

SLAMF6 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P76076
Synonyms:	SLAM Family Member 6; Activating NK Receptor; NK-T-B-Antigen; NTB-A; CD352; SLAMF6; KALI
Species:	Mouse
Source:	HEK293
Accession:	Q9ET39 (E31-N239)
Gene ID:	30925
Molecular Weight:	The protein migrates as an approximately 28-50 kDa band under reducing SDS-PAGE due to glycosylation.

PROPERTIES

AA Sequence	<pre> E V S Q S S S D P Q L M N G V L G E S A V L P L K L P A G K I A N I I I W N Y E W E A S Q V T A L V I N L S N P E S P Q I M N T D V K K R L N I T Q S Y S L Q I S N L T M A D T G S Y T A Q I T T K D S E V I T F K Y I L R V F E R L G N L E T T N Y T L L L E N G T C Q I H L A C V L K N Q S Q T V S V E W Q A T G N I S L G G P N V T I F W D P R N S G D Q T Y V C R A K N A V S N L S V S V S T Q S L C K G V L T N P P W N </pre>
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized recombinant mouse SLAMF6 at 2 µg/mL (100 µL/well) can bind biotinylated Human SH2D1A. The ED ₅₀ for this effect is 24.13 ng/mL.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

The SLAMF6 protein functions as a self-ligand receptor within the signaling lymphocytic activation molecule (SLAM) family, participating in homo- or heterotypic cell-cell interactions that modulate the activation and differentiation of various immune cells, contributing to the regulation and coordination of both innate and adaptive immune responses. The activities of SLAMF6 are intricately controlled by the presence or absence of small cytoplasmic adapter proteins, including SH2D1A/SAP and/or SH2D1B/EAT-2. Specifically, in natural killer (NK) cells expressing high surface densities of natural cytotoxicity receptors, SLAMF6 triggers cytolytic activity and implicates positive signaling that involves the phosphorylation of VAV1. Furthermore, in conjunction with SLAMF1, SLAMF6 controls the transition between positive selection and the subsequent expansion and differentiation of the thymocytic natural killer T (NKT) cell lineage. The protein also promotes T cell differentiation into a helper T-cell Th17 phenotype, leading to increased IL-17 secretion, with its costimulatory activity requiring SH2D1A. Additionally, SLAMF6, in association with SLAMF1 and CD84/SLAMF5, may act as a negative regulator of the humoral immune response. In the absence of SH2D1A/SAP, SLAMF6 transmits negative signals to CD4(+) T-cells and NKT cells, negatively regulating germinal center formation by inhibiting T-cell:B-cell adhesion, likely involving increased association with PTPN6/SHP-1 via ITSMs. However, conflicting reports suggest its role in mediating T-cell adhesion, participating in stable T-cell:B-cell interactions, and maintaining B-cell tolerance in germinal centers to prevent autoimmunity. Furthermore, SLAMF6 is implicated in the regulation of autoimmunity, and isoform 3 may act as a suppressor of pathogenic T-cell proliferation. The protein forms homodimers and interacts with PTN6, PTN11, and SH2D1A/SAP upon phosphorylation.

Caution: Product has not been fully validated for medical applications. For research use only.

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