Recombinant Human CRACC/SLAMF7 Fc Chimera

Catalog Number: 1906-SF

DESCRIPTION

Source

Human embryonic kidney cell, HEK293-derived human CRACC/SLAMF7 protein

Human SLAMF7 (Ser23-Met226) Accession # Q9NQ25	IEGRMD	Human IgG_1 (Pro100-Lys330)

N-terminus C-terminus

N-terminal Sequence Analysis	Ser23
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	49 kDa

SPECIFICATIONS

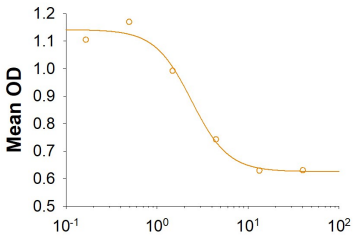
SDS-PAGE	65-75 kDa, reducing conditions
Activity	Measured by its ability to inhibit anti-CD3 antibody induced IFN-gamma secretion by human peripheral blood mononuclear cells (PBMC). The ED_{50} for this effect is 1-6 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 100 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, ≤ -20 °C under sterile conditions after reconstitution.

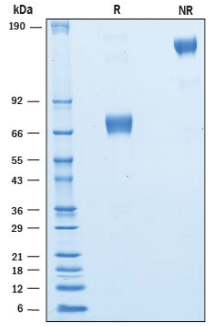
DATA

Bioactivity



Recombinant Human CRACC/SLAMF7 Fc Chimera (Catalog # 1906-SF) inhibits anti-CD3 antibody induced IFN-gamma secretion by human peripheral blood mononuclear cells. The ED_{50} for this effect is 2-10 µg/mL.

SDS-PAGE



2 µg/lane of Recombinant Human CRACC/SLAMF7 was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 65-75 kDa and 130-150 kDa, respectively.

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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 (1). Mature human CRACC consists of a 204 amino acid (aa) extracellular domain (ECD) with one Ig-like V-set domain and one Ig-like C2-set domain, a 21 aa transmembrane segment, and an 88 aa cytoplasmic domain with one immunoreceptor tyrosine-based switch motif (ITSM) (2, 3). Within the ECD, human CRACC shares 54% and 52% aa sequence identity with mouse and rat CRACC, respectively. There are seven known isoforms of CRACC which are distinguished by deletions and/or substitutions in both their ECD and cytoplasmic domains. CRACC is expressed on the surface of NK cells, $CD8^+$ T cells, activated B cells, and mature dendritic cells (4, 5). Its homophilic interaction induces NK, CTL, and B cell activation (4-7). In human NK cells, activated CRACC transmits signals following association with the adaptor protein EAT-2 (8).

References:

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