SANTA CRUZ BIOTECHNOLOGY, INC.

EMMPRIN (OX114): sc-53064

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. Paterson, D.J., et al. 1987. Antigens of activated rat T lymphocytes including a molecule of 50,000 Mr detected only on CD4 positive T blasts. Mol. Immunol. 24: 1281-1290.
2. Miyauchi, T., et al. 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.
3. Biswas, C., et al. 1995. The human tumor cell-derived collagenase stimulatory factor (renamed EMMPRIN) is a member of the immunoglobulin superfamily. Cancer Res. 55: 434-439.
4. DeCastro, R., et al. 1996. Human keratinocytes express EMMPRIN, an extracellular matrix metalloproteinase inducer. J. Invest. Dermatol. 106: 1260-1265.
5. Guo, H., et al. 1997. Stimulation of matrix metalloproteinase production by recombinant extracellular matrix metalloproteinase inducer from transfected Chinese hamster ovary cells. J. Biol. Chem. 272: 24-27.
6. Guo, H., et al. 1998. Characterization of the gene for human EMMPRIN, a tumor cell surface inducer of matrixmetalloproteinases. Gene 220: 99-108.
7. Lim, M., et al. 1998. Tumor-derived EMMPRIN (extracellular matrix metalloproteinase inducer) stimulates collagenase transcription through MAPK p38. FEBS Lett. 441: 88-92.
8. Kahari, V.M. and Saarialho-Kere, U. 1999. Matrix metalloproteinases and their inhibitors in tumour growth and invasion. Ann. Med. 31: 34-45.

CHROMOSOMAL LOCATION

Genetic locus: BSG (human) mapping to 19p13.3; Bsg (mouse) mapping to 10 C1.

SOURCE

EMMPRIN (OX114) is a rat monoclonal antibody raised against EMMPRIN of mouse origin.

PRODUCT

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

EMMPRIN (OX114) is available conjugated to either phycoerythrin (sc-53064 PE) or fluorescein (sc-53064 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

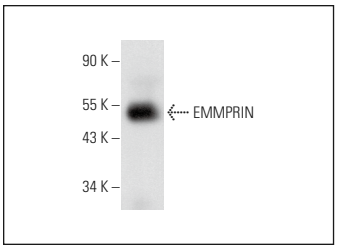
EMMPRIN (OX114) is recommended for detection of EMMPRIN of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 EMMPRIN siRNA (h): sc-35298, EMMPRIN siRNA (m): sc-35299, EMMPRIN siRNA (r): sc-156103, EMMPRIN shRNA Plasmid (h): sc-35298-SH, EMMPRIN shRNA Plasmid (m): sc-35299-SH, EMMPRIN shRNA Plasmid (r): sc-156103-SH, EMMPRIN shRNA (h) Lentiviral Particles: sc-35298-V, EMMPRIN shRNA (m) Lentiviral Particles: sc-35299-V and EMMPRIN shRNA (r) Lentiviral Particles: sc-156103-V.

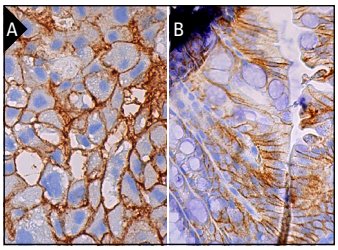
Molecular Weight of EMMPRIN: 55 kDa.

Positive Controls: 3611-RF whole cell lysate: sc-2215, HL-60 whole cell lysate: sc-2209 or RAW 264.7 whole cell lysate: sc-2211.

DATA



EMMPRIN (OX114): sc-53064. Western blot analysis of EMMPRIN expression in HL-60 whole cell lysate.



EMMPRIN (OX114): sc-53064. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse placenta tissue showing membrane staining of trophoblastic cells and decidual cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse colon tissue showing membrane staining of glandular cells (**B**).

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.

CONJUGATES

See **EMMPRIN (B-5): sc-46700** for EMMPRIN antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.