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Product datasheet

Anti-CD45 antibody [IBL-5/25] (Biotin) ab112510

1 References 1 Image

Overview

Product name	Anti-CD45 antibody [IBL-5/25] (Biotin)
Description	Rat monoclonal [IBL-5/25] to CD45 (Biotin)
Host species	Rat
Conjugation	Biotin
Specificity	Mouse CD45
Tested applications	**Suitable for:** IHC-Fr, IP, Flow Cyt
Species reactivity	**Reacts with:** Mouse
Immunogen	IL-3 dependent mast cells derived from WB- +/+ mice
Positive control	Mesenteric Lymph Node Cells

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.02% Sodium azide Constituents: 99% PBS, 0.5% BSA
Purity	Protein G purified
Clonality	Monoclonal
Clone number	IBL-5/25
Isotype	IgG1
Light chain type	kappa

Applications

Our Abpromise guarantee covers the use of **ab112510** 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
IHC-Fr		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
Flow Cyt		Use 2µg for 10^6 cells. ab18403 - Rat monoclonal IgG1, 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.

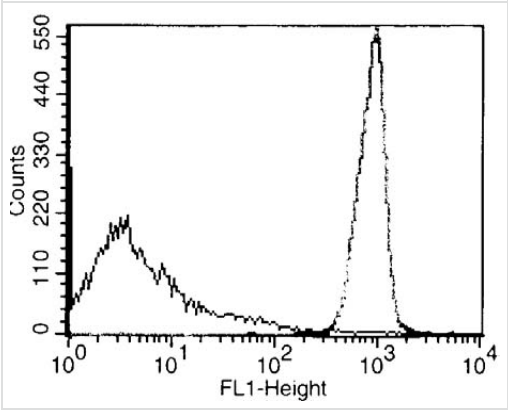
Post-translational modifications

Heavily N- and O-glycosylated.

Cellular localization

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

Images



Flow Cytometry - Anti-CD45 antibody [IBL-5/25] (Biotin) (ab112510)

Mesenteric Lymph Node Cells stained using ab112510 at 2µg / 10^6 cells.

Percentage of cells stained above control: >95%

Isotypic Control: Biotin Rat IgG1

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