SANTA CRUZ BIOTECHNOLOGY, INC.

EMP-3 (H-130): sc-135143

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

EMP-3 (epithelial membrane protein 3), also known as YMP, is a 163 amino acid multi-pass membrane protein that contains 2 N-linked glycosylation sites and 4 transmembrane domains. Expressed ubiquitously with highest expression in peripheral blood leukocytes, EMP-3 is a myelin-related protein that is thought to be involved in cell-cell interactions and cell proliferation. The gene encoding EMP-2 is implicated as a possible tumor suppressor that silences CpG promotor action, thereby inhibiting the growth of neuroblastomas and gliomas. Overexpression of EMP-3, however, may be associated with the development of oligodendroglial tumors (tumors that develop on the myelin producing cells of the central nervous system). Its ability to both repress and induce tumor formation suggests that normal amounts of EMP-3 keep tumor activity low, while increased EMP-3 expression may play a role in carcinogenesis.

REFERENCES

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3. Liehr, T., Kuhlenbäumer, G., Wulf, P., Taylor, V., Suter, U., Van Broeckhoven, C., Lupski, J.R., Claussen, U. and Rautenstrauss, B. 1999. Regional localization of the human epithelial membrane protein genes 1, 2, and 3 (EMP1, EMP2, EMP3) to 12p12.3, 16p13.2, and 19q13.3. Genomics 58: 106-108.
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5. Knuepfer, E., Rug, M., Klonis, N., Tilley, L. and Cowman, A.F. 2005. Trafficking determinants for PfEMP3 export and assembly under the *Plasmodium falciparum*-infected red blood cell membrane. Mol. Microbiol. 58: 1039-1053.

CHROMOSOMAL LOCATION

Genetic locus: EMP3 (human) mapping to 19q13.33; Emp3 (mouse) mapping to 7 B4.

SOURCE

EMP-3 (H-130) is a rabbit polyclonal antibody raised against amino acids 11-140 mapping within an internal region of EMP-3 of human origin.

PRODUCT

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

RESEARCH USE

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

APPLICATIONS

EMP-3 (H-130) is recommended for detection of EMP-3 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for EMP-3 siRNA (h): sc-97634, EMP-3 siRNA (m): sc-144648, EMP-3 shRNA Plasmid (h): sc-97634-SH, EMP-3 shRNA Plasmid (m): sc-144648-SH, EMP-3 shRNA (h) Lentiviral Particles: sc-97634-V and EMP-3 shRNA (m) Lentiviral Particles: sc-144648-V.

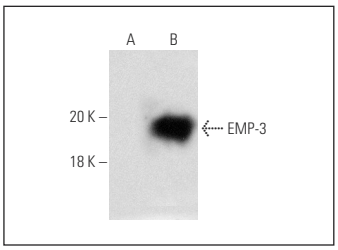
Molecular Weight of EMP-3: 18 kDa.

Positive Controls: EMP-3 (h): 293 Lysate: sc-111244 or C32 whole cell lysate: sc-2205.

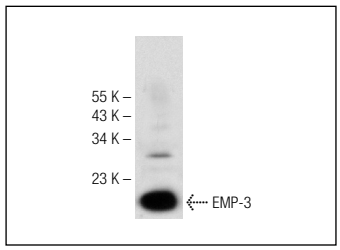
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



EMP-3 (H-130): sc-135143. Western blot analysis of EMP-3 expression in non-transfected: sc-110760 (**A**) and human EMP-3 transfected: sc-111244 (**B**) 293 whole cell lysates.



EMP-3 (H-130): sc-135143. Western blot analysis of EMP-3 expression in C32 whole cell lysate.

STORAGE

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

MONOS Satisfaction Guaranteed

Try **EMP-3 (SW-5): sc-81797**, our highly recommended monoclonal alternative to EMP-3 (H-130).