

ProteinFind[®] Anti-CD45 Mouse Monoclonal Antibody

Please read the manual carefully before use.

Cat. No. HI106

Storage: PBS (pH7.4), 0.05% Sodium Azide, 1% BSA, 40% Glycerol; at -20°C for two years, avoid repeated freeze-thawing.

Description

CD45 is a single chain type I transmembrane glycoprotein of 180-240 kDa^[1], also known as Protein tyrosine phosphatase, receptor type C (PTPRC), or T200 glycoprotein, T200 leukocyte common antigen, etc., are expressed in the plasma membrane of all hematopoietic cells except red blood cells or platelets^[2]. CD45 structure consists of one extracellular domain, one transmembrane domain and two tandem intracellular catalytic domains. CD45 is a member of the protein tyrosine phosphatase (PTP) family, which regulates various cellular processes such as cell growth, differentiation, cell cycle, and oncogene transformation^[3]. In addition, CD45 plays a key role in the activation of T cell and B cell antigen receptor-mediated dephosphorylation substrates, including p56lck, p59fyn, and other src family kinases^[4].

Species Reactivity: Human (the results of species reactivity were determined according to WB experiment).

Clone Number: Trans-10F2

Antibody Isotype: Mouse IgG1

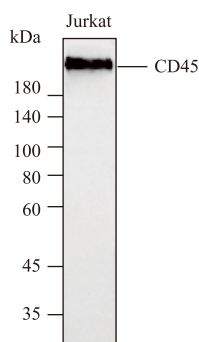
Immunogen

- Recombinant human CD45 protein partial extracellular region
- Entrez Gene ID: 5788
- UniProt ID: P08575

Applicable Experiments and Dilution

- WB: 1:1000 dilution is recommended.
- IF: 1:100 dilution is recommended.
- FC: 1:100 dilution is recommended.

Positive Control Cell Line: Jurkat cells



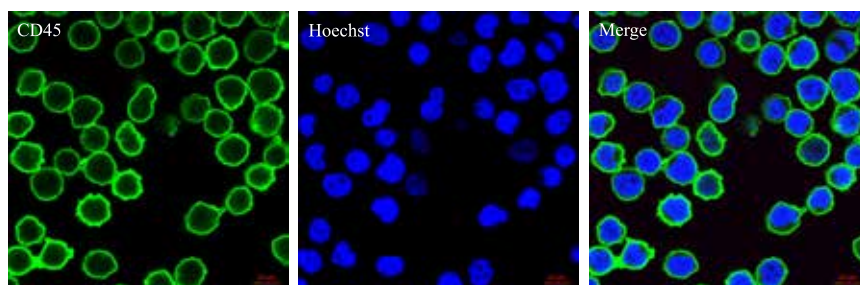
WB: *ProteinFind*[®] Anti-CD45 Mouse Monoclonal Antibody for detection of CD45 protein expression in Jurkat cells.

Dilution ratio of primary antibody: 1:1000

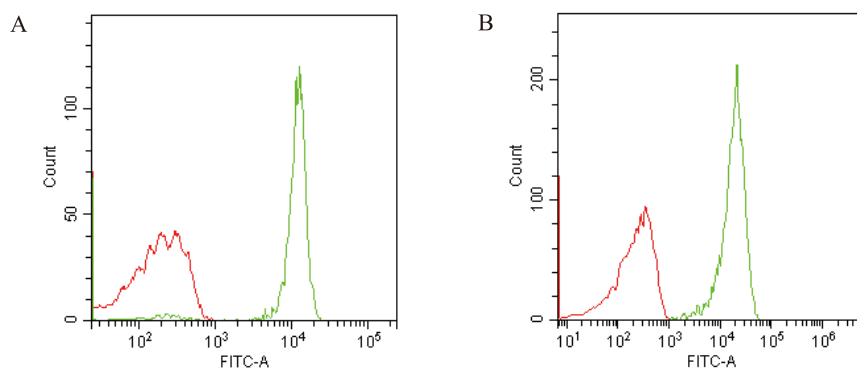
Predicted molecular weight: 147 kDa

Actual molecular weight: 200 kDa





IF: *ProteinFind*[®] Anti-CD45 Mouse Monoclonal Antibody (green) for detection of CD45 localization in Jurkat cells.
Hoechst is used to label the nucleus (blue).
Dilution ratio of primary antibody: 1:100



FC: *ProteinFind*[®] Anti-CD45 Mouse Monoclonal Antibody (绿色) 对人外周血 (A图) 及Jurkat细胞 (B图) 的FC检测结果。
阴性对照为Mouse IgG1 Isotype Control (红色)。
一抗稀释倍数: 1:100

References

- [1] Charbonneau H, Tonks NK, Walsh KA, et al. The leukocyte common antigen (CD45): a putative receptor-linked protein tyrosine phosphatase [J]. *Proc Natl Acad Sci U S A*, 1988, 85(19): 7182-6.
- [2] Tchilian EZ, Wallace DL, Wells RS, et al. A Deletion in the Gene Encoding the CD45 Antigen in a Patient with SCID [J]. *The Journal of Immunology*, 2001, 166(2): 1308-13.
- [3] Lee MS, Hanspers K, Barker CS, et al. Gene expression profiles during human CD4⁺ T cell differentiation [J]. *International Immunology*, 2004, 16(8): 1109-24.
- [4] Penninger JM, Wallace VA, Kishihara K, et al. The role of p56lck and p59fyn tyrosine kinases and CD45 protein tyrosine phosphatase in T-cell development and clonal selection [J]. *Immunol Rev*, 1993, 135: 183-214.

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