

CD229/SLAMF3 Protein, Human (HEK293, His)

Cat. No.:	HY-P72465
Synonyms:	CD229; cell-surface molecule Ly-9; hly9; Ly9; SLAMF3; T-lymphocyte surface antigen Ly-9
Species:	Human
Source:	HEK293
Accession:	Q9HBG7 (K48-K454)
Gene ID:	4063
Molecular Weight:	Approximately 75 kDa

PROPERTIES

AA Sequence

K D S A P T V V S G	I L G G S V T L P L	N I S V D T E I E N	V I W I G P K N A L
A F A R P K E N V T	I M V K S Y L G R L	D I T K W S Y S L C	I S N L T L N D A G
S Y K A Q I N Q R N	F E V T T E E E F T	L F V Y E Q L Q E P	Q V T M K S V K V S
E N F S C N I T L M	C S V K G A E K S V	L Y S W T P R E P H	A S E S N G G S I L
T V S R T P C D P D	L P Y I C T A Q N P	V S Q R S S L P V H	V G Q F C T D P G A
S R G G T T G E T V	V G V L G E P V T L	P L A L P A C R D T	E K V V W L F N T S
I I S K E R E E A A	T A D P L I K S R D	P Y K N R V W V S S	Q D C S L K I S Q L
K I E D A G P Y H A	Y V C S E A S S V T	S M T H V T L L I Y	R R L R K P K I T W
S L R H S E D G I C	R I S L T C S V E D	G G N T V M Y T W T	P L Q K E A V V S Q
G E S H L N V S W R	S S E N H P N L T C	T A S N P V S R S S	H Q F L S E N I C S
G P E R N T K			

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 ddH₂O. 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 CD229/SLAMF3 Protein is a self-ligand receptor that belongs to the signaling lymphocytic activation molecule (SLAM) family.

It functions as a modulator of immune cell activation and differentiation through homo- or heterotypic cell-cell interactions. This receptor plays a crucial role in regulating both innate and adaptive immune responses. The presence or absence of small cytoplasmic adapter proteins, SH2D1A/SAP and/or SH2D1B/EAT-2, controls its activities. CD229/SLAMF3 is involved in adhesion reactions between T lymphocytes and accessory cells through homophilic interactions. It promotes the differentiation of T-cells into a helper T-cell Th17 phenotype, leading to increased secretion of IL-17, with the costimulatory activity requiring SH2D1A. Furthermore, it facilitates the recruitment of RORC to the IL-17 promoter. CD229/SLAMF3 may also function as a negative regulator of the immune response, contributing to the maintenance of peripheral cell tolerance. It can inhibit autoantibody responses and IFN-gamma secretion by CD4(+) T-cells. Additionally, it is involved in regulating the size of thymic innate CD8(+) T-cells and the development of invariant natural killer T (iNKT) cells. CD229/SLAMF3 interacts with SH2D1A, SH2D1B, INPP5D, and PTPN11, with the interaction with PTPN11 being blocked by SH2D1A.

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

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