

**CD45 (8C1) Mouse mAb**  
**Catalog # AP53505****Specification**

---

**CD45 (8C1) Mouse mAb - Product Information**

Application	WB, IHC-P, IF
Primary Accession	<a href="#">P06800</a>
Host	Mouse
Clonality	Monoclonal Antibody
Calculated MW	144837

**CD45 (8C1) Mouse mAb - Additional Information****Gene ID** 19264**Other Names**

GP180, L CA, CD45 antigen

**Dilution**WB~~1:1000  
IHC-P~~1:200  
IF~~1:200**CD45 (8C1) Mouse mAb - Protein Information****Name** Ptprc {ECO:0000312|MGI:MGI:97810}**Synonyms** Ly-5**Function**

Protein tyrosine-protein phosphatase required for T-cell activation through the antigen receptor. Acts as a positive regulator of T-cell coactivation upon binding to DPP4. The first PTPase domain has enzymatic activity, while the second one seems to affect the substrate specificity of the first one. Upon T-cell activation, recruits and dephosphorylates SKAP1 and FYN (By similarity). Dephosphorylates LYN, and thereby modulates LYN activity. Interacts with CLEC10A at antigen presenting cell-T cell contact; CLEC10A on immature dendritic cells recognizes Tn antigen-carrying PTPRC/CD45 receptor on effector T cells and modulates T cell activation threshold to limit autoreactivity.

**Cellular Location**

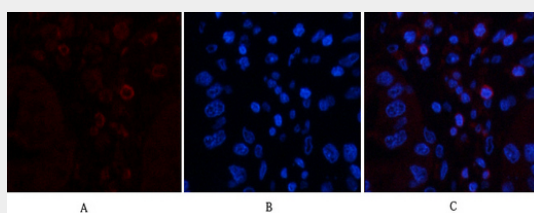
Cell membrane {ECO:0000250|UniProtKB:P08575}; Single-pass type I membrane protein.  
Membrane raft {ECO:0000250|UniProtKB:P08575}. Synapse {ECO:0000250|UniProtKB:P08575}  
Note=Colocalized with DPP4 in membrane rafts {ECO:0000250|UniProtKB:P08575}

**CD45 (8C1) Mouse mAb - Protocols**

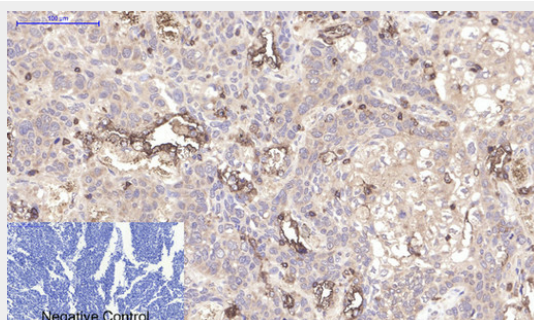
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### CD45 (8C1) Mouse mAb - Images



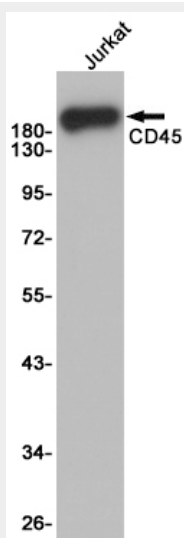
Immunofluorescence analysis of human-liver-cancer tissue. 1, CD45 Monoclonal Antibody(12A9)(red) was diluted at 1:200(4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300(room temperature, 50min). 3, Picture B: DAPI(blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



Immunohistochemical analysis of paraffin-embedded Human-lung-cancer tissue. 1, CD45 Monoclonal Antibody(12A9) was diluted at 1:200(4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C, 20min). 3, Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



Western blot analysis of Hela, diluted at 1:2000.



Western blot detection of CD45 in Jurkat cell lysates using CD45 (8C1) Mouse mAb(1:1000 diluted). Predicted band size: 147KDa. Observed band size: 180 to 240KDa.

#### **CD45 (8C1) Mouse mAb - Background**

Swiss-Prot Acc.P06800. Protein tyrosine-protein phosphatase required for T-cell activation through the antigen receptor. Acts as a positive regulator of T-cell coactivation upon binding to DPP4. The first PTPase domain has enzymatic activity, while the second one seems to affect the substrate specificity of the first one. Upon T-cell activation, recruits and dephosphorylates SKAP1 and FYN. Dephosphorylates LYN, and thereby modulates LYN activity.