

## PRODUCT DATA SHEET

Bioworld Technology,Inc.

# **CD45** monoclonal antibody

Catalog: MB66050 Host: Mouse Reactivity: Human

#### **BackGround:**

The protein phosphatase (PTP) receptor CD45 is a type I transmembrane protein comprised of a pair of intracellular tyrosine phosphatase domains and a variable extracellular domain generated by alternative splicing. The catalytic activity of CD45 is a function of the first phosphatase domain (D1) while the second phosphatase domain (D2) may interact with and stabilize the first domain, or recruit/bind substrates. CD45 interacts directly with antigen receptor complex proteins or activates Src family kinases involved in the regulation of T- and B-cell antigen receptor signaling. Specifically, CD45 dephosphorylates Src-family kinases Lck and Fyn at their conserved negative regulatory carboxy-terminal tyrosine residues and upregulates kinase activity. Conversely, studies indicate that CD45 can also inhibit Lck and Fyn by dephosphorylating their positive regulatory autophosphorylation site. CD45 appears to be both a positive and a negative regulator that conducts signals depending on specific stimuli and cell type. Human leukocytes including lymphocytes, eosinophils, monocytes, basophils, and neutrophils express CD45, while erythrocytes and platelets are negative for CD45 expression.

#### **Product:**

Mouse IgG2b. Liquid in PBS containing 50% glycerol, 0.2% BSA and 0.01% sodium azide.

# **Molecular Weight:**

~ 147 kDa

## **Swiss-Prot:**

P08575

#### **Purification&Purity:**

The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

#### **Applications:**

IHC (1/100 - 1/300)

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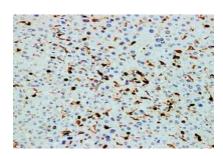
#### **Storage&Stability:**

Store at  $4 \,^{\circ}$ C short term. Aliquot and store at  $-20 \,^{\circ}$ C long term. Avoid freeze-thaw cycles.

# **Specificity:**

Recognizes endogenous levels of CD45 protein.

#### **DATA:**



Immunohistochemical analysis of CD45 staining in human liver formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunohistochemical analysis of CD45 staining in human tonsil formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

### Note:

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For research use only, not for use in diagnostic procedure.

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