

## CD229/SLAMF3 Protein, Mouse (407a.a, HEK293, His)

Cat. No.:	HY-P72464
Synonyms:	CD229; cell-surface molecule Ly-9; hly9; Ly9; SLAMF3; T-lymphocyte surface antigen Ly-9
Species:	Mouse
Source:	HEK293
Accession:	Q4VBG4 (K48-F454)
Gene ID:	17085
Molecular Weight:	65-75 kDa

### PROPERTIES

#### AA Sequence

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K E T P P T V I S G   M L G G S V T F S L   N I S K D A E I E H   I T W N C P P K A L
A L V S Y K K D I T   I L D K G Y N G R L   K V S E D G Y S L Y   M S N L T K S D S G
S Y Y A Q I N Q K N   V T L T T N K E F T   L H I Y E K L Q K P   Q I I V E S V T P S
D T D S C T F T L I   C T V K G T K D S V   Q Y S W T R E D T H   L N T Y D G S H T L
R V S Q S V C D P D   L P Y T C K A W N P   V S Q N S S Q P V R   I W Q F C T G A S R
R K T A A G K T V V   G I L G E P V T L P   L E F R A T R A T K   N V V W V F N T S V
I S Q E R R G A A T   A D S R R K P K G S   E E R R V R T S D Q   D Q S L K I S Q L K
M E D A G P Y H A Y   V C S E A S R D P S   V R H F T L L V Y K   R L E K P S V T N S
P V H M M N G I C K   V V L T C S V D G G   G N N V T Y T W M P   L Q N K A V M S Q G
K S H L N V S W E S   G E H L P N F T C T   A H N P V S N S S S   Q F S S G T I C S G
P E R N K R F
  
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**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<sub>2</sub>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 CD229/SLAMF3 protein serves as a self-ligand receptor within the signaling lymphocytic activation molecule (SLAM)

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family, influencing immune cell activation and differentiation through homo- or heterotypic cell-cell interactions. These interactions, regulated by the presence or absence of cytoplasmic adapter proteins such as SH2D1A/SAP and/or SH2D1B/EAT-2, play a crucial role in coordinating both innate and adaptive immune responses. CD229's involvement extends to adhesion reactions between T lymphocytes and accessory cells via homophilic interaction. Additionally, it contributes to T-cell differentiation, promoting a Th17 phenotype with increased IL-17 secretion, a process dependent on the presence of SH2D1A. CD229 also plays a role in maintaining peripheral cell tolerance by acting as a negative regulator of the immune response, potentially disabling autoantibody responses and inhibiting IFN-gamma secretion by CD4(+) T-cells. Moreover, it may negatively regulate the size of thymic innate CD8(+) T-cells and the development of invariant natural killer T (iNKT) cells. Furthermore, CD229 can enhance natural killer (NK) cell activation, and it interacts with SH2D1A, INPP5D, and PTPN11, with the latter interaction being blocked by SH2D1A.

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**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](mailto:tech@MedChemExpress.com)

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