

# Anti-Human CD45 Antibody [PSH03-64]

HA601285



<b>Product Type:</b>	Recombinant Mouse monoclonal IgG1, primary antibodies
<b>Species reactivity:</b>	Human
<b>Applications:</b>	IF-Cell, FC
<b>Molecular Wt:</b>	Predicted band size: 147 kDa
<b>Clone number:</b>	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.

**Immunogen:** Synthetic peptide.

**Positive control:** Raji, human PBMC.

**Subcellular location:** Cell membrane, Membrane raft.

**Database links:** SwissProt: P08575 Human

**Recommended Dilutions:**

IF-Cell	1:100-1:1,000
FC	1:1,000

**Storage Buffer:** PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

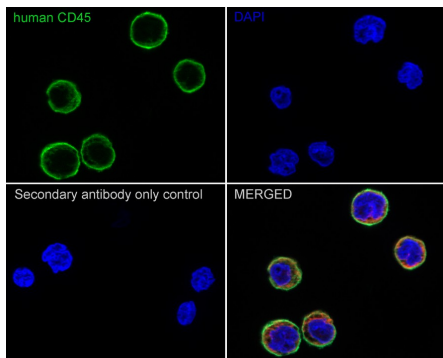
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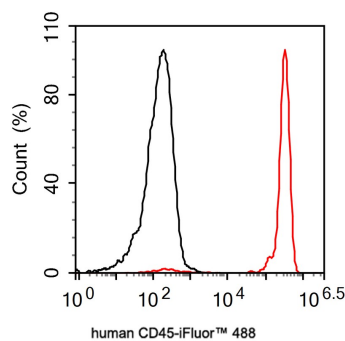
## Images

**Fig1:** Immunocytochemistry analysis of Raji cells labeling Human CD45 with Mouse anti-Human CD45 antibody (HA601285) at 1/100 dilution.



Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Mouse anti-Human CD45 antibody (HA601285) at 1/100 dilution in 1% BSA in PBST overnight at 4 °C. Goat Anti-Mouse IgG H&L (iFluor™ 488, HA1125) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

beta Tubulin (ET1602-4, red) was stained at 1/100 dilution overnight at +4°C. Goat Anti-Rabbit IgG H&L (iFluor™ 594, HA1122) were used as the secondary antibody at 1/1,000 dilution.



**Fig2:** Flow cytometric analysis of human PBMC labeling Human CD45.

Cells were washed twice with cold PBS and resuspend. Then stained with the primary antibody (HA601285, 1µg/mL) (red). After incubation of the primary antibody at +4°C for 30 minutes, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Mouse IgG Secondary antibody (HA1125) at 1/1,000 dilution for 30 minutes at +4°C. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

## 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

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