

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CRACC/SLAMF7 in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 5% cross-reactivity with recombinant human CRACC is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant mouse CRACC/SLAMF7 Ala22-Gly224 Accession # Q8BHK6
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse CRACC/SLAMF7 (Catalog # 4628-SF)
Flow Cytometry	0.25 µg/10 ⁶ cells	Mouse DX5 ⁺ splenocytes
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

CD2-like receptor activating cytotoxic cells (CRACC), also known as CS1, novel Ly9, SLAMF7, and CD319, is a 66 kDa type I transmembrane glycoprotein in the SLAM subgroup of the CD2 family (1). Mature mouse CRACC consists of a 202 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 two immunoreceptor tyrosine-based switch motifs ITSMs (2, 3). Within the ECD, mouse CRACC shares 53% aa sequence identity with human CRACC. It shares 19%-35% aa sequence identity with comparable regions of other mouse SLAM proteins including 2B4, BLAME, CD2F-10, CD84, CD229, NTB-A, and SLAM/CD150. Additional isoforms of mouse CRACC are distinguished by deletions and/or substitutions in their cytoplasmic domains. CRACC is expressed on the surface of NK cells, CD8⁺ T cells, activated B cells, and mature dendritic cells (4, 5). It interacts homophilically to induce 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:

1. Veillette, A. (2006) *Immunol. Rev.* **214**:22.
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.