COSMO BIO CO., LTD.
Inspiration for Life Science

Instruction manual

CellEase® Blood Cat#BIC-BCR11-00001

1. Introduction

CellEase®Blood is the reagent kit for extraction of genomic DNA from whole blood rapidly and efficiently. You can prepare PCR (Polymerase Chain Reaction) grade template DNA with simple protocol (mix with reagent and test samples and then incubate without any purification steps).

2. Contents

Reagent A : 500µl
Reagent B : 500µl
Reagent C : 500µl
Instruction manual : 1
Volume : 50 reactions
Store at : 4C
Please store the Reagent C at -20C after opening the tube.

3. Principle

The reagent A disrupts the cells and stabilizes the genomic DNA from the samples. The reagent B degrades the cell extracts quickly. You can prepare the DNA from the cells efficiently in short time. Furthermore reagent C inactivates the PCR inhibitors from the cell debris. These reagents don't have any inhibitor for PCR. Thus, you can use the DNA samples with CellEase® Blood directly to PCR. These CellEase® Blood reagents don't include any toxic or harmful chemical compounds.

4. Use

Whole blood, etc.

5. Preparation

Prepare the CellEase® mixture before use. Mix well the reagent A and B (1:1). The mixture is not able to store for long time.

Table 1. Preparation of CellEase® mixture

Number of samples	Reagent A (µl)	Reagent B (µl)
1	10	10
5	50	50
10	100	100
25	250	250
50	500	500

6. Standard protocol (DNA template for PCR)

1) Add 20µl of CellEase® mixture into the 1～3µl of test sample.
2) Incubate the samples at 72C for 6 minutes.
3) Then, continually incubate the samples at 94C for 3 minutes.
4) Add 10 µl of Regent C to the test sample and stir them gently.
5) Take appropriate amount (2～10µl) of samples and use as a template DNA of PCR.

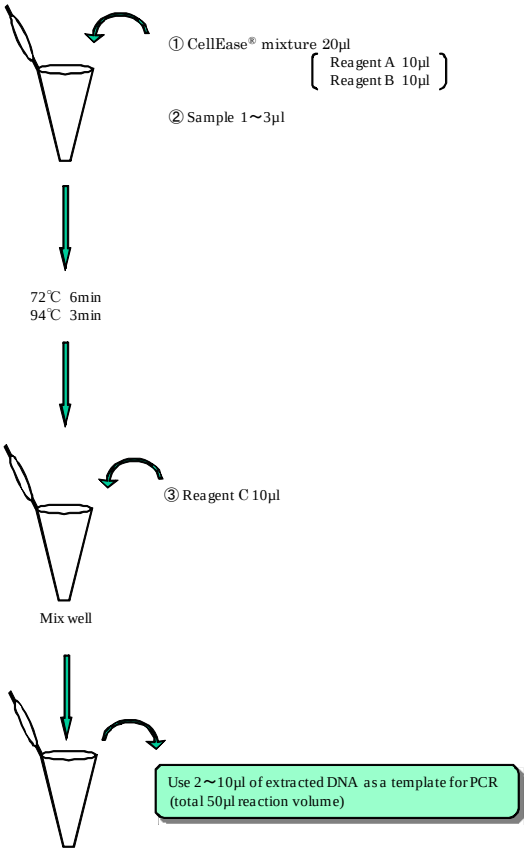
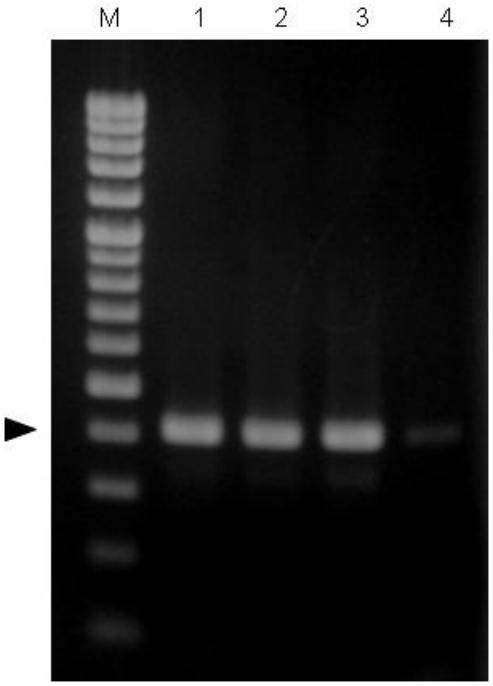


Fig. 1. The Schematic diagram for the extraction of DNA

5. Caution

1) You can adjust the volume of CellEase® mixture as amount of sample volume.
2) If it isn't enough DNA extracts with standard protocol. You can use a little longer incubation time (up to 60min) on the step of 72C.
3) The rate of the mixture of reagent A and B.
4) The DNA extracts should be added less than 20% of the total volume of PCR.
5) The DNA extracts can be kept at 4C for a few days. Alternatively it would be stored at -20C until use.
6) CellEase® Blood is for research use only. Please don't use for the other purpose.

DNA extraction from whole blood



Sample：Whole blood (EDTA)
M Marker (100bp ladder)
1 CellEase Blood
2 CellEase Blood
3 CellEase Blood
4 Extraction by water

Protocol of CellEase Blood

1) Mix the reagent A and B (10ul reagent A, 10ul reagent B).

2) 1 µl of whole blood (EDTA) is transferred to the tube and add 20µl of the mixture and stir them gently..

3) Incubate at 72C for 6 minutes. Then incubate at 94C for 3 minutes.

5) Transfer 5ul of extracts to PCR reaction mixture and amplify the target DNA fragment.

PCR reagent

5.0	ul	Test sample
5.0	ul	×10 buffer（+Mg^{2+}）
5.0	ul	dNTPs
1.0	ul	Forward Primer (10pmol/ul)
1.0	ul	Reverse Primer (10pmol/ul)
0.5	ul	Ex Taq DNA polymerase (5 U/ul, Takara, Japan)

Fill up to 50ul by distilled water

PCR Cycle

94℃	1min	
94℃	30sec	35 Cycles
55℃	30sec	
72℃	60sec	
72℃	4min	

※We can provide application data for the other kind of samples. Please don't hesitate to contact us.

※CellEase® is the registered trademark of Biocosm Inc.

For research use only. Not for clinical diagnosis.

Manufactured by *Biocosm Inc.*

COSMO BIO CO., LTD.
Inspiration for Life Science
TOYO 2CHOME, KOTO-KU, TOKYO, 135-0016, JAPAN
URL: http://www.cosmobio.co.jp/index_e.asp e-mail: export@cosmobio.co.jp
[Outside Japan] Phone : +81-3-5632-9617 [国内連絡先] Phone : +81-3-5632-9610
FAX : +81-3-5632-9618 FAX : +81-3-5632-9619