Miltenyi Biotec

MACS® Cell Fixation and RBC Lysis Solution (5×)

100 mL 130-139-306

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1. Description

This product is for research use only.

Components	100 mL MACS Cell Fixation and RBC Lysis Solution (5×)
Capacity	For 50 mL of whole blood.
Product format	MACS Cell Fixation and RBC Lysis Solution (5×) contains formaldehyde and diethylene glycol.
Storage	Store protected from light at +2 to +8 °C. Do not freeze. The expiration date is indicated on the vial label.

1.1 Background information

The MACS Cell Fixation and RBC Lysis Solution (5×) has been developed for one-step lysis of red blood cells (RBC) to ensure optimal lysis of erythrocytes with minimal effect on all cell types obtained from whole blood and fixation of all other cells.

1.2 Applications

- Lysis of erythrocytes and fixation of all other cells in one step.

1.3 Reagent and instrument requirements

- Double-distilled water (ddH_2O) for dilution of MACS Cell Fixation and RBC Lysis Solution (5×)
- Flow cytometry staining/wash buffer: Prepare a solution containing phosphate-buffered saline (PBS), pH 7.2, 0.5% bovine serum albumin (BSA), and 2 mM EDTA by diluting MACS BSA Stock Solution (# 130-091-376) 1:20 with autoMACS® Rinsing Solution (# 130-091-222). Keep buffer cold (+2 to +8 °C). Always use freshly prepared buffer.
- (Optional) Fluorochrome-conjugated antibodies for flow cytometric analysis. For more information about antibodies refer to **www.miltenyibiotec.com/antibodies**.

2. Protocol

2.1 Preparation of 1× MACS Cell Fixation and RBC Lysis Solution

1. Dilute MACS Cell Fixation and RBC Lysis Solution (5×) 1:5 with double-distilled water (ddH_2O), for example, dilute 2 mL of MACS Cell Fixation and RBC Lysis Solution (5×) with 8 mL of ddH_2O.

   ▲ **Note:** Do not dilute with deionized water.

2. Store the prepared 1× MACS Cell Fixation and RBC Lysis Solution at room temperature (+15 to +25 °C). Discard unused solution at the end of the day.

2.2 Staining, fixation, and lysis protocol

1. Transfer 0.1 mL of whole blood into a tube.
2. Stain cell surface antigens with appropriate antibodies according to the manufacturer's recommendations.
3. Add 1 mL of 1× MACS Cell Fixation and RBC Lysis Solution to the sample.
4. Mix and incubate cell suspension at room temperature (+15 to +25 °C) for 30 minutes.
5. Centrifuge cell suspension at 300 × g for 5 minutes and aspirate supernatant completely.
6. Resuspend cell pellet in a suitable amount of flow cytometry staining/wash buffer for flow cytometric analysis. Store at +2 to +8 °C in the dark until analysis. Mix well before analysis.

   ▲ **Note:** Do not use propidium iodide (PI) or 7-AAD staining.

   ▲ **Note:** Staining of cell surface antigens can also be performed after the fixation and lysis protocol. However, the compatibility of each fluorochrome-conjugated antibody need then be verified independently.

Refer to **www.miltenyibiotec.com** for all data sheets and protocols. Miltenyi Biotec provides technical support worldwide. Visit www.miltenyibiotec.com for local Miltenyi Biotec Technical Support contact information.

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