abcam

Product datasheet

Anti-CD45 antibody [F10-89-4] (Cy5 ®) ab82004

2 Abreviews

Overview

Product name	Anti-CD45 antibody [F10-89-4] (Cy5 ®)
Description	Mouse monoclonal [F10-89-4] to CD45 (Cy5 ®)
Conjugation	Cy5 ®. Ex: 650nm, Em: 667nm
Specificity	ab82004 is specific to CD45.
Tested applications	**Suitable for:** Flow Cyt, IHC-Fr, IP, WB
Species reactivity	**Reacts with:** Human
Immunogen	The details of the immunogen for this antibody are not available.
General notes	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. Abcam is committed to meeting high standards of ethical manufacturing and has decided to discontinue this product by July 2018 as it has been generated by the ascites method. We are sorry for any inconvenience this may cause.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	Preservative: 0.1% Sodium azide Constituent: PBS Also contains a stabilizing agent.
Purity	IgG fraction
Clonality	Monoclonal
Clone number	F10-89-4
Isotype	IgG2a

Applications

Our Abpromise guarantee covers the use of **ab82004** 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		
IHC-Fr		
IP		
WB		

Application notes

Flow Cyt: Use 10 µl for 10^6 cells.
IHC-Fr: Use at an assay dependent dilution.
IP: Use at an assay dependent dilution.
WB: Use at an assay dependent dilution. Predicted molecular weight: 147 kDa.

Not yet tested in other applications.
Optimal dilutions/concentrations should be determined by the end user.

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.

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