Product datasheet

Anti-CD45/PTPRC Antibody (Clone#2H3)

Catalog Number: *M00555-5*

BOSTER
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Basic Information

Product Name	Anti-CD45/PTPRC Antibody (Clone#2H3)
Gene Name	PTPRC
Source	Mouse
Isotype	IgG2b
Species Reactivity	human
Tested Application	WB, IHC, IF, FCM
Contents	500 ug/ml antibody with PBS， 0.02% NaN3 , 1 mg BSA and 50% glycerol.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human CD45(1214-1254aa EQYQFLYDVIASTYPAQNGQVKKNNHQEDKIEFDNEVDKVK), different from the related mouse sequence by eight amino acids, and from the related rat sequence by ten amino acids.
concentration	500 ug/ml
Purification	protein G purified.
Observed MW	180-250KD
Dilution Ratios	Western blot(WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 Immunofluorescence (IF): 1:50-400 Flow cytometry (FCM): 1-3μg/1x10^6 cells (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.

Storage

12 months from date of receipt, -20℃ as supplied. 6 months 2 to 8℃ after reconstitution. Avoid repeated freezing and thawing.

Background Information

CD45 (Cluster of Differentiation 45), also known as PTPRC, LCA or CD45R, is an enzyme that, in humans, is encoded by the PTPRC gene. It 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. This gene 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. In addition, 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

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finetuned by varying usage of the heavily Oglycosylated spliced regions and sialylation of Nlinked carbohydrates.

Selected Validation Data

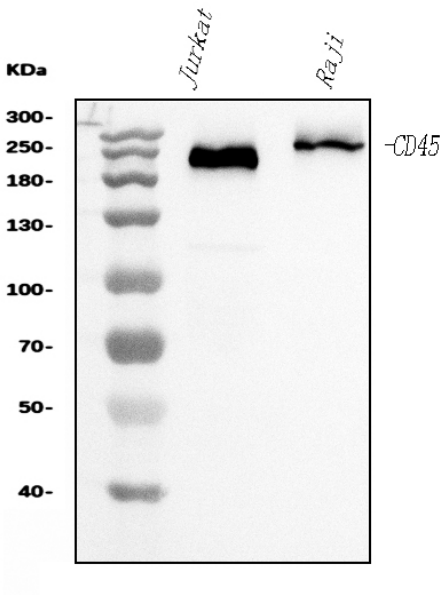

Figure 1. Western blot analysis of anti- CD45/PTPRC Antibody (M00555-5). The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: Jurkat tissue lysates,
Lane 2: Raji tissue lysates.
Use mouse anti-CD45/PTPRC 1:1000, probed with a goat anti-mouse IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001). A specific band was detected for CD45/PTPRC at approximately 147KD. The expected band size for CD45/PTPRC is at 147KD.