Red Blood Cell Lysis Solution (10×) (92-01-0105)

[Components]

50 mL Red Blood Cell Lysis Solution (10×)

[Size] For 50 mL of whole blood

[Storage] Store protected from light at 2—8 °C. Do not freeze. The expiration date is indicated on the vial label.

[Background information]

Red Blood Cell Lysis Solution (10×) has been developed for the lysis of red blood cells to ensure optimal lysis of erythrocytes with minimal effect on all cell types obtained from tissue samples or blood. A washing step after erythrocyte lysis is optional, depending on the application. The solution is suitable for lysis of erythrocytes in single-cell suspensions of human, mouse, or rat origin.

[Applications]

- Lysis of erythrocytes in human peripheral blood or bone marrow.
- Lysis of erythrocytes in mouse or rat whole blood.
- Lysis of erythrocytes in single-cell suspensions obtained from different tissues.

[Protocol]

1. Preparation of 1× Red Blood Cell Lysis Solution

1.1Dilute Red Blood Cell Lysis Solution (10×) 1:10 with double-distilled water (ddH_2O), for example, dilute 1 mL of Red Blood Cell Lysis Solution (10×) with 9 mL of ddH_2O.

▲ Note: Do not dilute with deionized water.

1.2 Store the prepared 1× Red Blood Cell Lysis Solution at room temperature. Discard unused solution at the end of the day.

2 Red blood cell lysis with washing step

2.1. Dilute one volume of cell suspension with 10 volumes of 1× Red Blood Cell Lysis Solution.

2.2 When working with blood samples: Vortex for 5 seconds and incubate for 10 minutes at room

temperature.

▲ Note: If the sample is not transparent red after 10 minutes, incubate for another 2 minutes.

When working with tissue samples:

Vortex for 5 seconds and incubate for 2 minutes at room temperature.

2.3. Centrifuge at 300×g for 5 minutes (tubes up to 5 mL) or 10 minutes (15 mL or 50 mL tubes) at room temperature. Aspirate supernatant completely.

2.4. Resuspend the cell pellet in an appropriate buffer and proceed to further applications.

3 Red blood cell lysis without washing step

▲ This procedure is recommended for red blood cell lysis after fluorescent staining of the cell suspension prior to flow cytometric analysis, and if a volume reduction is not required.

3.1 Dilute one volume of cell suspension with 10 volumes of 1× Red Blood Cell Lysis Solution.

3.2 Vortex for 5 seconds and incubate for 10 minutes in the dark at room temperature.

3.3 Store sample on ice and analyse within one hour.