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

Mouse Monoclonal Antibody [Clone 133-1C6]
Catalog # AH11057

Specification

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

Application	**,3,4,**
Primary Accession	Q92854
Other Accession	10507, 494406
Reactivity	**Human, Baboon**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse / IgM, 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). 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). Promotes the migration of cerebellar granule cells (PubMed:16055703). Plays a role in the immune system; induces B-cells to aggregate and improves their viability (in vitro) (PubMed:8876214). Induces endothelial cell migration through the activation of PTK2B/PYK2, SRC, and the

phosphatidylinositol 3-kinase-AKT pathway (PubMed:16055703).

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 Cytomety
- 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 (Workshop VI; Code N-L026). 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

Kishimoto T et al. (eds) Leukocyte Typing VI, Garland Publishing, New York, 1997. | Schlossman SF et al. (eds) Leucocyte Typing V Oxford University Press, Oxford. 1995. | Delaire S et al. CD100 is a leukocyte semaphorin. Cell Mol Life Sci 1998, 54(11):1265-1276. | Dorfman DM et al. The leukocyte semaphorin CD100 is expressed in most T-cell, but few B-cell, non-Hodgkin's lymphomas. Am J Pathol 1998, 153(1):255-262. | Herold C et al. CD100 is associated with CD45 at the surface of human T lymphocytes. Role in T cell homotypic adhesion. J Immunol 1996, 157(12):5262-5268. | Elhabazi A et al. The human semaphorin-like leukocyte cell surface molecule CD100 associates with a serine kinase activity. J Biol Chem 1997, 272(38):23515-23520. | Hall KT et al. Human CD100, a novel leukocyte semaphorin that promotes B-cell aggregation and differentiation. Proc Natl Acad Sci USA 1996, 93(21):11780-1178