

**CD100 (Semaphorin-4D) Antibody - With BSA and Azide**  
**Mouse Monoclonal Antibody [Clone A8 ]**  
**Catalog # AH11059****Specification**

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**CD100 (Semaphorin-4D) Antibody - With BSA and Azide - Product Information**

Application	,3,4,
Primary Accession	<a href="#">O92854</a>
Other Accession	<a href="#">10507</a> , <a href="#">494406</a>
Reactivity	Human, Mouse, Monkey
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Calculated MW	50kDa (Monomer) KDa

**CD100 (Semaphorin-4D) Antibody - With BSA and Azide - Additional Information****Gene ID** 10507**Other Names**

Semaphorin-4D, A8, BB18, GR3, CD100, SEMA4D, C9orf164, CD100, SEMAJ

**Storage**

Store at 2 to 8°C. Antibody is stable for 24 months.

**Precautions**

CD100 (Semaphorin-4D) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

**CD100 (Semaphorin-4D) Antibody - With BSA and Azide - 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: [20877282](http://www.uniprot.org/citations/20877282)). 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: [19788569](http://www.uniprot.org/citations/19788569)). Promotes the migration of cerebellar granule cells (PubMed: [16055703](http://www.uniprot.org/citations/16055703)). Plays a role in the immune system; induces B-cells to aggregate and improves their viability (in vitro) (PubMed: [8876214](http://www.uniprot.org/citations/8876214)). 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 (Semaphorin-4D) Antibody - With BSA and Azide - 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 (Semaphorin-4D) Antibody - With BSA and Azide - Images****CD100 (Semaphorin-4D) Antibody - With BSA and Azide - Background**

Recognizes a homodimeric protein comprised of 50kDa subunits, identified as CD100. It is expressed on majority of haemopoietic cells (B, T, NK and myeloid cells) and is absent from bone marrow, erythrocytes, eosinophils and endothelial cells. Its expression is increased after PHA-activation. CD100 was shown to associate with different partner molecules in T cells such as CD45, a key molecule with protein tyrosine phosphatase activity involved in T-cell transduction, and a Serine kinase. It plays a role in homotypic cell adhesion and in T cell activation.

**CD100 (Semaphorin-4D) Antibody - With BSA and Azide - References**

Hall K, et al. 1996. P. Natl. Acad. Sci. USA 93:11780. | Mizrahi S, et al. 2007. PLoS One. 2(9):e818. | Yoshino N, et al. 2000. Exp. Anim. (Tokyo) 49:97. (FC) | Schlossman SL Bloumsell W Gilks et al. eds. 1995. Leucocyte Typing V: White Cell Differentiation Antigens. Oxford University Press New York. | Bougeret CIG Mansur H Dastot et al. 1992. Increased surface expression of a newly identified 150 kDa dimer early after human T lymphocyte activation. J. Immunol. 148:318. | Knapp WB Dorken EP. Rieber et al, eds. 1989. Leucocyte Typing IV: White Cell Differentiation Antigens. Oxford University Press New York