

Recombinant Mouse SLAM (CD150) (carrier-free)

Catalog# / Size	783402 / 10 µg 783404 / 25 µg 783406 / 100 µg 783408 / 500 µg
Regulatory Status	RUO
Other Names	Signaling lymphocytic activation molecule family member 1, Signaling lymphocytic activation molecule, SLAM, SLAM family member 1, SLAMF1, CD150
Description	<p>SLAM, also known as CD150, is a type I transmembrane glycoprotein, belonging to the member of the immunoglobulin superfamily and CD2 family. SLAM is expressed on thymocytes, T cell subsets, B cells, dendritic cells, macrophages, and hematopoietic stem cells. SLAM expression has been shown to be maintained on Th1 but not Th2 clones and at a relatively high level in T regulatory cells. The expression level of SLAM is upregulated in activated T cells and LPS/IFNγ-activated macrophages. It has shown that SLAM is a self-ligand receptor and it is involved in B cell co-stimulation, proliferation, immunoglobulin production, and signal transduction. The cytoplasmic domain of SLAM contains consensus tyrosine motifs, ITSM (immunoreceptor tyrosine-based switch motifs), which function as docking sites and interact with distinct SH2-containing molecules, including some tyrosine phosphatases, kinases, and adaptors. SLAM-associated protein (SAP/SH2D1A), as an adaptor molecule, regulates B cell differentiation. Engagement of SLAM by specific antibodies or soluble/membrane-bound forms of SLAM strongly enhances anti-CD40-induced B cell proliferation and Ig production. SLAM signaling is also important for T cell proliferation, IFNγ production and Th1 priming. Antibodies against SLAM have been shown to augment IFNγ production by Th1 cells, especially when co-stimulated through the TCR. SLAM is also required for IL-4 production by GC (germinal centers) T follicular helper cells and for TCR-induced IL-4 production by CD4 T cells. SLAM functions as a microbial sensor to control bacterial phagosomes in macrophages. Additionally, homotypic interactions of SLAM, recruiting SAP and Src kinase Fyn, are also essential for expansion and differentiation of the NKT lineage. Furthermore, SLAM interaction between invariant NKT (iNKT) cells and myeloid dendritic cells, along with antigen-driven TCR stimulation, is required for NKT2 differentiation. In combination with CD48, SLAM is a useful marker for hematopoietic stem cell studies.</p>

Product Details

Source	Mouse SLAM, amino acid (Thr25-Pro242) (Accession: #Q9QUM4.1), with a C-terminus 6His tag, was expressed in 293E cells.
Molecular Mass	The 224 amino acid recombinant protein has a predicted molecular mass of approximately 25kD. The DTT-reduced and non-reduced protein migrates at approximately 50 kD by SDS-PAGE. The predicted N-terminal amino acid is Thr.
Purity	>95%, as determined by Coomassie stained SDS-PAGE.
Formulation	0.22 µm filtered protein solution is in PBS pH7.2.
Endotoxin Level	Less than 0.1 EU per µg protein as determined by the LAL method.
Concentration	10 and 25 µg sizes are bottled at 200 µg/mL. 100 µg and larger sizes are lot-specific and bottled at the concentration indicated on the vial. To obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.
Storage & Handling	Unopened vial can be stored between 2°C and 8°C for up to 2 weeks, at -20°C for up to six months, or at -70°C or colder until the expiration date. For maximum results, quick spin vial prior to opening. The protein can be aliquoted and stored at -20°C or colder. Stock solutions can also be prepared at 50 - 100 µg/mL in appropriate sterile buffer, carrier protein such as 0.2 - 1% BSA or HSA can be added when preparing the stock solution. Aliquots can be stored between 2°C and 8°C for up to one week and stored at -20°C or colder for up to 3 months. Avoid repeated freeze/thaw cycles.
Activity	The ED ₅₀ is 0.13 - 0.75 µg/mL, as determined by the dose-dependent co-stimulation of IL-4 production in D10.G4.1 cells in the presence of anti-mouse CD3 ϵ (Cat. No. 100313).
Application	Bioassay

Application Notes

BioLegend carrier-free recombinant proteins provided in liquid format are shipped on blue ice. Our comparison testing data indicates that when handled and stored as recommended, the liquid format has equal or better stability and shelf-life compared to commercially available lyophilized proteins after reconstitution. Our liquid proteins are verified in-house to maintain activity after shipping on blue ice and are backed by our [100% satisfaction guarantee](#). If you have any concerns, contact us at tech@biolegend.com.

