

# CD3/CD28 Stimulation Reagent

Cat.No. ED7673

## Description

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

## Specification

Active ingredient	anti-CD3 monoclonal antibody (MEM-57) anti-CD28 monoclonal antibody (CD28.2)
Content	0.5 µg anti-CD3 0.5 µg anti-CD28

## Reagent provided

Single-use tube with dual position cap containing a mixture of vacuum dried monoclonal antibodies and 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 BustoFlowEx Kit, EXBIO Cat. No. ED7642).

Figure 1. Dual position cap

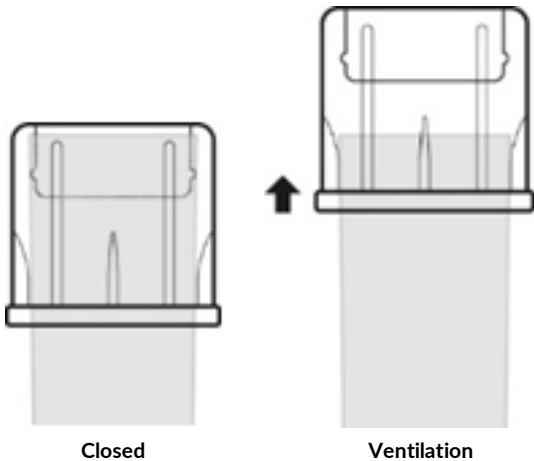
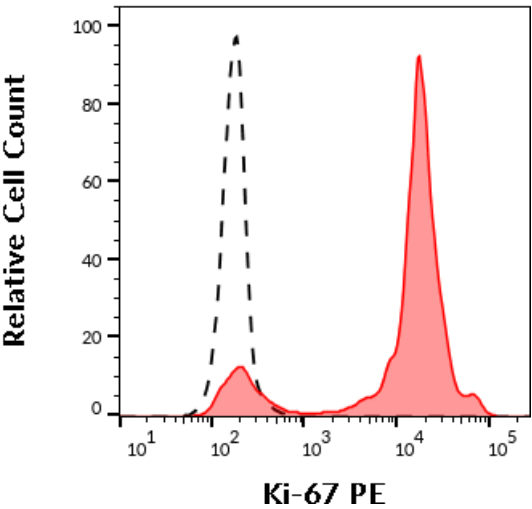


Figure 2. Ki-67 expression in CD3<sup>+</sup> lymphocytes after 3 days of stimulation with CD3/CD28 Stimulation Reagent

Whole blood was stimulated for 3 days at 37 °C and the response was analyzed with T-cell BustoFlowEx 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 CD3/CD28 stimulated sample - red, single negative peak in negative control - black dashed line).



## References

Unpublished

## Manufacturer

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## Revision History

- Version 1, ED7636\_TDS\_v1  
Initial Release
- Version 2, ED7636\_TDS\_v2  
Figures size change. Figure 2 change, negative control line added.
- Version 3, ED7636\_TDS\_v3  
Product Use Limitation text was refined.

## Symbols

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



## CD3/CD28 Stimulation Reagent

**1 test** | Cat.No. **ED7673**

**For Research use only.**

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

### Technical Data Sheet

Version ED7673\_TDS\_v3\_EN

Date of Issue: 02-03-2020

EN

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

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