

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

Mouse Monoclonal Antibody [Clone SEMA4D/933 ]

Catalog # AH11061

## Product Information

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<b>Application</b>	IF, FC
<b>Primary Accession</b>	<a href="#">Q92854</a>
<b>Other Accession</b>	<a href="#">10507</a> , <a href="#">494406</a>
<b>Reactivity</b>	Human
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Isotype</b>	Mouse / IgG1, kappa
<b>Clone Names</b>	SEMA4D/933
<b>Calculated MW</b>	96150

## Additional Information

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<b>Gene ID</b>	10507
<b>Other Names</b>	Semaphorin-4D, A8, BB18, GR3, CD100, SEMA4D, C9orf164, CD100, SEMAJ
<b>Application Note</b>	IF~~1:50~200 FC~~1:10~50
<b>Storage</b>	Store at 2 to 8°C. Antibody is stable for 24 months.
<b>Precautions</b>	CD100 (Semaphorin-4D) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	SEMA4D
<b>Synonyms</b>	C9orf164, CD100, SEMAJ
<b>Function</b>	Cell surface receptor for PLXNB1 and PLXNB2 that plays an important role in cell-cell signaling (PubMed: <a href="#">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="#">19788569</a> ). Promotes the migration of cerebellar granule cells (PubMed: <a href="#">16055703</a> ). Plays a role in the immune system; induces B-cells to aggregate and improves their viability (in vitro) (PubMed: <a href="#">8876214</a> ). Induces endothelial cell migration through the activation of PTK2B/PYK2, SRC, and the phosphatidylinositol 3-kinase-AKT pathway (PubMed: <a href="#">16055703</a> ).

<b>Cellular Location</b>	Cell membrane; Single-pass type I membrane protein
<b>Tissue Location</b>	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

## Background

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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.

## References

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Schlossman SL Bloumsell W Gilks et al. eds. 1995. Leucocyte Typing V: White Cell Differentiation Antigens. Oxford University Press New York. | Knapp WB Dorken EP. Rieber et al, eds. 1989. Leucocyte Typing IV: White Cell Differentiation Antigens. Oxford University Press New York

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.