

CRTAM (C-12): sc-390581

BACKGROUND

Class-I MHC-restricted T cell-associated molecule (CRTAM) is a receptor that is primarily expressed on activated cytotoxic lymphocytes where it may play a role in their adhesion, interaction or migration. It is one of the most highly expressed surface markers detected on activated human NKT cells and CD8 T cells, suggesting its use as a diagnostic tool in various human viral and autoimmune diseases. CRTAM binds Nectin-like protein 2 (Nect2), which is involved in IL-22 expression regulation. This Nect2/CRTAM molecular pair may regulate cell/cell interactions and may play a role in neuronal interactions. CRTAM is also highly expressed in Purkinje neurons in the cerebellum.

REFERENCES

- Kennedy, J., et al. 2000. A molecular analysis of NKT cells: identification of a class-I-restricted T cell-associated molecule (CRTAM). *J. Leukoc. Biol.* 67: 725-734.
- Shingai, T., et al. 2003. Implications of Nect2/IGSF4/RA175/SgIGSF/TSLC1/SynCAM1 in cell-cell adhesion and transmembrane protein localization in epithelial cells. *J. Biol. Chem.* 278: 35421-35427.
- Boles, K.S., et al. 2005. The tumor suppressor TSLC1/Nect2 triggers NK cell and CD8⁺ T cell responses through the cell surface receptor CRTAM. *Blood* 106: 779-786.
- Galibert, L., et al. 2005. Nectin-like protein 2 defines a subset of T cell zone dendritic cells and is a ligand for class-I-restricted T cell-associated molecule. *J. Biol. Chem.* 280: 21955-21964.
- Patiño-Lopez, G., et al. 2005. Human class-I-restricted T cell associated molecule is highly expressed in the cerebellum and is a marker for activated NKT and CD8⁺ T lymphocytes. *J. Neuroimmunol.* 171: 145-155.

CHROMOSOMAL LOCATION

Genetic locus: CRTAM (human) mapping to 11q24.1; Crtam (mouse) mapping to 9 A5.1.

SOURCE

CRTAM (C-12) is a mouse monoclonal antibody raised against amino acids 287-342 mapping near the C-terminus of CRTAM of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CRTAM (C-12) is available conjugated to agarose (sc-390581 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390581 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390581 PE), fluorescein (sc-390581 FITC), Alexa Fluor® 488 (sc-390581 AF488), Alexa Fluor® 546 (sc-390581 AF546), Alexa Fluor® 594 (sc-390581 AF594) or Alexa Fluor® 647 (sc-390581 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390581 AF680) or Alexa Fluor® 790 (sc-390581 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CRTAM (C-12) is recommended for detection of CRTAM of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CRTAM siRNA (h): sc-60451, CRTAM siRNA (m): sc-60452, CRTAM shRNA Plasmid (h): sc-60451-SH, CRTAM shRNA Plasmid (m): sc-60452-SH, CRTAM shRNA (h) Lentiviral Particles: sc-60451-V and CRTAM shRNA (m) Lentiviral Particles: sc-60452-V.

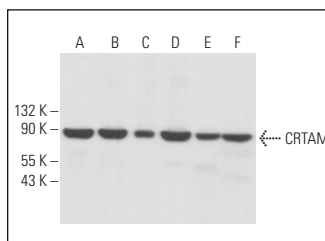
Molecular Weight of CRTAM: 80 kDa.

Positive Controls: SUP-T1 whole cell lysate: sc-364796, SK-N-MC cell lysate: sc-2237 or Jurkat whole cell lysate: sc-2204.

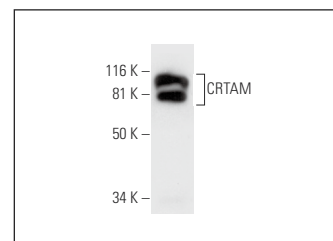
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CRTAM (C-12): sc-390581. Western blot analysis of CRTAM expression in SP2/O (A), Jurkat (B), SK-N-MC (C) and SUP-T1 (D) whole cell lysates and rat cerebellum (E) and rat thymus (F) tissue extracts.



CRTAM (C-12): sc-390581. Western blot analysis of CRTAM expression in TK-1 whole cell lysate.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.