

SLAMF6 Protein, Cynomolgus (HEK293, His)

Cat. No.:	HY-P700828
Synonyms:	ANK-T-B-antigen; NTB-A; CD352; SLAMF6; KALI; Ly108; NK-T-B-antigen; KAL1b; SF2000
Species:	Cynomolgus
Source:	HEK293
Accession:	G7NWD4 (V20-K225)
Gene ID:	102137667
Molecular Weight:	37-50 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/ μg , determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ in ddH ₂ O.
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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