ab204733 10x Red Blood Cell (RBC) Lysis Buffer

For the lysis of red blood cells.

View kit datasheet: www.abcam.com/ab204733
(use www.abcam.cn/ab204733 for China, or www.abcam.co.jp/ab204733 for Japan)

This product is for research use only and is not intended for diagnostic use.

Background

10x Red Blood Cell (RBC) Lysis Buffer (ab204733) provides a quick and efficient method of lysing red blood cells. 10x Red Blood Cell (RBC) Lysis Buffer uses ammonium chloride method to lyse red blood cells without affecting leukocytes, normal tissue, or tumor cells.

Human whole blood is composed of 45% red blood cells. Without the removal of red blood cells, it is difficult to analyze the phenotype and function of leukocytes in whole blood. Haemoglobin and other red blood cell contents can also interfere with several chemical assays.

Storage and stability

Store product at room temperature upon receipt. Product has a storage time of 1 year from receipt.

Refer to list of materials supplied for storage conditions of individual components. Observe the storage conditions for individual prepared components in the Materials Supplied section.

Aliquot components in working volumes before storing at the recommended temperature.

Materials supplied

Item	Amount	Storage Condition (Before Preparation)	Storage Condition (After Preparation)
10X Red Blood Cell (RBC) Lysis Buffer	100 mL	RT	RT

Materials required, not supplied

These materials are not included in the kit, but will be required to successfully perform this assay:

- MilliQ water or other type of double distilled water (ddH_2O)
- Microcentrifuge
- Pipettes and pipette tips

Reagent preparation

10x Red Blood Cell (RBC) Lysis Buffer:

To prepare the 1X Red Blood Cell (RBC) Lysis Buffer, dilute 10 mL of 10x Red Blood Cell (RBC) Lysis Buffer with 90 mL of dH_2O.

If cells present in the sample are going to be cultured after RBC lysis, use sterile water.

Assay procedure

Always take precautions when handing human samples.

RBC lysis from whole blood:

1. Add 20 volumes of 1X RBC Lysis buffer to 1 volume of whole blood.
2. Incubate for 5 -10 minutes at room temperature.
3. Centrifuge at 400 x *g* for 5 minutes. Remove the supernatant carefully.
4. Re-suspend the cell pellet in 1 ml appropriate buffer or PBS. Cells are ready for further analysis.

NOTE: *Repeat the above lysis protocol if necessary needed to remove all traces of red blood cells*

RBC lysis from tissue or solid tumor samples:

1. Dissociate tissue or solid tumor samples into single cells.
2. Centrifuge cells at 400 x *g* for 5 minutes at room temperature. Remove the supernatant carefully.
3. Resuspend cell pellet in 1X RBC Lysis Buffer.
   - Sample with < 1 x 10^8 cells = use 5 mL 1X RBC Lysis buffer
   - Samples with > 1 x 10^8 cells = use 10 mL 1X RBC Lysis buffer

4. Incubate for 5-10 minutes at room temperature.
5. Centrifuge at 400 x *g* for 5 minutes at room temperature. Remove the supernatant carefully.
6. Re-suspend the cell pellet in appropriate buffer. Cells are ready for further analysis.

Typical Data

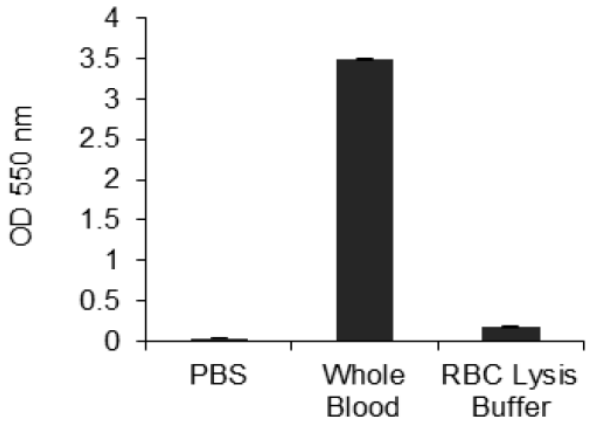

Figure 1. Human whole blood (100 µL) was added to 1X Red Blood Cell (RBC) Lysis Buffer (2 mL) and incubated for 8 minutes. at room temperature After incubation, cells were centrifuged and resuspended in 1 mL of PBS. Absorbance (550 nm) was measured by Spectrophotometer. Removal of red blood cells results in reduced absorbance in RBC Lysis Buffer compared to whole blood sample

Technical Support

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