

CRTAM (K-19): sc-46881

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

- 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 Necl2/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/Necl2 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.
- 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 (K-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CRTAM of human 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-46881 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 (K-19) 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 (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.

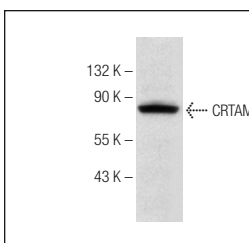
Molecular Weight of CRTAM: 80 kDa.

Positive Controls: mouse spleen extract: sc-2391.

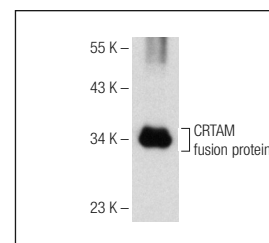
RECOMMENDED SECONDARY REAGENTS

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 (K-19): sc-46881. Western blot analysis of CRTAM expression in mouse spleen tissue extract.



CRTAM (K-19): sc-46881. Western blot analysis of human recombinant CRTAM fusion protein.

RESEARCH USE

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

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Try **CRTAM (C-12): sc-390581**, our highly recommended monoclonal alternative to CRTAM (K-19).