

CD47 (h): 293 Lysate: sc-112975

BACKGROUND

CD47 is an integral membrane protein that plays a role in the regulation of cation fluxes across cell membranes. Specifically, CD47 is involved in the increase in intracellular calcium concentration that occurs upon cell adhesion to the extracellular matrix. It is also a receptor for the C-terminal cell binding domain of thrombospondin (SIRP). CD47 is absent from Rh-null erythrocytes, but does play a role in cell adhesion in non-erythroid cells and may prevent premature elimination of erythrocytes. It may also be involved in membrane permeability changes following viral infection. CD47 is expressed on hemopoietic cells, epithelial cells, endothelial cells and fibroblasts and is strongly expressed in brain and mesenchymal cells.

REFERENCES

1. Boerman, O., Makkink, K., Massuger, L., Thomas, C., Kenemans, P., Hanselaar, T. and Poels, L. 1989. Monoclonal antibodies against ovarian carcinoma-associated antigens, raised by immunization with cyst fluids. *Anticancer Res.* 9: 551-558.
2. Knapp, W., Dorken, B., Gilks, W.R., Rieber, E.P., Schmidt, R.E., Stein, H. and Von Dem Borne, A.E.G., Kr., eds. 1989. *Leukocyte Typing IV: White Cell Differentiation Antigens*. New York: Oxford University Press.
3. Van Niekerk, C.C., Ramaekers, F.C., Hanselaar, A.G., Aldeweireldt, J. and Poels, L.G. 1993. Changes in expression of differentiation markers between normal ovarian cells and derived tumors. *Am. J. Pathol.* 142: 157-177.
4. Slobbe, R., Poels, L., ten Dam, G., Boerman, O., Nieland, L., Leunissen, J., Ramaekers, F. and van Eys, G. 1994. Analysis of idiotope structure of ovarian cancer antibodies: recognition of the same epitope by two monoclonal antibodies differing mainly in their heavy chain variable sequences. *Clin. Exp. Immunol.* 98: 95-103.
5. Mawby, W.J., Holmes, C.H., Anstee, D.J., Spring, F.A. and Tanner, M.J. 1994. Isolation and characterization of CD47 glycoprotein: a multispanning membrane protein which is the same as integrin-associated protein (IAP) and the ovarian tumour marker OA3. *Biochem. J.* 304: 525-530.
6. Lindberg, F.P., Lublin, D.M., Telen, M.J., Veile, R.A., Miller, Y.E., Donis-Keller, H. and Brown, E.J. 1994. Rh-related antigen CD47 is the signal-transducer integrin-associated protein. *J. Biol. Chem.* 269: 1567-1570.
7. Tichioni, M., Deckert, M., Mary, F., Bernard, G., Brown, E.J. and Bernard, A. 1997. Integrin-associated protein (CD47) is a comitogenic molecule on CD3-activated human T cells. *J. Immunol.* 158: 677-684.
8. Nishiyama, Y., Tanaka, T., Naitoh, H., Mori, C., Fukumoto, M., Hiai, H. and Toyokuni, S. 1997. Overexpression of integrin-associated protein (CD47) in rat kidney treated with a renal carcinogen, ferric nitrilotriacetate. *Jpn. J. Cancer Res.* 88: 120-128.
9. Kishimoto, T., Kikutani, H., Von Dem Borne A.E.G., Kr., eds. 1997. *Leukocyte Typing VI: White Cell Differentiation Antigens*. New York: Garland Press.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: CD47 (human) mapping to 3q13.12.

PRODUCT

CD47 (h): 293 Lysate represents a lysate of human CD47 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

CD47 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive CD47 antibodies. Recommended use: 10-20 µl per lane.

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

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.