

DESCRIPTION

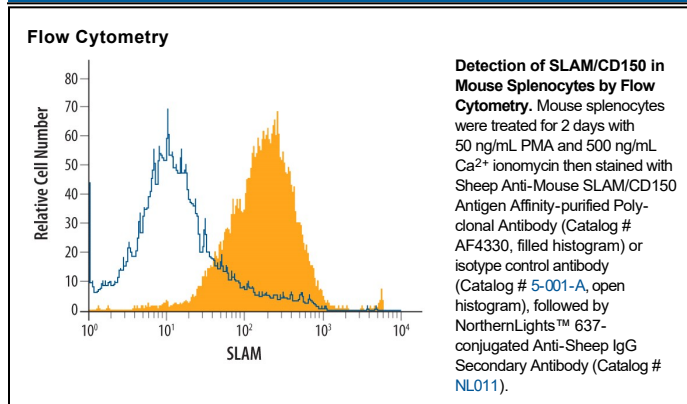
Species Reactivity	Mouse
Specificity	Detects mouse SLAM/CD150 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human SLAM is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant 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
Western Blot	0.1 µg/mL	Recombinant Mouse SLAM/CD150 (Catalog # 4330-SL)
Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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. <ul style="list-style-type: none"> • 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.

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:

1. Ma, C.S. *et al.* (2007) *Annu. Rev. Immunol.* **25**:337.
2. Castro, A.G. *et al.* (1999) *J. Immunol.* **163**:5860.
3. Cocks, B.G. *et al.* (1995) *Nature* **376**:260.
4. Wang, N. *et al.* (2004) *J. Exp. Med.* **199**:1255.
5. Hahm, B. *et al.* (2004) *Virology* **323**:292.
6. Nanda, N. *et al.* (2005) *Blood* **106**:3028.
7. Kiel, M.J. *et al.* (2005) *Cell* **121**:1109.
8. Punnonen, J. *et al.* (1997) *J. Exp. Med.* **185**:993.
9. Mavaddat, N. *et al.* (2000) *J. Biol. Chem.* **275**:28100.
10. Aversa, G. *et al.* (1997) *J. Immunol.* **158**:4036.
11. Mehrlé, S. *et al.* (2008) *Mol. Immunol.* **45**:796.
12. Wang, N. *et al.* (2006) *Am. J. Respir. Cell Mol. Biol.* **35**:206.
13. Tatsuo, H. *et al.* (2000) *Nature* **406**:893.
14. Hsu, E.C. *et al.* (2001) *Virology* **279**:9.