Data Sheet (Cat.No.TMPY-01016)

TargetMol

SLAM/CD150 Protein, Human, Recombinant (His)

General Information

Synonyms:	CDw150;CD150;signaling lymphocytic activation molecule family member 1;SLAM
Protein Construction:	A DNA sequence encoding the human SLAM (NP_003028.1) precursor (Met 1-Pro 258) with a C-terminal polyhistidine tag was expressed. Predicted N terminal: Ala 21
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q13291-1
Molecular Weight:	25.8 kDa (predicted); 45-50 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Measured by its ability to bind biotinylated recombinant human SH2D1A in a functional ELISA.
Purity:	> 97 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

CD150/signaling lymphocytic activation molecule (SLAM) is a cell surface sialylated phosphoglycoprotein and belongs to the CD2 subset of the Ig superfamily of type I transmembrane glycoproteins. The CD150 receptor is expressed on thymocytes, activated and memory T cells, B cells, platelets, natural killer T cells, and mature dendritic cells, and is also detected on tumor cells of Hodgkin's lymphoma (HL) and diffuse large B-cell lymphoma with an activated B cell phenotype. Additionally, it is the immune cell receptor for measles virus (MV). As a self-

ligand, CD150 performs diverse immunologic functions including T/B-cell costimulation, induction of interferon γ (IFN-γ) in Th1 T-cell clones, redirection of Th2 clones to a Th1 or Th0 phenotype, and inhibition of apoptosis in B cells. Furthermore, CD150 was shown to be the second receptor for measles virus in addition to CD46, and the distribution of SLAM on various cell lines is consistent with their susceptibility to clinical isolates of measles virus.

Reference

Tatsuo H,et al.(2002) The morbillivirus receptor SLAM (CD150). Microbiol Immunol. 46(3): 135-42.
Sidorenko SP,et al.(2003)The dual-function CD150 receptor subfamily: the viral attraction. Nat Immunol. 4(1): 19-24.
Yurchenko MY,et al.(2010) CD150 regulates JNK1/2 activation in normal and Hodgkin's lymphoma B cells. Immunol Cell Biol. 88(5): 565-74.
Leonard VH,et al.(2010) Measles virus selectively blind to signaling lymphocytic activation molecule (SLAM ; CD150) is attenuated and induces strong adaptive immune responses in rhesus monkeys. J Virol. 84(7): 3413-20.