

# EXCELLYSE Live

Cat.No. ED7068

## Description

The EXCELLYSE Live lysing solution is intended for red blood cell lysis following antibody staining of leukocytes in human peripheral whole blood.

Leukocyte analysis and detection in peripheral blood requires elimination of interfering cells, mainly erythrocytes. So far, the Ficoll density gradient method was used to separate leukocytes from whole blood. This method is rather time consuming and may lead to a loss of certain cell subsets. Direct blood sample staining followed by red blood cell lysis therefore takes place in clinical laboratories as a fast and easy method for whole blood flow cytometry analysis. The EXCELLYSE Live lysing solution allows for red blood cell lysis and is free of fixation component keeping leukocyte membrane intact and the cells viable. This solution is appropriate for use when viable leukocytes are required after red blood cell lysis. The lysing solution is optimized for use with EXBIO single colour monoclonal antibodies and KOMBITEST reagents and may be used in both lyse/wash and lyse/no wash protocol.

## Specification

EXCELLYSE Live (10x concentrated solution). Dilute with deionized water prior use (1 volume of concentrated solution and 9 volumes of deionized water). Always prepare a fresh. The content of the vial is sufficient for 500 tests.

## Reagent provided

ED7068 EXCELLYSE Live, 1x 100 ml

## Materials required but not provided

Material necessary for collection of peripheral blood  
Suitable 5ml test tubes for blood staining (e.g. 12 x 75 mm)  
Phosphate buffered saline (PBS)  
Deionized water  
Appropriate fluorescent-dye-labeled primary/secondary antibody

## Equipment required

Automatic pipettes with disposable tips  
Vortex mixer  
Centrifuge  
Flow cytometer

## Storage and handling

Store the 10x concentrated EXCELLYSE Live at 2-8°C. Freshly prepared solution (1x concentrated) is stable for 1 day when stored at room temperature.

## Warnings and precautions

- Intended for research use only.
  - Do not use reagent after expiration date.
  - Avoid contamination of the reagent.
  - Do not use if any discoloration or precipitation occurs.
  - Do not freeze.
  - Any non-performance of lysing protocol may produce false results
  - Human blood samples are considered as potentially infectious and must be handled with care.
  - The flow cytometer should be calibrated on a routine basis using fluorescent microbeads to ensure stable sensitivity of detectors.
  - Flow cytometer may produce false results if the device has not been regularly calibrated and maintained appropriately.
  - Data may be incorrectly interpreted if fluorescent signals were compensated wrongly or if gates were positioned inaccurately.
  - Red blood cells from some patients may be resistant to lysis using lysing solutions.
  - Data may be incorrectly interpreted if fluorescent signals were compensated wrongly or if gates were positioned inaccurately.
  - Blood samples from some patients may exhibit abnormal values of positive cells.
  - The reagent contains ammonium chloride which may produce a characteristic non-pleasant odor of ammonia when opened after a long-term storage.
- H-phrases  
H302: Harmful if swallowed.  
H319: Causes serious eye irritation.

## Application

### Specimen

The specimen shall be a human, peripheral whole blood. Blood must be collected into a tube containing an anticoagulant (e.g. Heparin, EDTA). Collected blood sample has to be retained in collection tube prior to staining and lysing.

### Lyse/no wash lysing protocol

- Collect peripheral blood in a sterile tube with an anticoagulant (e.g. Heparin, EDTA).
- Follow instructions for the whole blood antibody staining.
- Add 2.0 ml of the diluted lysing solution per 100 µl of whole blood. Mix the tube with a vortex mixer.
- Incubate for 5-10 minutes, until the blurry blood sample solution becomes clear.
- Analyze the sample immediately using flow cytometer or store the sample at 2-8°C in the dark and analyze within 24 hours. See figures 1 and 2 for example data.

Fig. 1: Peripheral blood leukocytes dot-plot from lysed/non-washed whole blood.

