SANTA CRUZ BIOTECHNOLOGY, INC.

EMMPRIN (OX47): sc-53065

BACKGROUND

Extracellular matrix metalloproteinase inducer, EMMPRIN (also designated basigin or CD147), is involved in the regulation of matrix remodeling at the epidermal-dermal interface. EMMPRIN stimulates the production of interstitial collagenase, gelatinase A, stromelysin-1 and various metalloproteinases (MMPs) by fibroblasts. These enzymes, which are typically increased during tissue degradation and wound healing, are important factors in cancer invasion and metastasis.

REFERENCES

1. Miyauchi, T., Kanekura, T., Yamaoka, A., Ozawa, M., Miyazawa, S. and Muramatsu, T. 1990. Basigin, a new, broadly distributed member of the immunoglobulin superfamily, has strong homology with both the immunoglobulin V domain and the β chain of major histocompatibility complex class II antigen. J. Biochem. 107: 316-323.
2. Biswas, C., Zhang, Y., DeCastro, R., Guo, H., Nakamura, T., Kataoka, H. and Nabeshima, K. 1995. The human tumor cell-derived collagenase stimulatory factor (renamed EMMPRIN) is a member of the immunoglobulin superfamily. Cancer Res. 55: 434-439.
3. DeCastro, R., Zhang, Y., Guo, H., Kataoka, H., Gordon, M.K., Toole, B.P. and Biswas, G. 1996. Human keratinocytes express EMMPRIN, an extracellular matrix metalloproteinase inducer. J. Invest. Dermatol. 106: 1260-1265.
4. Guo, H., Zucker, S., Gordon, M.K., Toole, B. and Biswas, C. 1997. Stimulation of matrix metalloproteinase production by recombinant extracellular matrix metalloproteinase inducer from transfected Chinese hamster ovary cells. J. Biol. Chem. 272: 24-27.
5. Guo, H., Majmudar, G., Jensen, T.C., Biswas, C., Toole, B.P. and Gordon, M.K. 1998. Characterization of the gene for human EMMPRIN, a tumor cell surface inducer of matrixmetalloproteinases. Gene 220: 99-108.
6. Lim, M., Martinez, T., Jablons, D., Cameron, R., Guo, H., Toole, B., Li, J.D. and Basbaum, C. 1998. Tumor-derived EMMPRIN (extracellular matrix metalloproteinase inducer) stimulates collagenase transcription through MAPK p38. FEBS Lett. 441: 88-92.
7. Kahari, V.M. and Saarialho-Kere, U. 1999. Matrix metalloproteinases and their inhibitors in tumour growth and invasion. Ann. Med. 31: 34-45.
8. Koch, C., Staffler, G., Huttinger, R., Hilgert, I., Prager, E., Cerny, J., Steinlein, P., Majdic, O., Horejsi, V. and Stockinger, H. 1999. T cell activation-associated epitopes of CD147 in regulation of the T cell response, and their definition by antibody affinity and antigen density. Int. Immunol. 11: 777-786.

CHROMOSOMAL LOCATION

Genetic locus: Bsg (rat) mapping to 7q11.

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.

SOURCE

EMMPRIN (OX47) is a mouse monoclonal antibody raised against T blasts from a mixed lymphocyte reaction.

PRODUCT

Each vial contains 200 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as phycoerythrin (sc-53065 PE) or fluorescein (sc-53065 FITC) conjugates for flow cytometry, 100 tests.

APPLICATIONS

EMMPRIN (OX47) is recommended for detection of EMMPRIN of rat origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells).

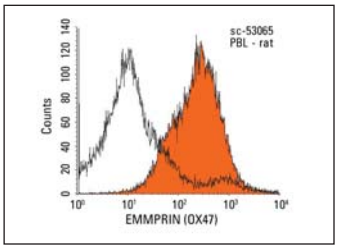
Suitable for use as control antibody for: CD8-α.

Molecular Weight of EMMPRIN: 55 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



EMMPRIN (OX47): sc-53065. Indirect FCM analysis of rat peripheral blood leukocytes stained with EMMPRIN (OX47), followed by PE-conjugated goat anti-mouse IgG: sc-3738. Black line histogram represents the isotype control, normal mouse IgG_1: sc-3877.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.