Proteins



Product Data Sheet

SLAMF6 Protein, Human (HEK293, His-Avi)

Cat. No.: HY-P72415

Synonyms: SLAM Family Member 6; Activating NK Receptor; NK-T-B-Antigen; NTB-A; CD352; SLAMF6; KALI

Species: HEK293 Source:

Q96DU3-1 (Q22-K225) Accession:

Gene ID: 114836 35-50 kDa Molecular Weight:

PROPERTIES

QSSLTPLMVN GILGESVTLP LEFPAGEKVN FITWLFNETS LAFIVPHETK SPEIHVTNPK QGKRLNFTQS YSLQLSNLKM EDTGSYRAQI STKTSAKLSS YTLRILRQLR NIQVTNHSQL FQNMTCELHL TCSVEDADDN VSFRWEALGN TLSSQPNLTV SWDPRISSEO DYTCIAENAV SNLSFSVSAQ KLCEDVKIQY

TDTK

Appearance

Lyophilized powder.

Formulation

Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.

Endotoxin Level

<1 EU/ μ g, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than $100 \, \mu g/mL$ in ddH_2O . 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

SLAMF6, a self-ligand receptor within the signaling lymphocytic activation molecule (SLAM) family, plays a crucial role in modulating the activation and differentiation of diverse immune cells, contributing to the intricate regulation and coordination of both innate and adaptive immune responses. The activities of SLAMF6 are finely controlled by the presence or absence of small cytoplasmic adapter proteins, such as SH2D1A/SAP and/or SH2D1B/EAT-2. Notably, SLAMF6 triggers cytolytic activity specifically in natural killer (NK) cells expressing high surface densities of natural cytotoxicity receptors and engages positive signaling in NK cells, involving the phosphorylation of VAV1 and dependence on SH2D1B rather than

SH2D1A. In conjunction with SLAMF1, SLAMF6 governs the transition and differentiation of the thymocytic natural killer T (NKT) cell lineage. Additionally, SLAMF6 promotes T-cell differentiation into a Th17 phenotype, leading to increased IL-17 secretion, and acts in concert with SLAMF1 and CD84/SLAMF5 as a potential negative regulator of the humoral immune response. Furthermore, in the absence of SH2D1A/SAP, SLAMF6 can transmit negative signals to CD4(+) T-cells and NKT cells, negatively regulating germinal center formation and potentially contributing to B-cell tolerance in germinal centers while preventing autoimmunity. SLAMF6 exists as a homodimer and interacts with PTN6 and PTN11, as well as with SH2D1A/SAP and SH2D1B/EAT2, with both adapter proteins able to associate with the same SLAMF6 molecule, mediated by ITSM 2.

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

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA

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