Antigen Details

Structure	Ig superfamily, CD2 family
Distribution	T subset (activated, memory and Th1 cells), B cells, dendritic cells, macrophages, hematopoietic stem cell.
Function	B cell co-stimulation, proliferation and Ig production; T cell proliferation and cytokine production; NKT differentiation.
Interaction	T subset (activated, memory, and Th1 cells), B cells, dendritic cells, macrophages, hematopoietic stem cell; SAP, Fyn.
Ligand/Receptor	SLAM (self-ligand)
Bioactivity	Recombinant mouse SLAM/CD150 induces IL-4 in D10.G4.1 cells in the presence of anti-mouse CD3 ϵ (Cat.No. 100313).
Cell Type	B cells, Dendritic cells, Macrophages, Monocytes, NK cells, NKT cells, T cells, Th1, Th2, Tregs
Biology Area	Cell Proliferation and Viability, Immunology, Stem Cells
Molecular Family	CD Molecules

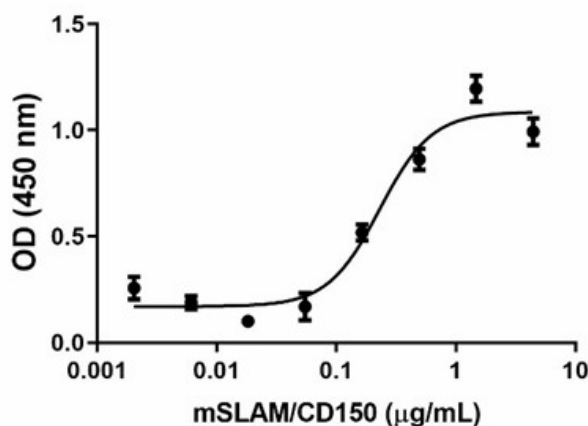
Antigen References

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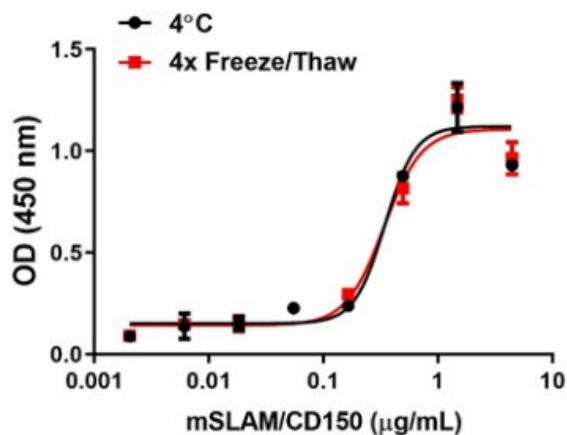
Gene ID

[27218](#)

Product Data



Recombinant mouse SLAM/CD150 induces IL-4 in D10.G4.1 cells in the presence of anti-mouse CD3 ϵ (Cat.No. 100313). The ED₅₀ for this effect is 0.13 – 0.75 µg/mL.



Stability Testing for Recombinant Mouse SLAM/CD150. Recombinant mouse SLAM/CD150 was aliquoted in PBS, pH7 at 0.2 mg/mL. One aliquot was frozen and thawed four times (4x Freeze/Thaws) and compared to the control that was kept at 4°C (control). The samples were tested for their ability to induce IL-4 in D10.G4.1 cells in the presence of anti-mouse CD3ε (Cat.No. 100313). The ED₅₀ for this effect is 0.13 – 0.75 µg/mL.

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