10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# CS1/CRACC/SLAMF7

Catalog # PVGS1641

## Product Information

| | |
|---|---|
| **Primary Accession** | Q9NQ25 |
| **Species** | Human |
| **Sequence** | Ser23-Met226 |
| **Purity** | > 95% as analyzed by SDS-PAGE<br>> 95% as analyzed by HPLC |
| **Endotoxin Level** | ≤ 1 EU/ μg of protein by LAL method |
| **Biological Activity** | Immobilized SLAMF7, His & Avi Tag at 1.0 ug/ml (100 ul/Well). Dose response curve for Elotuzumab with the $EC_{50}$ of 42.6 ng/ml determined by ELISA. |
| **Expression System** | Expi293 |
| **Formulation** | Lyophilized from a 0.22 μm filtered solution in PBS, pH 7.4. Normally 5 % trehalose is added as protectant before lyophilization. |
| **Reconstitution** | It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in distilled water up to 100 μg/ml. |
| **Storage & Stability** | Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Avoid repeated freeze-thaw cycles. |

## Additional Information

| | |
|---|---|
| **Gene ID** | 57823 |
| **Other Names** | SLAM family member 7, CD2 subset 1, CD2-like receptor-activating cytotoxic cells, CRACC, Membrane protein FOAP-12, Novel Ly9, Protein 19A, CD319, SLAMF7, CS1 |
| **Target Background** | CD2-like receptor activating cytotoxic cells (CRACC), also known as CS1, novel Ly9, SLAMF7, and CD319, is a 65-75 kDa type I transmembrane glycoprotein in the SLAM subgroup of the CD2 family, a self-ligand receptor of the signaling lymphocytic activation molecule (SLAM) family. SLAM receptors triggered by homo- or heterotypic cell-cell interactions are modulating the activation and differentiation of a wide variety of immune cells and thus are involved in the regulation and interconnection of both innate and adaptive immune responses. |

## Protein Information

| | |
|---|---|
| **Name** | SLAMF7 |
| **Synonyms** | CS1 |
| **Function** | Self-ligand receptor of the signaling lymphocytic activation molecule (SLAM) family. SLAM receptors triggered by homo- or heterotypic cell-cell interactions are modulating the activation and differentiation of a wide variety of immune cells and thus are involved in the regulation and interconnection of both innate and adaptive immune response. Activities are controlled by presence or absence of small cytoplasmic adapter proteins, SH2D1A/SAP and/or SH2D1B/EAT-2. Isoform 1 mediates NK cell activation through a SH2D1A-independent extracellular signal-regulated ERK-mediated pathway (PubMed:11698418). Positively regulates NK cell functions by a mechanism dependent on phosphorylated SH2D1B. Downstream signaling implicates PLCG1, PLCG2 and PI3K (PubMed:16339536). In addition to heterotypic NK cells-target cells interactions also homotypic interactions between NK cells may contribute to activation. However, in the absence of SH2D1B, inhibits NK cell function. Also acts inhibitory in T-cells (By similarity). May play a role in lymphocyte adhesion (PubMed:11802771). In LPS-activated monocytes negatively regulates production of pro-inflammatory cytokines (PubMed:23695528). |
| **Cellular Location** | Membrane; Single-pass type I membrane protein. |
| **Tissue Location** | Expressed in spleen, lymph node, peripheral blood leukocytes, bone marrow, small intestine, stomach, appendix, lung and trachea. Expression was detected in NK cells, activated B-cells, NK- cell line but not in promyelocytic, B-, or T-cell lines. Expressed in monocytes. Isoform 3 is expressed at much lower level than isoform 1 |