

DESCRIPTION

Source Chinese Hamster Ovary cell line, CHO-derived human CRACC/SLAMF7 protein
Ser23-Met226, With a C-terminal 6-His tag & Avi-tag
Accession # Q9NQ25.1

N-terminal Sequence Analysis Ser 23

Structure / Form Biotinylated via Avi-tag

Predicted Molecular Mass 25 kDa

SPECIFICATIONS

SDS-PAGE 44-52 kDa, under reducing conditions

Activity Measured by its binding ability in a functional ELISA.
Biotinylated Recombinant Human CRACC/SLAMF7 His-tag (Catalog # AVI11533) binds Human CRACC/SLAMF7 Antibody (Catalog # MAB19061) with an ED₅₀ of 5.00-60.0 ng/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 with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 500 µg/mL in PBS.

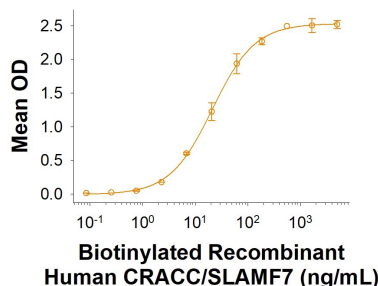
Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

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 to -70 °C under sterile conditions after reconstitution.

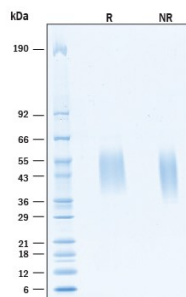
DATA

Binding Activity



Biotinylated Recombinant Human CRACC/SLAMF7 His-tag Protein Binding Activity. Biotinylated Recombinant Human CRACC/SLAMF7 His-tag Protein (Catalog # AVI11533) binds Human CRACC/SLAMF7 Antibody (Catalog # MAB19061) with an ED₅₀ of 5.00-60.0 ng/mL.

SDS-PAGE



Biotinylated Recombinant Human CRACC/SLAMF7 His-tag Protein SDS-PAGE. 2 µg/lane of Biotinylated Recombinant Human CRACC/SLAMF7 His-tag Protein (Catalog # AVI11533) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 44-52 kDa, under reducing conditions.

BACKGROUND

CD2-like receptor activating cytotoxic cells (CRACC), also known as CS1, novel Ly9, SLAMF7, and CD319, is a type I transmembrane glycoprotein in the SLAM subgroup of the CD2 family (1). Mature human CRACC consists of an extracellular domain (ECD) with one Ig-like V-set domain and one Ig-like C2-set domain, a transmembrane segment, and a cytoplasmic domain with one immunoreceptor tyrosine-based switch motif (ITSM) (2, 3). Within the ECD, human CRACC shares 54% and 52% amino acid 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). Our Avi-tag Biotinylated Recombinant Human CRACC/SLAMF7 features biotinylation at a single site contained within the Avi-tag, a unique 15 amino acid peptide. Protein orientation will be uniform when bound to streptavidin-coated surface due to the precise control of biotinylation and the rest of the protein is unchanged so there is no interference in the protein's bioactivity.

References:

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2. Tovar, V. *et al.* (2002) *Immunogenetics* **54**:394.
3. Murphy, J.J. *et al.* (2002) *Biochem. J.* **361**:431.
4. Bouchon, A. *et al.* (2001) *J. Immunol.* **167**:5517.
5. Lee, J.K. *et al.* (2007) *J. Immunol.* **179**:4672.
6. Kumaresan, P.R. *et al.* (2002) *Mol. Immunol.* **39**:1.
7. Stark, S. and C. Watzl (2006) *Int. Immunol.* **18**:241.
8. Tassi, H. and M. Colonna (2005) *J. Immunol.* **175**:7996.