



# 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. 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. 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>

## CHROMOSOMAL LOCATION

Genetic locus: CD96 (human) mapping to 3q13.13.

## SOURCE

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

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> 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.

## STORAGE

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

## 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 10<sup>6</sup> 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.