ReadiUse™ RBC Lysis Buffer

Catalog number: 37014, 37015
Unit size: 50 mL, 100 mL

Component	Storage	Amount (Cat No. 37014)	Amount (Cat No. 37015)
ReadiUse™ RBC Lysis Buffer	Refrigerated (2-8 °C), Minimize light exposure	50 mL	100 mL

OVERVIEW

ReadiUse™ RBC Lysis Buffer is a ready-to-use 1X solution optimized for the selective lysis of red blood cells (RBCs) in single-cell suspensions while preserving the viability and functionality of leukocytes. This buffer is specifically designed for processing mouse hematopoietic tissues, such as spleen, and human peripheral blood samples, making it suitable for a wide range of immunology, hematology, and flow cytometry applications.

The formulation contains ammonium chloride, which induces osmotic lysis of erythrocytes while exerting minimal effects on lymphocytes and other nucleated white blood cells when used as recommended. However, nucleated red blood cells are not effectively lysed by ammonium chloride and may require alternative or additional treatment.

ReadiUse™ RBC Lysis Buffer is supplied as a pre-diluted, ready-to-use solution, eliminating the need for preparation steps and ensuring reproducibility across experiments. This reagent has been rigorously tested to provide efficient RBC removal with minimal leukocyte loss, making it an ideal choice for downstream applications requiring high-purity immune cell populations.

SAMPLE EXPERIMENTAL PROTOCOL

Lysis of RBCs in Human Peripheral Blood:

1. Warm the ReadiUse™ RBC Lysis Buffer to room temperature prior to use.
2. Take upto 100 µL of whole blood and add 2 mL of ReadiUse™ RBC Lysis Buffer.
3. Vortex this tube gently.
4. Incubate at room temperature (in a dark place) for 10-15 minutes.
5. Centrifuge at 350g for 5 mins. Discard the supernatant without disturbing the pellet.
6. Wash the pellet by resuspending it in appropriate buffer of your choice, and re-centrifuge.
7. Resuspend the pellet and proceed further with experiment.

Lysis of RBCs in Spleen:

1. Harvest the spleen and prepare a single cell suspension.
2. Centrifuge at 350g for 5 mins to pellet the cells, discard the supernatant.
3. Resuspend the pellet in 5mL of ReadiUse™ RBC Lysis Buffer.
4. Incubate on ice for 5 minutes with intermittent tapping/shaking.
5. Dilute this reaction mixture by adding 25mL of 1X PBS. **Note:** This volume can be adjusted based on need (20-30mL).
6. Centrifuge at 350g for 5 mins. Discard the supernatant without disturbing the pellet.
7. Wash the pellet by resuspending it in appropriate buffer of your choice, and re-centrifuge.
8. Resuspend the pellet and proceed further with experiment.

DISCLAIMER

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