Red Blood Cell Lysis Buffer

Catalogue No.:abx090623

Red Blood Cell Lysis Buffer is formulated for lysing human erythrocytes in single-cell suspensions of peripheral blood and mouse hematopoietic tissues such as spleen. This buffer does not cause observable damage to the lymphocytes or other cells with nucleus during the lysis of erythrocytes. Mouse thymus and lymph gland cells do not require this lysis buffer. After sterile filtration, the obtained blood, tissues or cells can be used for primary culture, cell fusion, nucleic acid or protein extraction and various conventional assays. This buffer contains ammonium chloride.

Tested Applications: WB

Storage: Store at room temperature for up to 3 months or at 4 °C for up to one year.

Note: THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC, THERAPEUTIC OR COSMETIC PROCEDURES. NOT FOR HUMAN OR ANIMAL CONSUMPTION.

Abbexa LTD, Cambridge, UK · Phone: +44 (0) 1223 755950 · Fax: +44 (0) 1223 755951
Abbexa LLC, Houston, TX USA · Phone: +1 832 327 7413
Abbexa BV, Leiden, NL
Website: www.abbexa.com · Email: info@abbexa.com

Directions for use:

Tissue and Cell samples

1. For tissue samples, digest and suspend using an appropriate method. For mouse spleen cells, collect and prepare to a single-cell suspension.
2. Pellet the cells by centrifugation at 400-500 × g at 4 °C. Discard the supernatant.
3. For every 1 ml of cell pellet, add 3-5 ml of Add Red Blood Cell Lysis Buffer. Mix thoroughly by gently pipetting up and down, then leave on ice for 4-5 minutes. During lysis, shake gently at room temperature or at 4 °C to encourage lysis of erythrocytes.
4. Centrifuge at 400-500 × g at 4 °C for 5 minutes. Discard the red-coloured supernatant.
5. Repeat Steps 3 and 4 if the erythrocyte lysis is incomplete. Usually, a very small volume of erythrocytes does not affect detection.
6. Resuspend the pellet in PBS, HBSS, normal saline or serum-free medium and wash 1-2 times by centrifuging at 400-500 × g at 4 °C for 2-3 minutes and discarding the supernatant. The volume of the wash buffer should be at least 5 times greater than the cell pellet volume.
7. Perform a cell count after resuspending the pellet.

Blood samples

1. Centrifuge fresh anticoagulated blood at 400-500 × g at 4 °C. Discard the supernatant.
2. For every 1 ml of cell pellet, add 6-10 ml of Add Red Blood Cell Lysis Buffer. Mix thoroughly by gently pipetting up and down, then leave on ice for 4-5 minutes. During lysis, shake gently at room temperature or at 4 °C to encourage lysis of erythrocytes.
3. Centrifuge at 400-500 × g at 4 °C for 5 minutes. Discard the red-coloured supernatant.
4. Repeat Steps 2 and 3 if the erythrocyte lysis is incomplete. Usually, a very small volume of erythrocytes does not affect detection.
5. Resuspend the pellet in PBS, HBSS, normal saline or serum-free medium and wash 1-2 times by centrifuging at 400-500 × g at 4 °C for 2-3 minutes and discarding the supernatant. The volume of the wash buffer should be at least 5 times greater than the cell pellet volume.
6. Perform a cell count after resuspending the pellet.

Note: For very small blood sample volumes, skip Step 1 and add 10 ml of Red Cell Lysis Buffer for every 1 ml of cell pellet in Step 2. For mouse blood samples, it is sufficient to lyse for 4-5 minutes. For human peripheral blood, the lysis time can be increased to 10 minutes (do not exceed 15 minutes). During lysis, shake occasionally to encourage erythrocyte lysis.

Abbexa LTD, Cambridge, UK · Phone: +44 (0) 1223 755950 · Fax: +44 (0) 1223 755951
Abbexa LLC, Houston, TX USA · Phone: +1 832 327 7413
Abbexa BV, Leiden, NL
Website: www.abbexa.com · Email: info@abbexa.com