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Product datasheet

PerCP/Cy5.5® Anti-CD45 antibody [MEM-28] ab157309

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Overview

Product name	PerCP/Cy5.5® Anti-CD45 antibody [MEM-28]
Description	PerCP/Cy5.5® Mouse monoclonal [MEM-28] to CD45
Host species	Mouse
Conjugation	PerCP/Cy5.5®. Ex: 482nm, Em: 690nm
Specificity	ab157309 reacts with all alternative forms of Human CD45, expressed at high level on all cells of hematopoietic origin, except erythrocytes and platelets.
Tested applications	**Suitable for:** Flow Cyt
Species reactivity	**Reacts with:** Human
Immunogen	Tissue, cells or virus corresponding to Human CD45. Human thymocytes and T lymphocytes.
Positive control	Flow Cyt: Human peripheral blood cells.
General notes	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. 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

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	pH: 7.4 Preservative: 0.1% Sodium azide Constituents: 99% PBS, 0.2% BSA
Purity	Size exclusion
Purification notes	ab157309 is conjugated with tandem dye PerCP/Cy5.5® under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary for use in Flow Cytometry studies.
Clonality	Monoclonal

Clone number	MEM-28
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab157309 in the following tested applications.

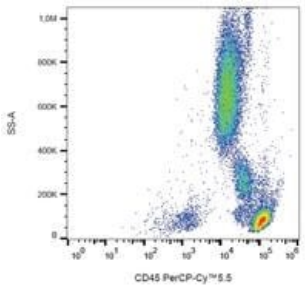
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt	★★★★★ **(1)**	Use 4µl for 10^6 cells. Or use 100 µl of whole blood. **ab157226** - Mouse 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 - PerCP/Cy5.5® Anti-CD45 antibody [MEM-28] (ab157309)

Surface staining of human peripheral blood cells with anti-human CD45 (**MEM-28**) PerCP-Cy™5.5.

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