

# CD48 (0.N.140): sc-70719

## BACKGROUND

CD48 is a GPI-anchored glycoprotein that may act as a low affinity receptor for CD2. CD48 is expressed on all peripheral blood T, B and null cells, thymocytes, eosinophils, a portion of bone marrow cells and some epithelial cells. Rat CD48 is found on hematopoietic and endothelial cells, and mouse CD48 is found on thymocytes, lymph node cells, most macrophages and bone marrow cells. CD48 has been shown to be associated with the tyrosine kinase Lck.

## REFERENCES

1. Vaughan, H.A., Thompson, C.H., Sparrow, R.L. and McKenzie, I.F. 1983. Hu Ly-M3—a human leukocyte antigen. *Transplantation* 36: 446-450.
2. Arvieux, J., Willis, A.C. and Williams, A.F. 1986. MRC OX-45 antigen: a leucocyte/endothelium rat membrane glycoprotein of 45,000 molecular weight. *Mol. Immunol.* 23: 983-990.
3. Bazil, V., Stefanová, I., Hilgert, I., Kristofová, H., Vanek, S., Bukovský, A. and Horejsí, V. 1989. Monoclonal antibodies against human leucocyte antigens. III. Antibodies against CD45R, CD6, CD44 and two newly described broadly expressed glycoproteins MEM-53 and MEM-102. *Folia Biol.* 35: 289-297.
4. Knapp, W., et al. 1989. *Leucocyte Typing IV*. Oxford University Press.
5. Korinek, V. et al. 1991. The human leucocyte antigen CD48 (MEM-102) is closely related to the activation marker Blast-1. *Immunogenetics* 33: 108-112.
6. Garnett, D., Barclay, A.N., Carmo, A.M. and Beyers, A.D. 1993. The association of the protein tyrosine kinases p56Lck and p60Fyn with the glycosyl phosphatidylinositol-anchored proteins Thy-1 and CD48 in rat thymocytes is dependent on the state of cellular activation. *Eur. J. Immunol.* 23: 2540-2544.
7. Katsuura, M., Yokoyama, S., Shimizu, Y., Akiba, K., Mitsui, T., Sendo, D. and Hayasaka, K. 1994. Increased expression of CD48 on neutrophils activated in childhood patients with aplastic anemia. *Int. J. Hematol.* 60: 281-285.

## CHROMOSOMAL LOCATION

Genetic locus: CD48 (human) mapping to 1q23.3; Cd48 (mouse) mapping to 1 H3.

## SOURCE

CD48 (0.N.140) is a mouse monoclonal antibody raised against human peripheral blood cells.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

CD48 (0.N.140) is recommended for detection of CD48 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 CD48 siRNA (h): sc-35008, CD48 siRNA (m): sc-35009, CD48 shRNA Plasmid (h): sc-35008-SH, CD48 shRNA Plasmid (m): sc-35009-SH, CD48 shRNA (h) Lentiviral Particles: sc-35008-V and CD48 shRNA (m) Lentiviral Particles: sc-35009-V.

Molecular Weight of CD48: 43 kDa.

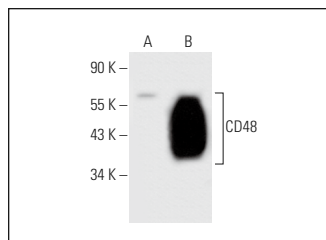
Positive Controls: CD48 (h2): 293T Lysate: sc-175059, Jurkat whole cell lysate: sc-2204 or CTLL-2 cell lysate: sc-2242.

## RECOMMENDED SUPPORT REAGENTS

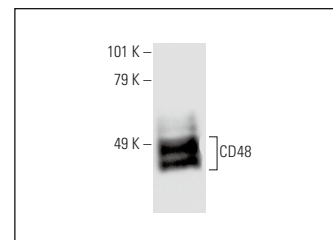
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
- 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



CD48 (0.N.140): sc-70719. Western blot analysis of CD48 expression in non-transfected: sc-117752 (A) and human CD48 transfected: sc-175059 (B) 293T whole cell lysates.



CD48 (0.N.140): sc-70719. Western blot analysis of CD48 expression in human PBL whole cell lysate.

## 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.