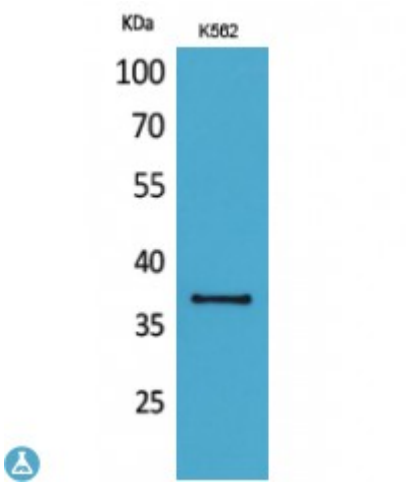
Anti-SLAM antibody



Description	Rabbit polyclonal to SLAM.

Model	STJ96644
Host	Rabbit
Applications	ELISA, IHC, WB
Immunogen	Synthesized peptide derived from human SLAM.
Immunogen Region	71-120 aa, region
Gene ID	6504
Gene Symbol	SLAMF1
Dilution range	WB 1:500-1:2000IHC-P 1:100-300ELISA 1:20000
Specificity	SLAM Polyclonal Antibody detects endogenous levels of SLAM protein.
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 .
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Signaling lymphocytic activation molecule CDw150 IPO-3 SLAM family member 1 CD antigen CD150

Molecular Weight	37 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:10903OMIM:603492
Alternative Names	Signaling lymphocytic activation molecule CDw150 IPO-3 SLAM family member 1 CD antigen CD150
Function	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 . 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 . Promotes T-cell receptor-induced IL-4 secretion by CD4(+) cells . Inhibits antigen receptor-mediated production of IFN-gamma, but not IL-2, in CD4(-)/CD8(-) T-cells . Required for IL-4 production by germinal centers T follicular helper (T(Fh))cells . May inhibit CD40-induced signal transduction in monocyte-derived dendritic cells . May play a role in a allergic responses and may regulate allergen-induced Th2 cytokine and Th1 cytokine secretion . 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 . In macrophages involved in down-regulation of IL-12, TNF-alpha and nitric oxide in response to lipopolysaccharide (LPS) . 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 . 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 . (Microbial infection) Acts as a receptor for measles virus; also including isoform 4 . 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 .
Sequence and Domain Family	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.
Cellular Localization	Cell membrane Isoform 3: Secreted Isoform 4: Cell membrane. Overexpressed isoform 4 is detected on the cell surface. In glioma cell lines endogenuous isoform 4 is detetced predominantly in the cytoplasm and colocalized with endoplasmic reticulum and Golgi markers.
Post-translational Modifications	Phosphorylated on tyrosine residues by FYN.