


Product datasheet

Anti-CD45 antibody [HI30] (Phycoerythrin) ab210273

1 Image

Overview

<b>Product name</b>	Anti-CD45 antibody [HI30] (Phycoerythrin)
<b>Description</b>	Mouse monoclonal [HI30] to CD45 (Phycoerythrin)
<b>Host species</b>	Mouse
<b>Conjugation</b>	Phycoerythrin. Ex: 488nm, Em: 575nm
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Chimpanzee 
<b>Immunogen</b>	The details of the immunogen for this antibody are not available.
<b>Positive control</b>	Human peripheral blood lymphocytes.
<b>General notes</b>	This antibody is widely used as a marker for human CD45 expression on T cells, B cells, monocytes, macrophages, and NK cells.

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C. Store In the Dark.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.09% Sodium azide Constituents: 0.12% Monobasic dihydrogen sodium phosphate, 0.87% Sodium chloride, 0.1% Gelatin
<b>Purity</b>	Affinity purified
<b>Purification notes</b>	Purified from tissue culture supernatant. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation.
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	HI30
<b>Isotype</b>	IgG1
<b>Light chain type</b>	kappa

Applications

Our [Abpromise guarantee](#) covers the use of **ab210273** in the following tested applications.

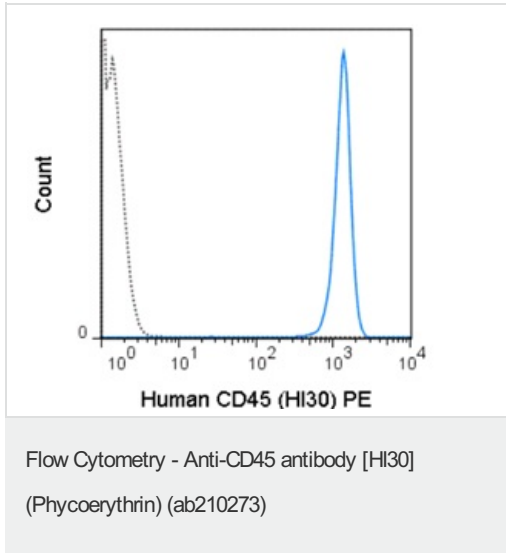
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		Use 5µl for 10 <sup>5-8</sup> cells.

## 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 analysis of Human peripheral blood lymphocytes labeling CD45 with ab210273 at 5 $\mu$ l (0.125 $\mu$ g) (solid line) or 0.125 $\mu$ g Phycoerythrin Mouse IgG1 isotype control (dashed line).

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