

CD96 (NK92.39.1): sc-53575

BACKGROUND

CD96 antigen, also designated T cell surface protein tactile (T cell activation, increased late expression) precursor, is a type I membrane protein and is a member of the immunoglobulin supergene family of proteins. The gene encoding for the CD96 protein maps to chromosome 3q13.13-q13.2. During the late phases of the immune response, CD96 is involved in adhesive interactions of activated, both helper and cytotoxic, NK and T cells. It interacts with CD155. A 160 kDa protein, CD96, shows increased expression after NK and T cell activation. It can also be found actively engaging diseased cells and moving in inflamed areas after NK and T cells have moved through the endothelium. CD96 is involved in antigen presentation and/or lymphocyte activation. The protein, which may form a homodimer, is expressed on normal T cell lines and some transformed T cells.

REFERENCES

1. Wang, P.L., et al. 1992. Identification and molecular cloning of tactile. A novel human T cell activation antigen that is a member of the Ig gene superfamily. *J. Immunol.* 148: 2600-2608.
2. Gramatzki, M., et al. 1998. Antibodies TC-12 ("unique") and TH-111 (CD96) characterize T cell acute lymphoblastic leukemia and a subgroup of acute myeloid leukemia. *Exp. Hematol.* 26: 1209-1214.
3. Burger, R., et al. 1999. Heterogeneity of T-acute lymphoblastic leukemia (T-ALL) cell lines: suggestion for classification by immunophenotype and T cell receptor studies. *Leuk. Res.* 23: 19-27.
4. Fuchs, A., et al. 2004. Cutting edge: CD96 (tactile) promotes NK cell-target cell adhesion by interacting with the poliovirus receptor (CD155). *J. Immunol.* 172: 3994-3998.
5. Tomasec, P., et al. 2005. Downregulation of natural killer cell-activating ligand CD155 by human cytomegalovirus UL141. *Nat. Immunol.* 6: 181-188.
6. SWISS-PROT/TrEMBL (P40200). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>
7. <http://harvester.embl.de/harvester/P402/P40200.htm>

CHROMOSOMAL LOCATION

Genetic locus: CD96 (human) mapping to 3q13.13-q13.2; Cd96 (mouse) mapping to 16 B5.

SOURCE

CD96 (NK92.39.1) is a mouse monoclonal antibody raised against NK92 cells of human origin.

PRODUCT

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

CD96 (NK92.39.1) is available conjugated to either phycoerythrin (sc-53575 PE) or fluorescein (sc-53575 FITC), 200 µg/ml, for IF, IHC(P) and FCM.

APPLICATIONS

CD96 (NK92.39.1) is recommended for detection of CD96 of human origin by 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 flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for CD96 siRNA (h): sc-45460, CD96 shRNA Plasmid (h): sc-45460-SH and CD96 shRNA (h) Lentiviral Particles: sc-45460-V.

Molecular Weight of CD96: 160 kDa.

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.