

## Technical Data Sheet

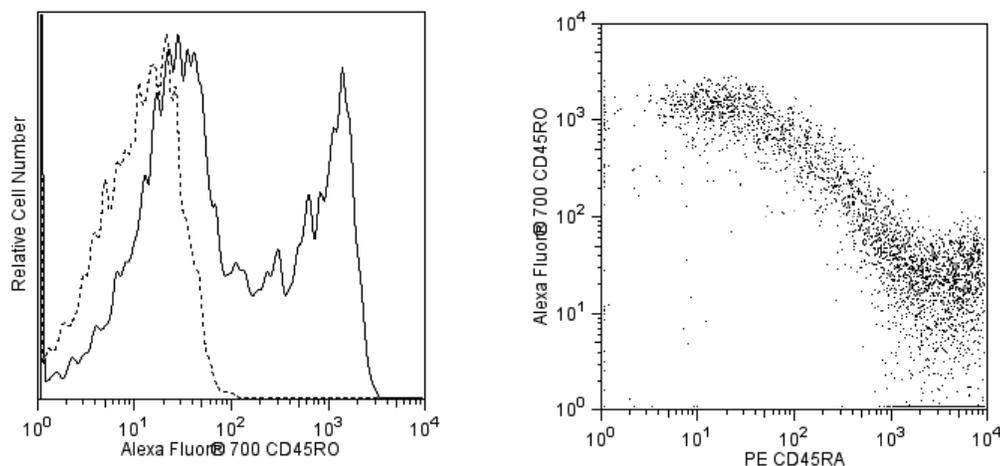
## Alexa Fluor® 700 Mouse Anti-Human CD45RO

## Product Information

<b>Material Number:</b>	561136
<b>Alternate Name:</b>	CD45R; PTPRC; LCA; Leukocyte common antigen; GP180; LY5; T200
<b>Size:</b>	50 tests
<b>Vol. per Test:</b>	5 µl
<b>Clone:</b>	UCHL1
<b>Immunogen:</b>	Human IL-2-dependent T-cell line
<b>Isotype:</b>	Mouse (BALB/c) IgG2a, κ
<b>Reactivity:</b>	QC Testing: Human
<b>Workshop:</b>	IV N31
<b>Storage Buffer:</b>	Aqueous buffered solution containing protein stabilizer and ≤0.09% sodium azide.

## Description

The UCHL1 monoclonal antibody specifically reacts with the 180 kDa isoform of CD45 (aka, the Leukocyte Common Antigen). CD45RO is a type I transmembrane glycoprotein that has cytoplasmic protein tyrosine phosphatase activity and functions in signal transduction pathways. This CD45 isoform does not include amino acid sequences encoded by the variable CD45 exons A, B, or C. CD45RO is expressed on most thymocytes, activated T cells, memory T cells, granulocytes and monocytes, but only on a proportion of resting T cells. CD45RO and CD45RA antibodies seem to define complementary, predominantly non-overlapping, populations in resting peripheral T cells, demonstrating heterogeneity within the CD8 and CD4 subpopulations. CD45RO binds to CD22.

**Flow cytometric analysis of CD45RO expression on human peripheral blood lymphocytes.**

*Left Panel: Whole blood was stained with Alexa Fluor® 700 Mouse Anti-Human CD45RO antibody (Cat. No. 561136; solid line histogram), or with a Alexa Fluor® 700 Mouse IgG2a, κ Isotype Control (Cat. No. 557880; dashed line histogram).*

*Right Panel: Whole blood was stained with Alexa Fluor® 700 Mouse Anti-Human CD45RO antibody (Cat. No. 561136) in conjunction with a PE Mouse Anti-Human CD45RA antibody (Cat. No. 555489).*

*Erythrocytes were lysed with BD PharmLyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms and dot plot were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.*

## Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated to Alexa Fluor® 700 under optimum conditions, and unreacted Alexa Fluor® 700 was removed.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

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## Application Notes

### Application

Flow cytometry

Routinely Tested

### Suggested Companion Products

Catalog Number	Name	Size	Clone
557880	Alexa Fluor® 700 Mouse IgG2a, κ Isotype Control	0.1 mg	G155-178
555489	PE Mouse Anti-Human CD45RA	100 tests	HI100
555899	Lysing Buffer	100 ml	(none)
554656	Stain Buffer (FBS)	500 ml	(none)

### Product Notices

1. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.
2. Alexa Fluor® 700 has an adsorption maximum of ~700nm and a peak fluorescence emission of ~720nm. Before staining cells with this reagent, please confirm that your flow cytometer is capable of exciting the fluorochrome and discriminating the resulting fluorescence.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).
4. The Alexa Fluor®, Pacific Blue™, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue™ dye, and Cascade Blue® dye are covered by pending and issued patents.
5. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
6. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
7. An isotype control should be used at the same concentration as the antibody of interest.
8. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use  $1 \times 10^6$  cells in a 100-µl experimental sample (a test).

### References

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