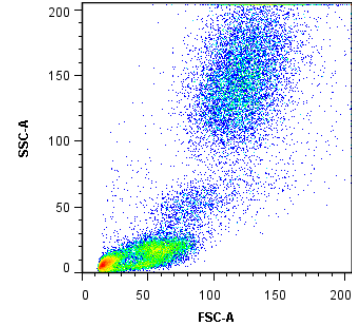
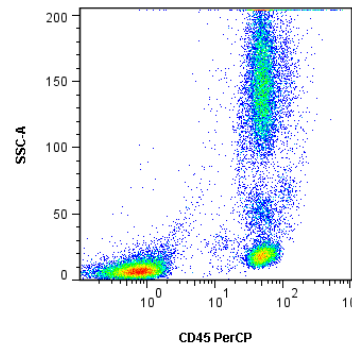


Fig. 2: Staining profile of CD45+ leukocytes in lysed/non-washed whole blood stained with anti-CD45 antibody.



### Lyse/wash lysing protocol

- Collect peripheral blood in a sterile tube with an anticoagulant (e.g. Heparin, EDTA).
- Follow manufacturer's instructions for the whole blood antibody staining.
- Add 2.0 ml of the diluted lysing solution per 100 µl of whole blood. Mix the tube with a vortex mixer.
- Incubate for 5-10 minutes, until the blurry blood sample solution becomes clear.
- Centrifuge the tube for 5 minutes at 300xg.
- Remove supernatant and resuspend the pellet with 0.2 - 0.5 ml of PBS.
- Analyze the sample immediately using flow cytometer or store the sample at 2-8°C in the dark and analyze within 2 hours.
- Fix the cells if samples are required to be stored for more than 2 hours. Non-fixed cells may change their size. Note that cells lose their viability after fixation. See figures 3 and 4 for example data.

Fig. 3: Peripheral blood leukocytes dot-plot from lysed/washed whole blood.

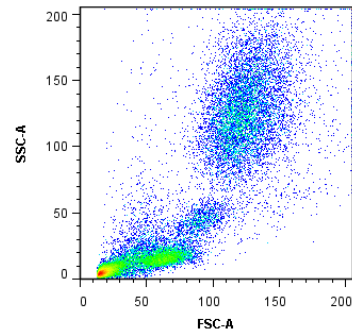
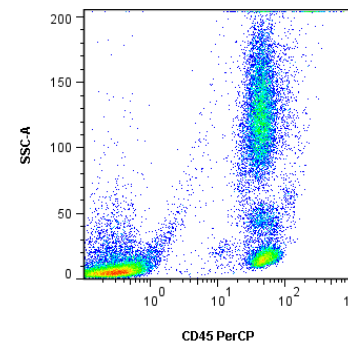


Fig. 4: Staining profile of CD45+ leukocytes in lysed/washed whole blood stained with anti-CD45 antibody.



## References

n/a

## Manufacturer

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## Trademarks

n/a

## Revision History

- Version 1, ED7068\_TDS\_v1  
Initial Release
- Version 2, ED7068\_TDS\_v2  
Reagent provided: "Product packaging versions 100 ml and 30 ml introduced in the TDS."
- Version 3, ED7068\_TDS\_v3  
Manufacturer postal code changed from 25242 to 25250.
- Version 4, ED7068\_TDS\_v4  
The company logo changed. TDS layout changed. Minor changes in text phrasing. All limitations and warnings are presented together in the section Warnings and precautions.

## Symbols

- REF** Catalog number
- LOT** Batch code
- Use-by date
- Temperature limits
- Consult instructions for use
- Manufacturer
- For Research use only.
- RUO** Not for use in diagnostic or therapeutic procedures.



## **EXCELLYSE Live**

**100 ml | Cat.No. ED7068**

**For Research use only.**

**Not for use in diagnostic or therapeutic procedures.**

### Technical Data Sheet

Version ED7068\_TDS\_v4\_EN

Date of Issue: 23-03-2021

EN

The product is intended For Research Use Only. Diagnostic or therapeutic applications are strictly forbidden.

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