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antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
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Anti-human CD45 PTPRC Monoclonal Antibody PE Conjugated, Flow Validated

Catalog Number: FC00555-PE

Introduction

The CD45 antigen is present on all human leucocytes including lymphocytes, monocytes, granulocytes, eosinophils, and basophils in peripheral blood. The antigen has a role in signal transduction, modifying signals from other surface molecules. The CD45 antibody has been reported to react weakly with mature circulating erythrocytes and plateletsThe antibody recognizes the human leukocyte common antigen which is found on cells from spleen, lymph nodes, 83% bone marrow cells and granulocytes. The antigen recognized by F10-89-4 is a glycoprotein with a molecular weight of 190kDa to 215kDa.

This antibody is routinely tested by flow cytometric analysis. Flow cytometry and other applications were tested during antibody development by CapricoBio or are reported in the literature.

Application Information

Each lot of this antibody has been pre-titrated and tested by flow cytometric analysis of human PBMCs such that 5ul of this product is sufficient for staining of 1 million cells in a 100ul staining volume or 100ul of whole blood. It is recommended that antibody reactivity be empirically titrated for optimal performance in the application of interest.

About PTPRC

CD45 (Cluster of Differentiation 45), also known as PTPRC, LCA or CD45R, is an enzyme that, in humans, is encoded by the PTPRC gene.CD45 is a member of the protein tyrosine phosphatase (PTP) family. CD45 is a major high molecular mass leukocyte cell surface molecule which is also an integral membrane protein tyrosine phosphatase.The cytogenetic location of CD45 is 1q31.3-q32.1. CD45 is especially a prototype for transmembrane protein-tyrosine phosphatase (PTP). Targeted disruption of the CD45 gene leads to enhanced cytokine and interferon receptor-mediated activation of JAKs and STAT proteins. In vitro, CD45 directly dephosphorylates and binds to JAKs. Functionally, CD45 negatively regulates interleukin-3-mediated cellular proliferation, erythropoietin-dependent hematopoiesis, and antiviral responses in vitro and in vivo. CD45 has been best studied in T cells, where it determines T cell receptor signaling thresholds. CD45 is moved into or out of the immunological synapse (IS) membrane microdomain depending on the relative influence of interaction with the extracellular galectin lattice or the intracellular actin cytoskeleton. Galectin interaction can be finetuned by varying usage of the heavily Oglycosylated spliced regions and sialylation of Nlinked carbohydrates.

Overview

Product Name	Anti-human CD45 PTPRC Monoclonal Antibody PE Conjugated, Flow Validated
Reactive Species	Human
Description	Boster Bio Anti-human CD45 PTPRC Monoclonal Antibody PE Conjugated, Flow Validated (Catalog# FC00555-PE). Tested in Flow Cytometry application(s). This antibody reacts with Human.
Conjugate	PE
Application	Flow Cytometry

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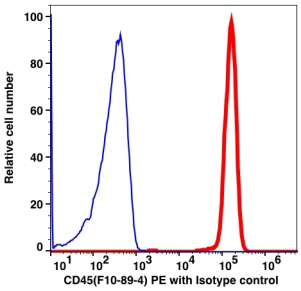
Clonality	Monoclonal Clone: F10-89-4
Formulation	PBS pH 7.2, 0.2% (w/v) BSA, 0.09% (w/v) sodium azide
Storage Instructions	Store at 2-8°C. Avoid repeated freeze-thaw cycles.
Host	Mouse
Uniprot ID	P08575

Technical Details

Immunogen	Human T lymphocytes
Predicted Reactive Species	Bovine, Canine
Isotype	IgG2a,k
Form	Liquid
Purification	Protein A purified
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: User needs to optimize the dilution ratio for this antibody.

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Anti-human CD45 PTPRC Monoclonal Antibody PE Conjugated, Flow Validated (FC00555-PE) Images



Lymphocyte-gated PBMCs stained with CD45 PE (RED)

3 Publications Citing This Product

1. PubMed ID: 26109430, Detecting cell-in-cell structures in human tumor samples by E-cadherin/CD68/CD45 triple staining

2. PubMed ID: 20682645, Lipoxin A4 and its analogue suppress the tumor growth of transplanted H22 in mice: the role of antiangiogenesis

3. PubMed ID: 26681001, Effect of human umbilical cord mesenchymal stem cells on endometriotic cell proliferation and apoptosis

Visit bosterbio.com/anti-human-cd45-pe-conjugated-flow-validated-fc00555-pe-boster.html to see all 3 publications.

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