

## Product datasheet

### violetFluor™ 450 Anti-CD45 antibody [HI30] ab253085

1 Image

#### Overview

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<b>Product name</b>	violetFluor™ 450 Anti-CD45 antibody [HI30]
<b>Description</b>	violetFluor™ 450 Mouse monoclonal [HI30] to CD45
<b>Host species</b>	Mouse
<b>Conjugation</b>	violetFluor™ 450. Ex: 405nm, Em: 450nm
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	The details of the immunogen for this antibody are not available.
<b>Positive control</b>	Flow Cyt: Human peripheral blood lymphocytes.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C. Do Not Freeze. Store In the Dark.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.09% Sodium azide Constituents: 0.16% Sodium phosphate, 0.87% Sodium chloride, 0.1% Gelatin
<b>Purity</b>	Affinity purified
<b>Purification notes</b>	Purified from tissue culture supernatant.
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	HI30
<b>Isotype</b>	IgG1
<b>Light chain type</b>	kappa

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab253085 in the following tested applications.

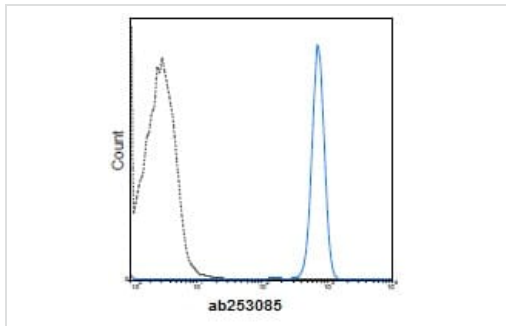
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		<p>Use at an assay dependent concentration.</p> <p>The antibody has been diluted for use at 5 µL per test, defined as the amount of antibody that will stain a cell sample in a final volume of approximately 100 µL.</p> <p>The number of cells within a sample should be determined empirically, but typically ranges between 1x10e5 to 1x10e8 cells.</p>

## Target

<b>Function</b>	Protein tyrosine-protein phosphatase required for T-cell activation through the antigen receptor. Acts as a positive regulator of T-cell coactivation upon binding to DPP4. The first PTPase domain has enzymatic activity, while the second one seems to affect the substrate specificity of the first one. Upon T-cell activation, recruits and dephosphorylates SKAP1 and FYN.
<b>Involvement in disease</b>	Defects in PTPRC are a cause of severe combined immunodeficiency autosomal recessive T-cell-negative/B-cell-positive/NK-cell-positive (T(-)B(+)NK(+)) SCID [MIM:608971]. A form of severe combined immunodeficiency (SCID), a genetically and clinically heterogeneous group of rare congenital disorders characterized by impairment of both humoral and cell-mediated immunity, leukopenia, and low or absent antibody levels. Patients present in infancy recurrent, persistent infections by opportunistic organisms. The common characteristic of all types of SCID is absence of T-cell-mediated cellular immunity due to a defect in T-cell development. Genetic variations in PTPRC are involved in multiple sclerosis susceptibility (MS) [MIM:126200]. MS is a neurodegenerative disorder characterized by the gradual accumulation of focal plaques of demyelination particularly in the periventricular areas of the brain. Peripheral nerves are not affected. Onset usually in third or fourth decade with intermittent progression over an extended period. The cause is still uncertain.
<b>Sequence similarities</b>	Belongs to the protein-tyrosine phosphatase family. Receptor class 1/6 subfamily. Contains 2 fibronectin type-III domains. Contains 2 tyrosine-protein phosphatase domains.
<b>Domain</b>	The first PTPase domain interacts with SKAP1.
<b>Post-translational modifications</b>	Heavily N- and O-glycosylated.
<b>Cellular localization</b>	Membrane. Membrane raft. Colocalized with DPP4 in membrane rafts.

## Images



Flow Cytometry - Anti-CD45 antibody [HI30]  
(ab253085)

Human peripheral blood lymphocytes were stained with 5  $\mu$ L (1.0  $\mu$ g) ab253085 (solid blue line) or 1.0  $\mu$ g violetFluor™ 450 Mouse IgG1 isotype control (dashed black line).

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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- We provide support in Chinese, English, French, German, Japanese and Spanish
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If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

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