SANTA CRUZ BIOTECHNOLOGY, INC.

EMMPRIN (A-12): sc-25273

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.

CHROMOSOMAL LOCATION

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

SOURCE

EMMPRIN (A-12) is a mouse monoclonal antibody raised against amino acids 1-200 mapping at the N-terminus of EMMPRIN of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

EMMPRIN (A-12) is recommended for detection of EMMPRIN of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:500), 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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: HeLa whole cell lysate: sc-2200, A-431 whole cell lysate: sc-2201 or WI-38 whole cell lysate: sc-364260.

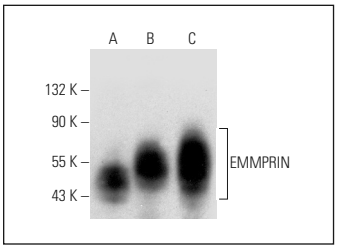
RECOMMENDED SUPPORT REAGENTS

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.

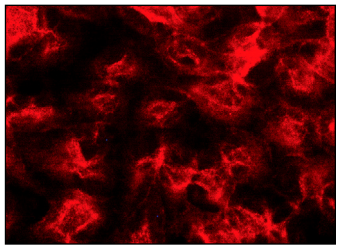
STORAGE

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

DATA



EMMPRIN (A-12): sc-25273. Western blot analysis of EMMPRIN expression in WI-38 (**A**), A-431 (**B**) and HeLa (**C**) whole cell lysates.



EMMPRIN (A-12): sc-25273. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

SELECT PRODUCT CITATIONS

1. Li, H., et al. 2010. Transcriptional factor HBP1 targets $P16^{INK4A}$, upregulating its expression and consequently is involved in Ras-induced premature senescence. Oncogene 29: 5083-5094.
2. Tyler, R.E., et al. 2012. Unassembled CD147 is an endogenous endoplasmic reticulum-associated degradation substrate. Mol. Biol. Cell 23: 4668-4678.
3. Schulz, J., et al. 2017. Conserved cytoplasmic domains promote Hrd1 ubiquitin ligase complex formation for ER-associated degradation (ERAD). J. Cell Sci. 130: 3322-3335.
4. Xie, J.C., et al. 2018. Hypoxia increases amyloid-β level in exosomes by enhancing the interaction between CD147 and Hook1. Am. J. Transl. Res. 10: 150-163.
5. Xie, J., et al. 2019. Resveratrol abrogates hypoxia-induced up-regulation of exosomal amyloid-β partially by inhibiting CD147. Neurochem. Res. 44: 1113-1126.
6. Gonzalez-Andrades, M., et al. 2020. Golgi α1,2-mannosidase I induces clustering and compartmentalization of CD147 during epithelial cell migration. Cell Adh. Migr. 14: 96-105.
7. Fenech, E.J., et al. 2020. Interaction mapping of endoplasmic reticulum ubiquitin ligases identifies modulators of innate immune signalling. Elife 9: e57306.
8. Woodward, A.M., et al. 2021. CRISPR/Cas9 genome editing reveals an essential role for basigin in maintaining a nonkeratinized squamous epithelium in cornea. FASEB Bioadv. 3: 897-908.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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.