

**CD45 Monoclonal Antibody(12A9)**

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| <b>Catalog No :</b>          | YM3046   |
| <b>Reactivity :</b>          | Human  |
| <b>Applications :</b>        | IF;WB;IHC;   |
| <b>Target :</b>              | CD45   |
| <b>Fields :</b>              | >>Cell adhesion molecules;>>T cell receptor signaling pathway;>>Fc gamma R-mediated phagocytosis;>>Salmonella infection;>>Primary immunodeficiency |
| <b>Gene Name :</b>           | PTPRC  |
| <b>Protein Name :</b>        | Receptor-type tyrosine-protein phosphatase C   |
| <b>Human Gene Id :</b>       | 5788   |
| <b>Human Swiss Prot No :</b> | P08575   |
| <b>Mouse Swiss Prot No :</b> | P06800   |
| <b>Rat Gene Id :</b>         | 24699  |
| <b>Rat Swiss Prot No :</b>   | P04157   |
| <b>Immunogen :</b>           | Synthetic Peptide of CD45  |
| <b>Specificity :</b>         | The antibody detects endogenous CD45 proteins.   |
| <b>Formulation :</b>         | PBS, pH 7.4, containing 0.5%BSA, 0.02% sodium azide as Preservative and 50% Glycerol.  |
| <b>Source :</b>              | Monoclonal, Mouse  |
| <b>Dilution :</b>            | IF 1:50-200 WB 1:2000 IHC 1:50-300   |
| <b>Purification :</b>        | The antibody was affinity-purified from mouse ascites by affinity-chromatography using specific immunogen.   |

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**Storage Stability :** -15°C to -25°C/1 year(Do not lower than -25°C)

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**Observed Band :** 147kD

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**Cell Pathway :** Cell adhesion molecules (CAMs);T\_Cell\_Receptor;Fc gamma R-mediated phagocytosis;Primary immunodeficiency;

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**Background :** The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitosis, and oncogenic transformation. This PTP contains an extracellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains, and thus is classified as a receptor type PTP. This PTP has been shown to be an essential regulator of T- and B-cell antigen receptor signaling. It functions through either direct interaction with components of the antigen receptor complexes, or by activating various Src family kinases required for the antigen receptor signaling. This PTP also suppresses JAK kinases, and thus functions as a regulator of cytokine receptor signaling. Alternatively spliced transcripts variants of this gene, which enc

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**Function :** alternative products:At least 8 isoforms are produced,catalytic activity:Protein tyrosine phosphate + H(2)O = protein tyrosine + phosphate.,disease:Defects in PTPRC are a cause of severe combined immunodeficiency autosomal recessive T-cell-negative/B-cell-positive/NK-cell-positive (T(-)B(+)NK(+))SCID [MIM:608971]. SCID refers to a genetically and clinically heterogeneous group of rare congenital disorders characterized by impairment of both humoral and cell-mediated immunity, leukopenia, and low or absent antibody levels. Patients with SCID present in infancy with recurrent, persistent infections by opportunistic organisms. The common characteristic of all types of SCID is absence of T-cell-mediated cellular immunity due to a defect in T-cell development.,disease:Genetic variations in PTPRC are involved in multiple sclerosis susceptibility (MS) [MIM:126200]. MS is a neurodegenerative dis

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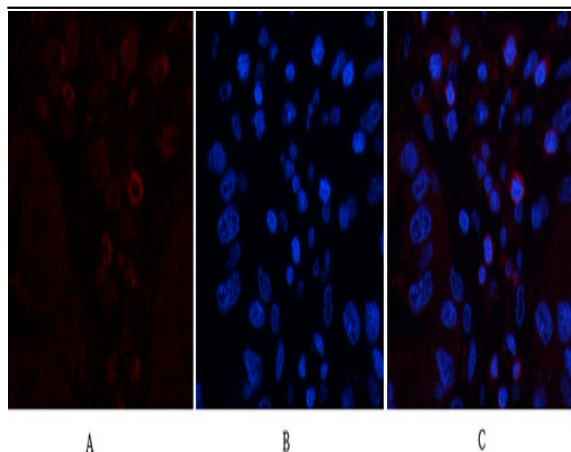
**Subcellular Location :** Cell membrane ; Single-pass type I membrane protein . Membrane raft . Colocalized with DPP4 in membrane rafts. .

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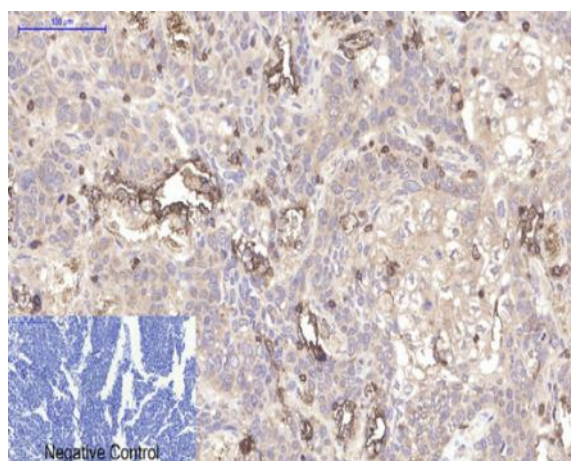
**Expression :** Isoform 1: Detected in thymocytes. Isoform 2: Detected in thymocytes. Isoform 3: Detected in thymocytes. Isoform 4: Not detected in thymocytes. Isoform 5: Detected in thymocytes. Isoform 6: Not detected in thymocytes. Isoform 7: Detected in thymocytes. Isoform 8: Not detected in thymocytes.

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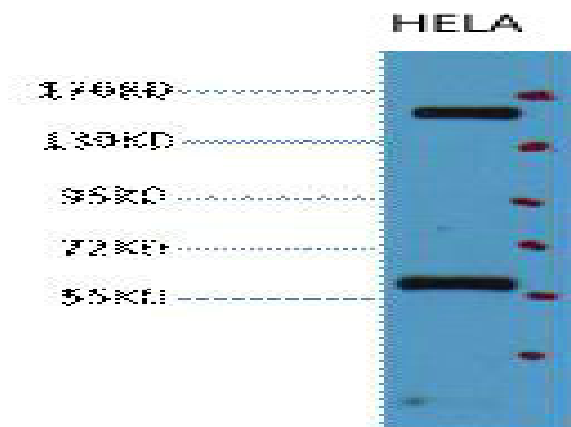
## Products Images



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.