**Proteins** 



## **Product** Data Sheet

# CD229/SLAMF3 Protein, Human (HEK293, His-Avi)

Cat. No.: HY-P78487

Synonyms: SLAMF3; CD229; LY9; Al893573; Lgp100; T100

Species: Human **HEK293** Source:

Accession: Q9HBG7 (K48-K454)

Gene ID: 4063 **Molecular Weight:** 70-80 kDa

#### **PROPERTIES**

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ in ddH <sub>2</sub> 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

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.

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