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SLAMF4 Antibody
Catalog # ASC11306

Specification

SLAMF4 Antibody - Product Information

Application	**WB, IF**
Primary Accession	Q9BZW8
Other Accession	NP_1160135, 7706529
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**SLAMF4 antibody can be used for detection of SLAMF4 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunofluorescence starting at 20 µg/mL. For immunofluorescence start at 20 µg/mL.**

SLAMF4 Antibody - Additional Information

Gene ID **51744**

Target/Specificity
CD244; At least three isoforms of SLAMF4 are known to exist. SLAMF4 antibody is predicted to not cross-react with other SLAM protein family members.

Reconstitution & Storage
SLAMF4 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
SLAMF4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SLAMF4 Antibody - Protein Information

Name CD244

Synonyms 2B4

Function
Heterophilic receptor of the signaling lymphocytic activation molecule (SLAM) family; its ligand is CD48. SLAM receptors triggered by homo- or heterotypic cell-cell interactions are modulating the activation and differentiation of a wide variety of immune cells and thus are involved in the regulation and interconnection of both innate and adaptive immune response. Activities are controlled by presence or absence of small cytoplasmic adapter proteins, SH2D1A/SAP and/or SH2D1B/EAT-2. Acts as activating natural killer (NK) cell receptor (PubMed:10359122, PubMed:8376943, PubMed:<a

href="http://www.uniprot.org/citations/11714776" target="_blank">11714776). Activating function implicates association with SH2D1A and FYN (PubMed:15713798). Downstreaming signaling involves predominantly VAV1, and, to a lesser degree, INPP5D/SHIP1 and CBL. Signal attenuation in the absence of SH2D1A is proposed to be dependent on INPP5D and to a lesser extent PTPN6/SHP-1 and PTPN11/SHP-2 (PubMed:10934222, PubMed:15713798). Stimulates NK cell cytotoxicity, production of IFN-gamma and granule exocytosis (PubMed:8376943, PubMed:11714776). Optimal expansion and activation of NK cells seems to be dependent on the engagement of CD244 with CD48 expressed on neighboring NK cells (By similarity). Acts as costimulator in NK activation by enhancing signals by other NK receptors such as NCR3 and NCR1 (PubMed:10741393). At early stages of NK cell differentiation may function as an inhibitory receptor possibly ensuring the self-tolerance of developing NK cells (PubMed:11917118). Involved in the regulation of CD8(+) T-cell proliferation; expression on activated T-cells and binding to CD48 provides costimulatory-like function for neighboring T-cells (By similarity). Inhibits inflammatory responses in dendritic cells (DCs) (By similarity).

Cellular Location
Membrane; Single-pass type I membrane protein. Cell membrane Note=Receptor engagement results in a recruitment to lipid drafts essential for the subsequent tyrosine phosphorylation of the ITSMs

Tissue Location
Expressed in spleen, PBL, followed by lung, liver, testis and small intestine. Expressed in all natural killer (NK) cells, monocytes and basophils, TCR-gamma/delta+ T-cells, monocytes, basophils, and on a subset of CD8(+) T-cells

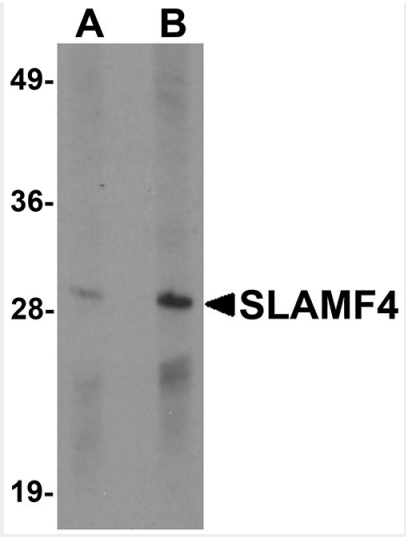
SLAMF4 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

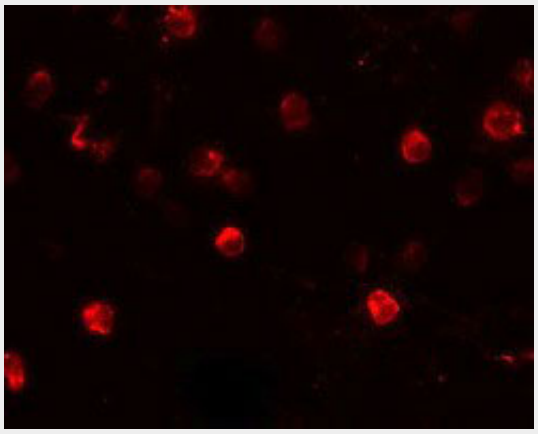
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SLAMF4 Antibody - Images

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Western blot analysis of SLAMF4 in Daudi cell lysate with SLAMF4 antibody at (A) 1 and (B) 2 µg/mL.



Immunofluorescence of SLAMF4 in Daudi cells with SLAMF4 antibody at 20 µg/mL.

SLAMF4 Antibody - Background

SLAMF4 Antibody: The signaling lymphocyte-activation molecule family member 4 (SLAMF4), also known as 2B4, is an important regulator of Natural Killer (NK) cell activation. It is expressed on NK cells as well as on subsets of T cells and interacts with SLAMF2, causing the activation of both SLAMF4- and SLAMF2-expressing cells. Patients with systemic lupus erythmatosus have lower than normal levels of SLAMF4 expressed on their NK cells and monocytes, suggesting that SLAMF4 may play a role in this autoimmune disease.

SLAMF4 Antibody - References

Claus M, Meinke S, Bhat R, et al. Regulation of NK cell activity by 2B4, NTB-A and CRACC. Front. Biosci. 2008; 13:956-65.
Sidorenko SP and Clark EA. The dual-function CD150 receptor sub-family: the viral attraction. Nat. Immunol. 4:19-24.
Assarsson E, Kambayashi T, Persson CM, et al. 2B4/CD48-mediated regulation of lymphocyte activation and function. J. Immunol. 2005; 175:2045-9
Kim JR, Matther SO, Patel RK, et al. Altered expression of signalling lymphocyte activation molecule (SLAM) family receptors CS1 (CD319) and 2B4 (CD244) in patients with systemic lupus erythmatosus. Clin. Exp. Immunol. 2010; 160:348-58