

**DESCRIPTION**

<b>Source</b>	Chinese Hamster Ovary cell line, CHO-derived SLAM/CD150 protein		
	Cynomolgus Monkey/Rhesus Macaque SLAM/CD150 (Tyr23-Lys236) Accession # XP_005541298.1	IEGRMD	Human IgG <sub>1</sub> (Pro100-Lys330)
	N-terminus		C-terminus
<b>N-terminal Sequence Analysis</b>	Tyr23 & Thr25		
<b>Structure / Form</b>	Disulfide-linked homodimer		
<b>Predicted Molecular Mass</b>	51 kDa		

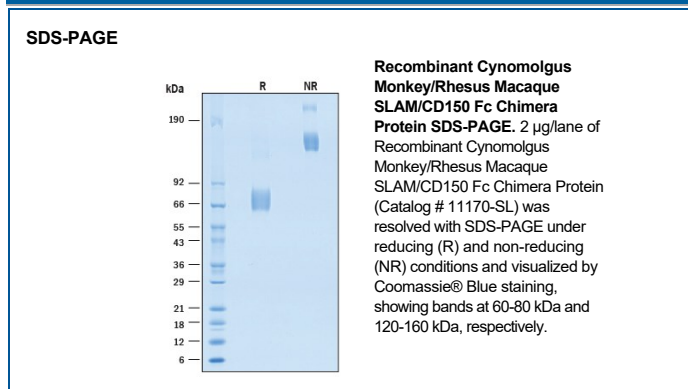
**SPECIFICATIONS**

<b>SDS-PAGE</b>	60-80 kDa, under reducing conditions.
<b>Activity</b>	Measured by its ability to co-stimulate IL-4 secretion by D10.G4.1 mouse helper T cells in the presence of anti-CD3. The ED <sub>50</sub> for this effect is 0.200-2.00 µg/mL.
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the protein by the LAL method.
<b>Purity</b>	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 250 µg/mL in PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**DATA**



## BACKGROUND

Signaling lymphocytic activation molecule (SLAM), also known as SLAMF1 and CD150, is the founding member of the SLAM subfamily of the CD2 protein family (1, 2). SLAM is a single-pass type I membrane glycoprotein that functions as an adhesion molecule and plays an active role in the regulation of innate and adaptive immunity (1, 2, 4). Mature SLAM consists of an extracellular domain (ECD) containing an Ig-like V-type domain and an Ig-like C2-type domain, a helical transmembrane domain, and a cytoplasmic tail containing 2 immunoreceptor tyrosine-based switch motifs (ITSM) (3, 4). The ECD of cynomolgus SLAM shares 97% amino acid identity with human SLAM. In human, several isoforms resulting from alternative splicing have been identified with functional diversity (4). SLAM is expressed on T cells, B cells, thymocytes, macrophages, dendritic cells, platelets, and hematopoietic stem cells, and it is up-regulated on activated B cells and CD4+ and CD8+ T cells (4-6). SLAM interacts homophilically with low affinity, and this interaction induces a Th0/Th1 phenotype in CD8+ T cells that is characterized by clonal expansion, production of IFN-gamma, and increased cytolytic activity (7, 8). SLAM also plays a role in activation of the PI3K-Akt signaling pathway through its association with the adapter molecule SAP (9). In humans, SLAM functions as a cellular entry receptor for measles virus (10, 11). SLAM deregulation is associated with genomic complexity and independently predicts a worse outcome in chronic lymphocytic leukemia (CLL) (12).

## References:

1. Yurchenko, M. *et al.* (2018) *J. Cell. Biol.* **217**:1411.
2. Pellegrini, J. *et al.* (2021) *Autophagy*. **17**:2629.
3. Wang, N. *et al.* (2015) *Front. Immunol.* **6**:158.
4. Gordijenko, I. (2019) *Clinical Immunol.* **204**:14.
5. Calpe, S. *et al.* (2008) *Adv Immunol.* **97**:177.
6. Wang, N. *et al.* (2004) *J. Exp. Med.* **199**:1255.
7. Mavaddat, N. *et al.* (2000) *J. Biol. Chem.* **275**:28100.
8. Mehrle, S. *et al.* (2008) *Mol. Immunol.* **45**:796.
9. Yurchenko, M.Y. *et al.* (2005) *Exp Oncol.* **27**:24.
10. Hsu, E.C. *et al.* (2001) *Virology* **279**:9.
11. Gonçalves-Carneiro, D. *et al.* (2017) *J Virol.* **91**:e02255.
12. Gian, M.R. *et al.* (2021) *Br. J. Haematol.* **192**:1068.