

**CD100**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO2646a**

**Specification**

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**CD100 - Product Information**

Application	<b>E, WB, IHC</b>
Primary Accession	<a href="#">O92854</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>Mouse IgG1</b>
Calculated MW	<b>96.2kDa KDa</b>

**Immunogen**

Purified recombinant fragment of human CD100 (AA: extra 590-734) expressed in E. Coli.

**Formulation**

Purified antibody in PBS with 0.05% sodium azide

**CD100 - Additional Information**

**Gene ID** 10507

**Other Names**

SEMA4D; SEMAJ; coll-4; C9orf164; M-sema-G

**Dilution**

E~~ 1/10000  
WB~~ 1/500 - 1/2000  
IHC~~ 1/200 - 1/1000

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

CD100 is for research use only and not for use in diagnostic or therapeutic procedures.

**CD100 - Protein Information**

**Name** SEMA4D

**Synonyms** C9orf164, CD100, SEMAJ

**Function**

Cell surface receptor for PLXNB1 and PLXNB2 that plays an important role in cell-cell signaling (PubMed:<a href="http://www.uniprot.org/citations/20877282" target="\_blank">20877282</a>).

Regulates GABAergic synapse development (By similarity). Promotes the development of inhibitory synapses in a PLXNB1-dependent manner (By similarity). Modulates the complexity and arborization of developing neurites in hippocampal neurons by activating PLXNB1 and interaction with PLXNB1 mediates activation of RHOA (PubMed:<a href="http://www.uniprot.org/citations/19788569" target="\_blank">19788569</a>). Promotes the migration of cerebellar granule cells (PubMed:<a href="http://www.uniprot.org/citations/16055703" target="\_blank">16055703</a>). Plays a role in the immune system; induces B-cells to aggregate and improves their viability (in vitro) (PubMed:<a href="http://www.uniprot.org/citations/8876214" target="\_blank">8876214</a>). Induces endothelial cell migration through the activation of PTK2B/PYK2, SRC, and the phosphatidylinositol 3-kinase-AKT pathway (PubMed:<a href="http://www.uniprot.org/citations/16055703" target="\_blank">16055703</a>).

### Cellular Location

Cell membrane; Single-pass type I membrane protein

### Tissue Location

Strongly expressed in skeletal muscle, peripheral blood lymphocytes, spleen, and thymus and also expressed at lower levels in testes, brain, kidney, small intestine, prostate, heart, placenta, lung and pancreas, but not in colon and liver

### CD100 - 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](#)

### CD100 - Images

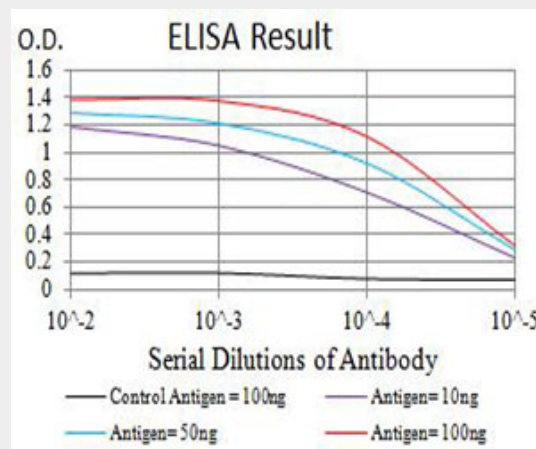


Figure 1: Black line: Control Antigen (100 ng); Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line: Antigen (100 ng)

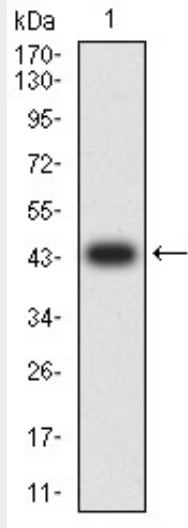


Figure 2:Western blot analysis using CD100 mAb against human CD100 (AA: extra 590-734) recombinant protein. (Expected MW is 43.2 kDa)

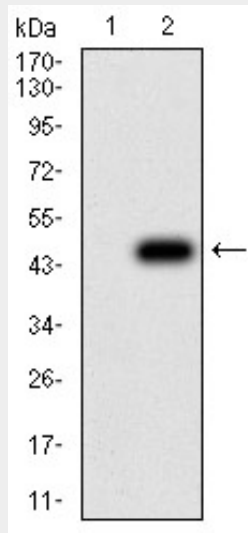


Figure 3:Western blot analysis using CD100 mAb against HEK293 (1) and CD100 (AA: extra 590-734)-hlgGfc transfected HEK293 (2) cell lysate.

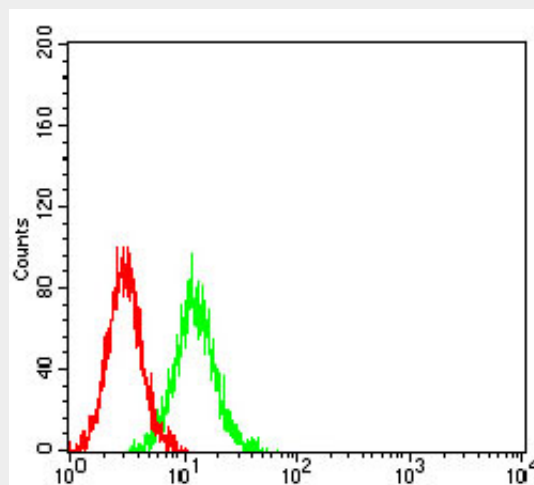


Figure 4:Flow cytometric analysis of K562 cells using CD100 mouse mAb (green) and negative

control (red).

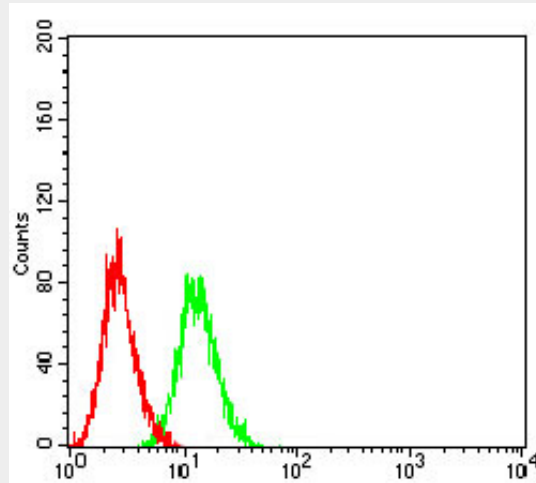


Figure 5:Flow cytometric analysis of Ramos cells using CD100 mouse mAb (green) and negative control (red).

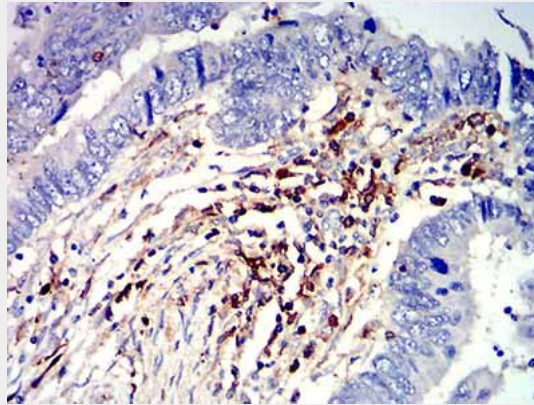


Figure 6:Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using CD100 mouse mAb with DAB staining.

#### **CD100 - References**

- 1.PLoS One. 2016 Feb 24;11(2):e0150151.2.Microvasc Res. 2014 May;93:1-8.