

Product datasheet

Anti-CD45 antibody [I3/2.3] ab25386

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Overview

Product name	Anti-CD45 antibody [I3/2.3]
Description	Rat monoclonal [I3/2.3] to CD45
Host species	Rat
Tested applications	Suitable for: Flow Cyt
Species reactivity	Reacts with: Mouse
Immunogen	Tissue, cells or virus corresponding to CD45. T1M1 (Thy-1—c) cells
Epitope	ab25386 recognizes a framework epitope present on all CD45 isoforms.
Positive control	BALB/c spleen cells.
General notes	<p>This product was changed from ascites to tissue culture supernatant on (28 March 2019). Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team.</p> <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&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 8.20 Constituent: 100% Borate buffered saline
Purity	Tissue culture supernatant
Clonality	Monoclonal
Clone number	I3/2.3
Isotype	IgG2b

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab25386 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		Use at an assay dependent concentration. See Haidl et al. ab18536 - Rat monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

Target

Function

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.

Involvement in disease

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.

Sequence similarities

Belongs to the protein-tyrosine phosphatase family. Receptor class 1/6 subfamily.
Contains 2 fibronectin type-III domains.
Contains 2 tyrosine-protein phosphatase domains.

Domain

The first PTPase domain interacts with SKAP1.

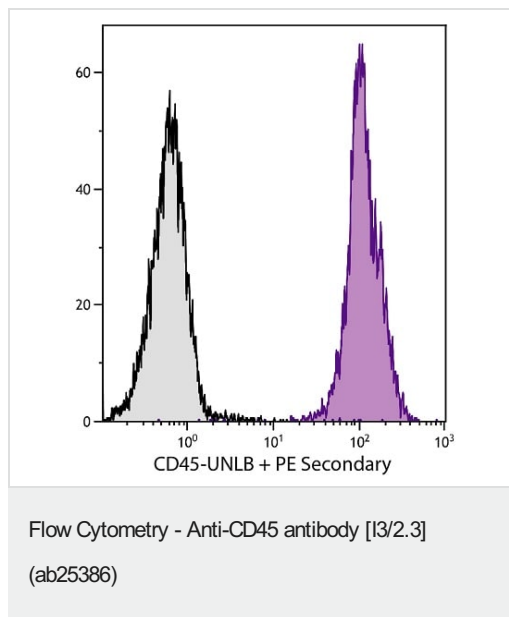
Post-translational modifications

Heavily N- and O-glycosylated.

Cellular localization

Membrane. Membrane raft. Colocalized with DPP4 in membrane rafts.

Images



Flow Cytometry analysis of BALB/c mouse splenocytes labeling CD45 with ab25386 at $1\text{ }\mu\text{g}/10^6$ cells (purple). A Mouse Anti-Rat IgG2b-PE was used as the secondary antibody. Grey - Isotype Control, Rat IgG2b-UNLB, followed by Mouse Anti-Rat IgG2b-PE. This image was generated using the ascites version of the product.

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

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