SANTA CRUZ BIOTECHNOLOGY, INC.

CD300C (K-16): sc-161454



BACKGROUND

CD300C (CD300 antigen-like family member C), also known as CLM-6 (CMRF35-like molecule 6), is a 224 amino acid single-pass type I membrane protein that is present on the surface of neutrophils, monocytes and a select proportion of peripheral blood B and T lymphocytes. CD300C contains two potential N-gylcosylation sites, a potential O-glycosylated hinge-like region and an Ig-like V-type (immunoglobulin-like) domain that is very similar to the Fc receptor for polymeric IgA and IgM. The gene encoding CD300C is localized to a region on human chromosome 17 that harbors a susceptilibty locus for psoriasis, dermatitis and rheumatoid arthritis, suggesting a possible involvement of CD300C with these conditions.

REFERENCES

- Jackson, D.G., Hart, D.N., Starling, G. and Bell, J.I. 1992. Molecular cloning of a novel member of the immunoglobulin gene superfamily homologous to the polymeric immunoglobulin receptor. Eur. J. Immunol. 22: 1157-1163.
- Daish, A., Starling, G.C., McKenzie, J.L., Nimmo, J.C., Jackson, D.G. and Hart, D.N. 1993. Expression of the CMRF-35 antigen, a new member of the immunoglobulin gene superfamily, is differentially regulated on leucocytes. Immunology 79: 55-63.
- Clark, G.J., Cooper, B., Fitzpatrick, S., Green, B.J. and Hart, D.N. 2001. The gene encoding the immunoregulatory signaling molecule CMRF-35A localized to human chromosome 17 in close proximity to other members of the CMRF-35 family. Tissue Antigens 57: 415-423.
- Speckman, R.A., Wright Daw, J.A., Helms, C., Duan, S., Cao, L., Taillon-Miller, P., Kwok, P.Y., Menter, A. and Bowcock, A.M. 2003. Novel immunoglobulin superfamily gene cluster, mapping to a region of human chromosome 17q25, linked to psoriasis susceptibility. Hum. Genet. 112: 34-41.
- Aguilar, H., Alvarez-Errico, D., García-Montero, A.C., Orfao, A., Sayós, J. and López-Botet, M. 2004. Molecular characterization of a novel immune receptor restricted to the monocytic lineage. J. Immunol. 173: 6703-6711.
- 6. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 606786. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 7. Clark, G.J., Rao, M., Ju, X. and Hart, D.N. 2007. Novel human CD4⁺ T lymphocyte subpopulations defined by CD300A/C molecule expression. J. Leukoc. Biol. 82: 1126-1135.
- Ju, X., Zenke, M., Hart, D.N. and Clark, G.J. 2008. CD300a/c regulate type I interferon and TNF-α secretion by human plasmacytoid dendritic cells stimulated with TLR7 and TLR9 ligands. Blood 112: 1184-1194.

CHROMOSOMAL LOCATION

Genetic locus: CD300C (human) mapping to 17q25.1.

STORAGE

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

SOURCE

CD300C (K-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal extracellular domain of CD300C 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-161454 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CD300C (K-16) is recommended for detection of CD300C of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other CD300 family members.

Suitable for use as control antibody for CD300C siRNA (h): sc-93646, CD300C shRNA Plasmid (h): sc-93646-SH and CD300C shRNA (h) Lentiviral Particles: sc-93646-V.

Molecular Weight of CD300C: 25 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) Immunofluo-rescence: 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.

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.