

CRACC/SLAMF7 Protein, Rhesus Macaque (HEK293, His)

Cat. No.:	HY-P72770
Synonyms:	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
Species:	Rhesus Macaque
Source:	HEK293
Accession:	XP_005541294.1 (S23-M226)
Gene ID:	102133710
Molecular Weight:	30-50 kDa

PROPERTIES

AA Sequence	<pre> S G S V K E L V G S I G G A V T F P L K S E V K Q V D S I V W T F N T T T L V T I Q P E G G P M I V T Q N R N K E R V H F P D G G Y S L K L S K L K K N D S G I Y N V E I Y S S S L Q D P F T R K Y V L R V Y E H L S K P K V T M G L Q S N K N G T C V T N L T C H M E H G E E D V I Y T W K A L G Q A V N E S H N G S I L P I S W R W G E S D M T F I C T V R N P V S S N S S S P I L A R K L C E G A A D D S D S S M </pre>
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 ₂ 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	<p>The CRACC/SLAMF7 protein functions as a self-ligand receptor within the signaling lymphocytic activation molecule (SLAM) family. Through homo- or heterotypic cell-cell interactions, SLAM receptors modulate the activation and differentiation of a diverse array of immune cells, playing a crucial role in the regulation and coordination of both innate and adaptive immune responses. The activities of CRACC/SLAMF7 are intricately controlled by the presence or absence of small cytoplasmic adapter proteins, SH2D1A/SAP, and/or SH2D1B/EAT-2. The protein mediates natural killer (NK) cell activation through a SH2D1A-independent extracellular signal-regulated ERK-mediated pathway and positively regulates NK cell functions in a</p>
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mechanism dependent on the adapter SH2D1B. Additionally, homotypic interactions between NK cells may contribute to activation, but in the absence of SH2D1B, CRACC/SLAMF7 inhibits NK cell function. It also exerts inhibitory effects in T-cells and may play a role in lymphocyte adhesion. In LPS-activated monocytes, CRACC/SLAMF7 negatively regulates the production of pro-inflammatory cytokines. The protein further interacts with various signaling molecules, including SH2D1B, PTPN6/SHP-1, PTPN11/SHP-2, INPP5D/SHIP1, CSK, and FYN, highlighting its involvement in diverse cellular processes and molecular interactions.

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

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