

CD300C (T-14): sc-161457

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-glycosylation 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 susceptibility locus for psoriasis, dermatitis and rheumatoid arthritis, suggesting a possible involvement of CD300C with these conditions.

REFERENCES

1. Jackson, D.G., et al. 1992. Molecular cloning of a novel member of the immunoglobulin gene superfamily homologous to the polymeric immunoglobulin receptor. *Eur. J. Immunol.* 22: 1157-1163.
2. Daish, A., et al. 1993. Expression of the CMRF-35 antigen, a new member of the immunoglobulin gene superfamily, is differentially regulated on leucocytes. *Immunology* 79: 55-63.
3. Clark, G.J., et al. 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.
4. Speckman, R.A., et al. 2003. Novel immunoglobulin superfamily gene cluster, mapping to a region of human chromosome 17q25, linked to psoriasis susceptibility. *Hum. Genet.* 112: 34-41.
5. Aguilar, H., et al. 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., et al. 2007. Novel human CD4⁺ T lymphocyte subpopulations defined by CD300A/C molecule expression. *J. Leukoc. Biol.* 82: 1126-1135.
8. Ju, X., et al. 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.

SOURCE

CD300C (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of CD300C of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-161457 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CD300C (T-14) 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) 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.

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.