

Product datasheet

Anti-CD45 antibody [2D1] (PerCP/Cy5.5®) ab210221

1 Image

Overview

Product name	Anti-CD45 antibody [2D1] (PerCP/Cy5.5®)
Description	Mouse monoclonal [2D1] to CD45 (PerCP/Cy5.5®)
Host species	Mouse
Conjugation	PerCP/Cy5.5®. Ex: 482nm, Em: 690nm
Tested applications	Suitable for: Flow Cyt
Species reactivity	Reacts with: Human
Immunogen	The details of the immunogen for this antibody are not available.
Positive control	Human PBMCs.
General notes	<p>The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation.</p> <p>This product or portions thereof is manufactured under license from Carnegie Mellon University under U.S. Patent Number 5, 268, 486 and related patents. Cy and CyDye are trademarks of GE Healthcare Limited.</p> <p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.</p> <p>In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications & species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee.</p> <p>Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.</p> <p>Please check that this product meets your needs before purchasing. 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, as well as customer reviews and Q&As.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze. Store In the Dark.
Storage buffer	pH: 7.20 Preservative: 0.09% Sodium azide Constituents: 0.12% Monobasic dihydrogen sodium phosphate, 0.87% Sodium chloride, 0.1% Gelatin
Purity	Affinity purified
Purification notes	ab210221 was purified from tissue culture supernatant via affinity chromatography.
Clonality	Monoclonal
Clone number	2D1
Isotype	IgG1
Light chain type	kappa

Applications

Our [Abpromise guarantee](#) covers the use of **ab210221** in the following tested applications.

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

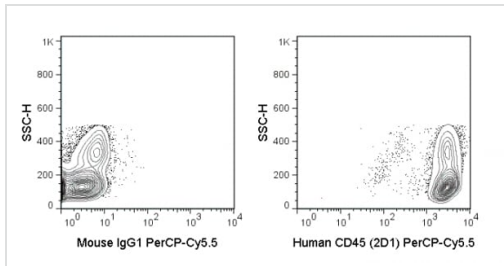
Application	Abreviews	Notes
Flow Cyt		Use 5µl for 10 ⁵⁻⁸ cells. in a final volume of approximately 100 µL.

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 cytometric analysis of Human PBMCs labeling CD45 with 5 μ L (0.125 μ g) ab210221 (right panel) or 0.125 μ g PerCP-Cy5.5 Mouse IgG1 isotype control (left panel).

Flow Cytometry - Anti-CD45 antibody [2D1]
(PerCP/Cy5.5®) (ab210221)

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