

# Phytohemagglutinin (PHA)

Cat.No. ED7634

## Description

Single-use flow cytometry tube for *in vitro* stimulation of human whole blood

## Specification

Active ingredient *Phaseolus vulgaris* lectin  
Content 0.010 mg

## Reagent provided

Single-use tube with dual position cap containing a mixture of vacuum dried *Phaseolus vulgaris* lectin with protective excipients. The mixture was sterilized by filtration prior to vacuum drying.

## Storage and handling

Store at room temperature (20 - 30 °C).

The product is shipped within a protective foil bag. Each bag contains 5 tubes. Do not open the bag until the immediate use. Reseal the bag with remaining tubes after removing a tube. Use the tubes within a month after the first opening of the foil bag.

Uncap tubes aseptically in a tissue culture hood.

Shelf-life printed on product labels represents the shelf-life of the unopened product.

## Warnings and precautions

The product is intended for a single use only. Dispose the tubes after use as a potentially infectious material.

Wear gloves and protective clothing.

The tubes are closed with dual position caps. Use the ventilation position during cell culture to allow CO<sub>2</sub> exchange between the atmosphere and the culture medium.

## Application

### Blast transformation of human lymphocytes

Open the bag and remove the necessary number of tubes.

Bring the tubes to the cell culture hood and place them in a suitable rack. Carefully remove caps.

Add 0.5 ml of cell culture medium (e.g. X-VIVO 10 with Gentamycin and Phenol Red, Lonza Cat. No. 04-380Q).

Add 50 µl of specimen (human blood anticoagulated with heparin) and vortex to mix.

Cover the tubes with caps (ventilation position).

Incubate for 3 days at 37 °C in atmosphere with 5 % CO<sub>2</sub>.

Analyze lymphocyte proliferation (e.g. T-cell BlastFlowEx Kit, EXBIO Cat. No. ED7642).

Figure 1. Dual position cap

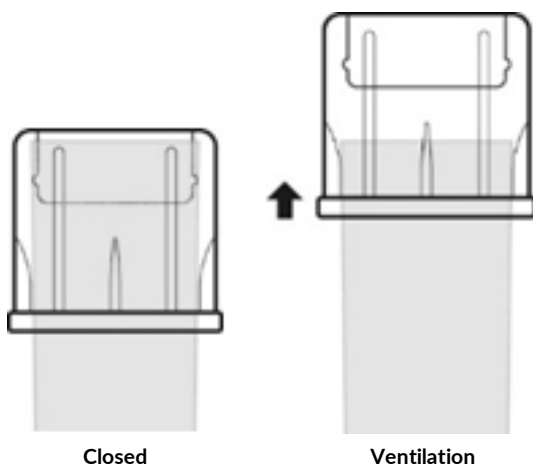
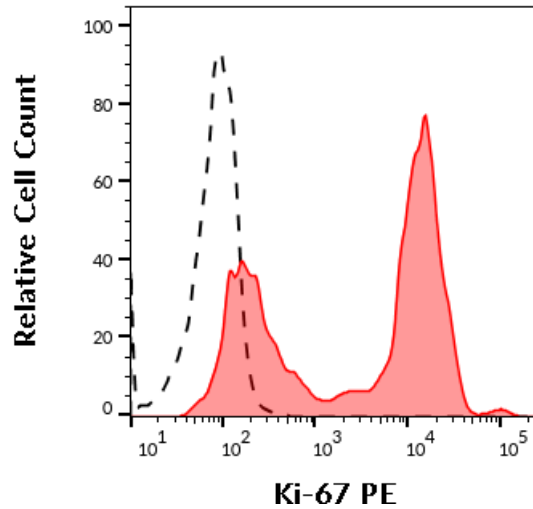


Figure 2. Ki-67 expression in CD3<sup>+</sup> lymphocytes after 3 days of stimulation with Phytohemagglutinin (PHA)

Whole blood was stimulated for 3 days at 37 °C and the response was analyzed with T-cell BlastFlowEx Kit (EXBIO Cat. No. ED7642). The graph shows distribution of fluorescence in PE detector, the fluorescence intensity corresponds to Ki-67 expression in CD3<sup>+</sup> lymphocytes (two peaks in PHA stimulated sample - red, single negative peak in negative control - black dashed line).



## References

Unpublished

## Manufacturer

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## Revision History

- Version 1, ED7634\_TDS\_v1  
Initial Release
- Version 2, ED7634\_TDS\_v2  
Product description change from "lyophilized" to "dried" stimulation reagent. Stimulation procedure change, the first step to spin down the material to the bottom of the tube omitted, it was no longer necessary.
- Version 3, ED7634\_TDS\_v3  
Product description change, the adjective "dried" omitted from the description.
- Version 4, ED7634\_TDS\_v4  
Company logo design change, TDS layout change.
- Version 5, ED7634\_TDS\_v5  
Figures size change. Figure 2 change, negative control line added.
- Version 6, ED7634\_TDS\_v6  
Product Use Limitation text was refined.

## Symbols

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



## Phytohemagglutinin (PHA)

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### Technical Data Sheet

Version ED7634\_TDS\_v6\_EN

Date of Issue: 28-02-2020

EN

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

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