

# CD96 (NK92.50.1): sc-53574

## 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 (NK92.50.1) is a mouse monoclonal antibody raised against NK92 cells 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.

## 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.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD96 (NK92.50.1) is available conjugated to agarose (sc-53574 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53574 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53574 PE), fluorescein (sc-53574 FITC), Alexa Fluor<sup>®</sup> 488 (sc-53574 AF488), Alexa Fluor<sup>®</sup> 546 (sc-53574 AF546), Alexa Fluor<sup>®</sup> 594 (sc-53574 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-53574 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-53574 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-53574 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

CD96 (NK92.50.1) is recommended for detection of CD96 of human origin by 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.