

CD48 (4H9): sc-8397

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

- Vaughan, H.A., et al. 1983. Hu Ly-M3—a human leukocyte antigen. *Transplantation* 36: 446-450.
- Arvieux, J., et al. 1986. MRC OX-45 antigen: a leucocyte/endothelium rat membrane glycoprotein of 45,000 molecular weight. *Mol. Immunol.* 23: 983-990.
- Bazil, V., et al. 1989. Monoclonal antibodies against human leukocyte antigens. III. Antibodies against CD45R, CD6, CD44 and two newly described broadly expressed glycoproteins MEM-53 and MEM-102. *Folia Biol.* 35: 289-297.

CHROMOSOMAL LOCATION

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

SOURCE

CD48 (4H9) is a mouse monoclonal antibody raised against stimulated human leukocytes.

PRODUCT

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

CD48 (4H9) is available conjugated to either phycoerythrin (sc-8397 PE) or fluorescein (sc-8397 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

CD48 (4H9) 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), flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

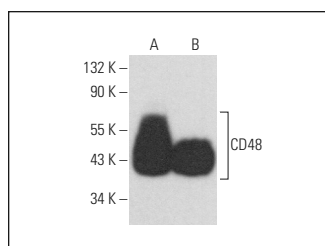
Molecular Weight of CD48: 43 kDa.

Positive Controls: NAMALWA cell lysate: sc-2234, NCI-H929 whole cell lysate: sc-364786 or CTLL-2 cell lysate: sc-2242.

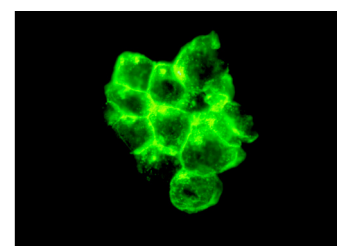
RECOMMENDED SUPPORT REAGENTS

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 (4H9): sc-8397. Western blot analysis of CD48 expression in NAMALWA (A) and NCI-H929 (B) whole cell lysates.



CD48 (4H9): sc-8397. Immunofluorescence staining of methanol-fixed IB4 cells showing membrane localization.

SELECT PRODUCT CITATIONS

- Messmer, B., et al. 2006. CD48 stimulation by 2B4 (CD244)-expressing targets activates human NK cells. *J. Immunol.* 176: 4646-4650.
- Munitz, A., et al. 2006. CD48 is an allergen and IL-3-induced activation molecule on eosinophils. *J. Immunol.* 177: 77-83.
- Sandusky, M.M., et al. 2006. Regulation of 2B4 (CD244)-mediated NK cell activation by ligand-induced receptor modulation. *Eur. J. Immunol.* 36: 3268-3276.
- Elias, S., et al. 2014. Immune evasion by oncogenic proteins of acute myeloid leukemia. *Blood* 123: 1535-1543.
- Kim, S.H., et al. 2023. Boosting of Tau protein aggregation by CD40 and CD48 gene expression in Alzheimer's disease. *FASEB J.* 37: e22702.

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.