

10X Red Blood Cell (RBC) Lysis Buffer

CATALOG #: 5831-100

AMOUNT: 100 ml

STORAGE: Store at room temperature (RT). Stable for 1 year.

APPLICATIONS: Lysis of red blood cells in murine or human whole blood.
Lysis of red blood cells in tissue or tumor samples.

DESCRIPTION:

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. Hemoglobin and other red blood cell contents can also interfere with several chemical assays. BioVision's Red Blood Cell (RBC) Lysis Buffer uses ammonium chloride method to lyse red blood cells without affecting leukocytes, normal tissue, or tumor cells.

Reagent Preparation

To prepare 1X Red Blood Cell (RBC) Lysis Buffer, dilute 10 ml of 10X Red Blood Cell (RBC) Lysis Buffer with 90 ml of deionized H₂O.

Note: Use sterile water if cells are going to be cultured.

Protocol for using 1X Red Blood Cell (RBC) Lysis Buffer

1. Red Blood Cell lysis in whole blood: Add 1 volume of whole blood to 20 volumes of 1X Red Blood Cell (RBC) Lysis Buffer. Incubate for 5 -10 minutes at RT. Centrifuge at 400 x g for 5 min. and remove the supernatant carefully. Resuspend the cell pellet in appropriate buffer. Cells are ready for further analysis.

Note:

- Always take precautions when handling human samples.
- Repeat the above lysis protocol as needed to remove all traces of RBC.

2. Red Blood Cell Lysis in tissue or tumor samples: After initial dissociation of tissue or tumor into single cells, centrifuge cells at 400 x g for 5 min. at RT. Remove the supernatant. For less than 1X10⁸ cells, resuspend the cell pellet in 5 ml 1X Red Blood Cell (RBC) Lysis Buffer. Incubate for 5-10 min. at RT. Centrifuge at 400 x g for 5 min. at RT and remove the supernatant carefully. Resuspend the cell pellet in appropriate buffer. Cells are ready for further analysis.

Note: For more than 1X10⁸ cells, resuspend the cell pellet in 10 ml of 1X Red Blood Cell (RBC) Lysis Buffer.

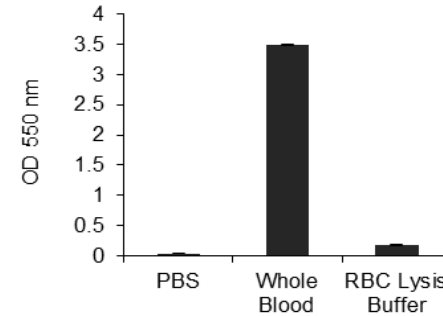


Figure 1: Human whole blood (100 µl) was added to 1X Red Blood Cell (RBC) Lysis Buffer (2 ml) and incubated for ~8 min. at RT. After incubation, cells were centrifuged and resuspended in 1 ml of PBS. Absorbance (550nm) was measured by Spectrophotometer. Removal of red blood cells results in reduced absorbance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

RELATED PRODUCTS:

Cell Lysis Buffer (1067)	Phosphate Buffered Saline (PBS) (2113)
PBS Tablets (2129)	Catalase, Human Erythrocytes (4712)
Whole Blood DNA Purification Kit (K2804)	Human Serum Albumin (4016)
Albumin, Human Plasma (7546)	Hemopexin, Human Plasma (7544)
Haptoglobin, Human Plasma (7535)	Preadipocyte Isolation Kit (K583-5)

FOR RESEARCH USE ONLY! Not to be used on humans.