR/RPLP* (Restriction Fragment Length Polymorphism) and any purpose on the PCR analysis. **At present, this kit is good helper for the point mutation in the biology and biological medicine.**

* PCR, PCR/RPLP on analyses of Human mtDNA variation

Fig-1,

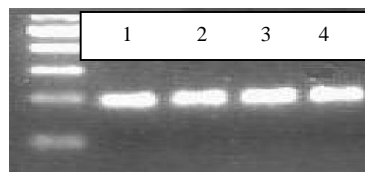
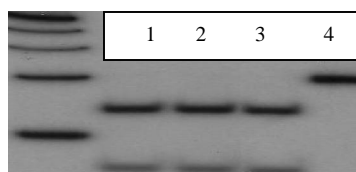


Fig-2, PCR/RPLP



The samples 1-4 were used to have total DNA with this Kit. Use mtDNA Primer to analyze 4370(T>C) Mutation, normal Size is 126 and 66bp (Fig-2) Mutant is 192bp(Fig-1,2). The date Number 4 show the T4370C mtDNA point mutation, that candidate patient might be suffered from Thymidine phosphorylase deficiency.


Kit contents

Catalog Number	DNA Release Buffer		Samples	Storage & Use	Order (\$)
	Name	Volume			
JZ-003	Kit3-B1	2.5 ml	100	To be kept at 5°-29° C. Work well for 1 year from open day.	55.90
	Kit3-B2	2.5 ml			
	Kit3-B3	5.0ml, 10X (to be diluted with 45ml of D.W. become 1 x of Kit3-B3)			

Tools

- Centrifuge with 10,000 – 15,000g set up at room temperature;
- Eppendorff Centrifuger; Speed setting up 10,000-13000 rpm;
- 1.5ml eppendorf tubes, tips, and micro (10-200ul scalar) pipette;

Work Table

Step	Action	Example
Red Blood Cell Lysis		
Step #1	<ul style="list-style-type: none"> • Add 500ul of 1 x of Kit3-B3 to a clean tube. • Place 20-25ul of anti-coagulation whole blood or bone marrow sample to the tube. • Invert the tube 4-6 times. • Centrifuge the tube at 10,000 rpm for 1 min. at RT. 	Ex. 
Step #2	<ul style="list-style-type: none"> • The pellet with white and red cells pieces should be sticking to the bottom of the tube (see example on the right). • Remove supernatant using a micro-pipette from the tube. The white cells is ready to became the DNA lysis 	
DNA Lysis		
Step 3	<ul style="list-style-type: none"> • Add 25ul of Kit3-B1 to the tube, • Flick the tube 4-6 times to dissolve the pellet. .Then, place the tube at RT for 8-10 minutes 	
Step 4	<ul style="list-style-type: none"> • Add 25ul of Kit3-B2 to the tube. flick it 4-6 times again. • The total 50 ul volume DNA extract have been ready for PCR. • Use 1-3ul of DNA extract to run PCR at 20-25 reaction volume. 	
Notes	<ul style="list-style-type: none"> • The DNA looks with the light color, that were from the pieces of red blood cells and id doesn't affect the DNA to works well. • You also use 100ul blood to be used with Kit3-B1,100ul and Kit3-B2, 100ul to have total 200ul DNA 	

- Reference:**
1. Zhu, HJ et al: Ten Minute DNA Kits – A Novel Approach to Obtain DNA Easily in Modern Biological Science. Nature and Science 4(2): 58-70, 2006.
 2. Lee TY et al.; Phylogenetic analysis by RFLP and sequencing of mitochondrial DNA in a Korean Popukation. Arch Oharm Res.,2006 Jan; 29(1) :88-95.
 3. Ren S et al. ;A Simplified Method to Prepare PCR Template DNA for Screening of Transgenic and knockout Mice. Contemp Top Lab Anim Sci.2001: 40(2): 27-30.