FITC Conjugated Anti-Human CD45 Antibody [PSH03-64]

HA600112F

Product Type:	Recombinant Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human
Applications:	FC
Molecular Wt:	Predicted band size: 147 kDa
Clone number:	PSH03-64

Description: The protein product of this gene, best known as CD45, is a member of the protein tyrosine phosphatase (PTP) family. PTPs are signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. CD45 contains an extracellular domain, a single transmembrane segment, and two tandem intracytoplasmic catalytic domains, and thus belongs to the receptor type PTP family. CD45 is a type I transmembrane protein that is present in various isoforms on all differentiated hematopoietic cells (except erythrocytes and plasma cells). CD45 has been shown to be an essential regulator of T- and B-cell antigen receptor signalling. It functions through either direct interaction with components of the antigen receptor complexes via its extracellular domain (a form of co-stimulation), or by activating various Src family kinases required for the antigen receptor signaling via its cytoplasmic domain. CD45 also suppresses JAK kinases, and so functions as a negative regulator of cytokine receptor signaling. Many alternatively spliced transcripts variants of this gene, which encode distinct isoforms, have been reported. Antibodies against the different isoforms of CD45 are used in routine immunohistochemistry to differentiate between immune cell types, as well as to differentiate between histological sections from lymphomas and carcinomas.

Conjugate:	FITC-conjugated
Immunogen:	Synthetic peptide.
Positive control:	Raji.
Subcellular location:	Cell membrane, Membrane raft.
Database links:	SwissProt: P08575 Human
Recommended Dilutions:	
FC	1:1,000
Storage Buffer:	Preservative: 0.02% Sodium azide Constituents: 30% Glycerol, 1% BSA, 68.98% PBS.
Storage Instruction:	Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.
Purity:	Protein A affinity purified.

Images

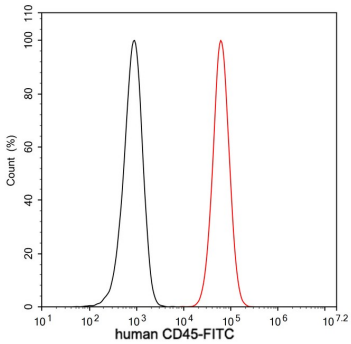

Fig1: Flow cytometric analysis of Raji cells labeling Human CD45.

Cells were washed twice with cold PBS and resuspend. Then incubated for 1 hour at +4℃ with Human CD45 (HA600112F, red, 1μg/mL). Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Background References

1. Al Barashdi MA et al. Protein tyrosine phosphatase receptor type C (PTPRC or CD45). J Clin Pathol. 2021 Sep
2. Li Z et al. CD45: a niche marker for allotransplantation. Blood. 2022 Mar