Mouse SLAM/CD150 Antibody

Monoclonal Rat IgG_{2A} Clone # 459911

Catalog Number: MAB4330

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse SLAM/CD150.
Source	Monoclonal Rat IgG_{2A} Clone # 459911
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse SLAM/CD150 Thr25-Pro242 Accession # Q9QUM4
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

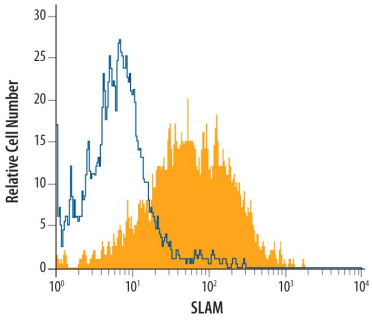
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	2.5 µg/10^6 cells	See Below
Mouse SLAM/CD150 Sandwich Immunoassay		**Reagent**
ELISA Capture	2-8 µg/mL	Mouse SLAM/CD150 Antibody (Catalog # MAB4330)
ELISA Detection	0.1-0.4 µg/mL	Mouse SLAM/CD150 Biotinylated Antibody (Catalog # BAF4330)
Standard		Recombinant Mouse SLAM/CD150 (Catalog # 4330-SL)
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

Flow Cytometry



Detection of SLAM/CD150 in Mouse Splenocytes by Flow Cytometry. Mouse splenocytes were treated for 2 days with 50 ng/mL PMA and 500 ng/mL Ca^{2+} ionomycin then stained with Mouse SLAM/CD150 Monoclonal Antibody (Catalog # MAB4330, filled histogram) or isotype control antibody (Catalog # MAB006, open histogram), followed by Allophycocyanin-conjugated Anti-Rat IgG $F(ab')_2$ Secondary Antibody (Catalog # F0113).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

The type I transmembrane glycoprotein Signaling Lymphocytic Activation Molecule (SLAM), also known as CD150, is the prototypic member of the SLAM subgroup of the CD2 protein family. CD2 family proteins function as adhesion molecules and modulators of the immune response (1). Mouse SLAM consists of a 218 amino acid (aa) extracellular domain (ECD) with two Ig-like domains, a 23 aa transmembrane segment, and a 78 aa cytoplasmic domain with three immunoreceptor tyrosine switch motifs (ITSM) (2). Alternate splicing generates an isoform with a substituted cytoplasmic domain (2). Within the ECD, mouse SLAM shares 58% and 83% aa sequence identity with human and rat SLAM, respectively. It is expressed as a 75 kDa molecule of which approximately 30 kDa is N-linked carbohydrate (2). SLAM is expressed on T cells, B cells, thymocytes, macrophages, dendritic cells, platelets, and hematopoietic stem cells (2-7). It is upregulated on activated B cells and $CD4^+$ and $CD8^+$ T cells, although it is downregulated on Th2 polarized cells (2, 3, 8). SLAM interacts homophilically with low affinity, and this interaction induces a Th0/Th1 response characterized by clonal expansion, production of IFN-γ, and increased cytolytic activity of $CD8^+$ T cells (2, 3, 9-11). SLAM ligation also promotes B cell activation, allergen-induced eosinophil and mast cell activation, and macrophage responsiveness to LPS (4, 8, 12). In humans, SLAM functions as a cellular entry receptor for measles virus (13, 14).

References:

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