

## CD100 Rabbit monoclonal antibody

Catalog: MB66385

Host: Rabbit

Reactivity: Human

### BackGround:

Semaphorin-4D/CD100 (Sema4D) is a disulfide-linked homodimeric type 1 transmembrane glycoprotein belonging to the class IV family of membrane bound semaphorins. The extracellular domain of Sema4D contains a cysteine-rich semaphorin-like domain, an Ig-like domain, and a PSI domain. Research studies have suggested that the cytoplasmic domain has a signaling function as it is phosphorylated on serine residues. Initial studies involving Sema4D revealed that it was implicated in axon guidance within the central nervous system through binding its high affinity receptor, plexin-B1. Sema4D function has also been extensively characterized in the immune system and is the first semaphorin found to be expressed on the surface of many types of immune cells. In the immune system, CD72 serves as a low-affinity receptor for Sema4D and research studies have shown that Sema4D not only regulates T-cell activation but is also involved in the regulation of B-cell survival and differentiation. Many of the physiologic effects of Sema4D in the immune system are regulated by a soluble extracellular domain-containing fragment generated through proteolytic cleavage. Sema4D has also been implicated in oncogenesis as research studies have demonstrated overexpression in multiple types of solid tumors. The role of Sema4D in oncogenesis, in part, has been linked to its ability to promote tumor angiogenesis, cell invasion, and immunosuppression through enhancement of myeloid derived suppressor cell function.

### Product:

Liquid in 50mM Tris-Glycine (pH 7.4), 0.15M NaCl, 50% Glycerol, 0.01% Sodium azide and 0.05% BSA.

### Molecular Weight:

~ 120 kDa

### Swiss-Prot:

Q92854

### Purification&Purity:

The antibody was purified by immunogen affinity chromatography.

### Applications:

WB (1/500 - 1/1000), IF/ICC (1/50 - 1/100)

### Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

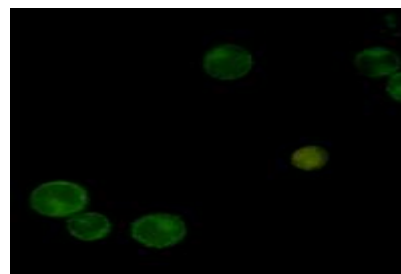
### Specificity:

Recognizes endogenous levels of CD100 protein.

### DATA:



Western blot analysis of CD100 expression in Jurkat (A) whole cell lysates.



Immunofluorescent analysis of CD100 staining in Jurkat cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark.

### Note:

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

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## PRODUCT DATA SHEET

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