SANTA CRUZ BIOTECHNOLOGY, INC.

CRTAM (C-13): sc-46879

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 (Necl2), which is involved in IL-22 expression regulation. This Necl2/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

1. 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.
2. Shingai, T., et al. 2003. Implications of Necl2/IGSF4/RA175/SgIGSF/TSLC1/SynCAM1 in cell-cell adhesion and transmembrane protein localization in epithelial cells. J. Biol. Chem. 278: 35421-35427.
3. Boles, K.S., et al. 2005. The tumor suppressor TSLC1/Necl2 triggers NK cell and CD8+ T cell responses through the cell surface receptor CRTAM. Blood 106: 779-786.
4. 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.
5. 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.
6. Arase, N., et al. 2005. Heterotypic interaction of CRTAM with Necl2 induces cell adhesion on activated NK cells and CD8+ T cells. Int. Immunol. 17: 1227-1237.

CHROMOSOMAL LOCATION

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

SOURCE

CRTAM (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CRTAM of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-46879 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

CRTAM (C-13) is recommended for detection of CRTAM of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

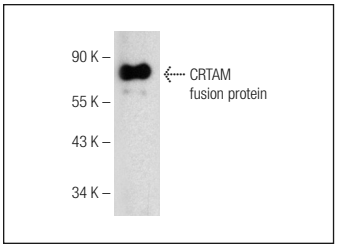
Suitable for use as control antibody for CRTAM siRNA (m): sc-60452, CRTAM shRNA Plasmid (m): sc-60452-SH and CRTAM shRNA (m) Lentiviral Particles: sc-60452-V.

Molecular Weight of CRTAM: 80 kDa.

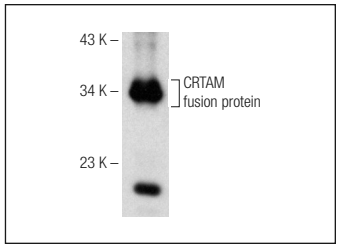
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CRTAM (C-13): sc-46879. Western blot analysis of mouse recombinant CRTAM fusion protein.



CRTAM (C-13): sc-46879. Western blot analysis of human recombinant CRTAM fusion protein.

RESEARCH USE

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

PROTOCOLS

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