

Rabbit SLAM/CD150 Polyclonal Antibody | anti-SLAM/CD150 antibody

Phospho-SLAM/CD150 (Tyr327) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329640	Rabbit	Human, Mouse, Rat Predicted Reactivity: Bovine (89%), Horse (100%), Sheep (89%), Rabbit (100%), Dog (100%)	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

SLAM/CD150; Polyclonal Antibody; Phospho-SLAM/CD150 (Tyr327) Antibody; 4933415F16; AA177906; CD 150; CD150; CD150 antigen; CDw150; Estm51; Ipo 3; IPO-3; Ipo3; MGC151472; MGC151476; OTTHUMP00000025670; OTTHUMP00000060252; RGD1560634; Signaling lymphocytic activation molecule; Signaling lymphocytic activation molecule family member 1; isoform CRA_a; isoform CRA_b; Signaling lymphocytic activation molecule precursor; Slaf1; SLAF1_HUMAN; SLAM family; member 1; Slamf 1; SLAMF1; SLAMF1 protein; anti-SLAM/CD150 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Bovine (89%), Horse (100%), Sheep (89%), Rabbit (100%), Dog (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-SLAM/CD150 (Tyr327) Antibody detects endogenous levels of SLAM/CD150 only when phosphorylated at Tyr327. Tissue Specificity: Constitutively expressed on peripheral blood memory T-cells, T-cell clones, immature thymocytes and a proportion of B-cells, and is rapidly induced on naive T-cells after activation. Activated B-cells express isoform 1, isoform 3 and a cytoplasmic isoform. Isoform 4 is expressed in B-cells, primary T-cells, dendritic cells and macrophages. Isoform 4 is expressed in tumors of the central nervous system.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-SLAM/CD150 antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human SLAM/CD150 around the phosphorylation site of Tyr327.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylated on tyrosine residues by FYN.
Subunit Structure	Interacts (via cytoplasmic domain) with SH2D1A and SH2D1B; SH2D1A mediates association with FYN; SH2D1A binds to phosphorylated and not phosphorylated ITSM 1. Interacts (via cytoplasmic domain phosphorylated on tyrosine residues) with INPP5D and PTPN11; presence of SH2D1A facilitates binding to INPP5D. Interacts with MAP4K1. Interacts with PIK3C3, BECN1 and UVRAG; indicative for an association with PI3K complex II (PI3KC3-C2). (Microbial infection) Interacts with measles hemagglutinin protein.

Similarity	The ITSMs (immunoreceptor tyrosine-based switch motifs) with the consensus sequence T-X-Y-X-X-[VI] present in SLAM family receptors have overlapping specificity for activating and inhibitory SH2 domain-containing binding partners. Especially they mediate the interaction with the SH2 domain of SH2D1A and SH2D1B. For SLAMF1 a 'two-out-of-three-pronged' mechanism is proposed involving threonine (position -2), phosphorylated tyrosine (position 0) and valine/isoleucine (position +3). SH2D1A binding is mediated by either three 'prongs' (for high affinity binding involving ITSM 1) or a combination of any two also including non-phosphorylated Tyr-281 of ITSM 1 thus providing a positive feedback loop implicating SH2D1A-dependent recruitment of activating FYN. ITSM 2 needs to be phosphorylated on Tyr-327 for SH2D1A binding.
Subcellular Location	Cell membrane>Single-pass type I membrane protein. Note: Present on the surface of B-cells and T-cells. Located at the plasma membrane contacts between neighboring T-cells (PubMed:11806999). Secreted. Cell membrane. Note: Overexpressed isoform 4 is detected on the cell surface. In glioma cell lines endogenous isoform 4 is detected predominantly in the cytoplasm and colocalized with endoplasmic reticulum and Golgi markers.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
At 1/200 staining Human breast tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemisry)
At 1/200 staining Mouse liver tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



IHC (Immunohiostchemistry)
Staining Rat kidney tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



WB (Western Blot)
Western blot analysis of CD150 (Phospho-Tyr327) using EGF treated HepG2 whole cell lysates.-/+ means absence or presence of N peptide?¼non-phospho peptide) and P peptide(phospho peptide).

ADDITIONAL INFORMATION

Related Product Information for anti-SLAM/CD150 antibody	Self-ligand receptor of the signaling lymphocytic activation molecule (SLAM) family. 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. SLAMF1-induced signal-transduction events in T-lymphocytes are different from those in B-cells. Two modes of SLAMF1 signaling seem to exist: one depending on SH2D1A (and perhaps SH2D1B) and another in which protein-tyrosine phosphatase 2C (PTPN11)-dependent signal transduction operates. Initially it has been proposed that association with SH2D1A prevents binding to inhibitory effectors including INPP5D/SHIP1 and PTPN11/SHP-2. However, signaling is also regulated by SH2D1A which can simultaneously interact with and recruit FYN which subsequently phosphorylates and activates SLAMF1. Mediates IL-2-independent proliferation of activated T-cells during immune responses and induces IFN-gamma production (By similarity). Downstreaming signaling involves INPP5D, DOK1 and DOK2 leading to inhibited IFN-gamma production in T-cells, and PRKCQ, BCL10 and NFKB1 leading to increased T-cell activation and Th2 cytokine production (By similarity). Promotes T-cell receptor-induced IL-4 secretion by CD4 (+) cells (By similarity). Inhibits antigen receptor-mediated production of IFN-gamma, but not IL-2, in CD4 (-)/CD8 (-) T-cells (By similarity). Required for IL-4 production by germinal centers T follicular helper (T (Fh))cells (By similarity). May inhibit CD40-induced signal transduction in monocyte-derived dendritic cells. May play a role in allergic responses and may regulate allergen-induced Th2 cytokine and Th1 cytokine secretion (By similarity). In conjunction with SLAMF6 controls the transition between positive selection and the subsequent expansion and differentiation of the thymocytic natural killer T (NKT) cell lineage. Involved in the peripheral differentiation of indifferent natural killer T (iNKT) cells toward a regulatory NKT2 type (By similarity). In macrophages involved in down-regulation of IL-12, TNF-alpha and nitric oxide in response to lipopolysaccharide (LPS) (By similarity). In B-cells activates the ERK signaling pathway independently of SH2D1A but implicating both, SYK and INPP5D, and activates Akt signaling dependent on SYK and SH2D1A (By similarity). In B-cells also activates p38 MAPK and JNK1 and JNK2. In conjunction with CD84/SLAMF5 and SLAMF6 may be a negative regulator of the humoral immune response (By similarity). Involved in innate immune response against Gram-negative bacteria in macrophages; probably recognizes OmpC and/or OmpF on the bacterial surface, regulates phagosome maturation and recruitment of the PI3K complex II (PI3KC3-C2) leading to accumulation of PdtIns (3)P and NOX2 activity in the phagosomes. (Microbial infection) Acts as a receptor for Measles virus; also including isoform 4.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	9297047
NCBI GeneID	6504
UniProt Accession #	Q13291; Q5W172; Q9HBE8
Molecular Weight	335
NCBI Official Full Name	Signaling lymphocytic activation molecule
NCBI Official Synonym Full Names	signaling lymphocytic activation molecule family member 1
NCBI Official Symbol	SLAMF1
NCBI Official Synonym Symbols	SLAM; CD150; CDw150
NCBI Protein Information	signaling lymphocytic activation molecule; IPO-3
UniProt Protein Name	Signaling lymphocytic activation molecule
UniProt Gene Name	SLAMF1
UniProt Synonym Gene Names	SLAM
UniProt Entry Name	SLAF1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.