SANTA CRUZ BIOTECHNOLOGY, INC.

Ep-CAM (h2): 293T Lysate: sc-159491

BACKGROUND

The epithelial cell adhesion molecule Ep-CAM, which is also designated tumor-associated calcium signal transducer 1 and MK-1, is a monomeric membrane glycoprotein that is expressed in most normal human epithelium and in most carcinomas. The human Ep-CAM gene encodes a 314 amino acid protein that is expressed as 2 forms, a major form and a minor form, which are reduced upon treatment with the amino-glycosylation inhibitor Tunicamycin. Ep-CAM is overexpressed in a variety of carcinomas and is, therefore, a potential target for the visualization and therapy of human solid tumors. Ep-CAM contains an extracellular domain containing two epidermal growth factor-like repeats, followed by a cysteine poor region, which are necessary for the adhesion properties of the molecule.

REFERENCES

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2. Bergsagel, P.L., et al. 1992. A murine cDNA encodes a pan-epithelial glycoprotein that is also expressed on plasma cells. J. Immunol. 148: 590-596.
3. Bjork, P., et al. 1993. Isolation, partial characterization, and molecular cloning of a human colon adenocarcinoma cell-surface glycoprotein recognized by the C215 mouse monoclonal antibody. J. Biol. Chem. 268: 24232-24241.
4. Nelson, A.J., et al. 1996. The murine homolog of human Ep-CAM, a homotypic adhesion molecule, is expressed by thymocytes and thymic epithelial cells. Eur. J. Immunol. 26: 401-408.
5. Litvinov, S.V., et al. 1997. Epithelial cell adhesion molecule (Ep-CAM) modulates cell-cell interactions mediated by classic cadherins. J. Cell Biol. 139: 1337-1348.
6. Tomita, Y., et al. 2000. Molecular identification of a human carcinoma-associated glycoprotein antigen recognized by mouse monoclonal antibody FU-MK-1. J. Cancer Res. 91: 231-238.
7. Taguchi, N., et al. 2000. Abnormal thymic expression of epithelial cell adhesion molecule (Ep-CAM) in New Zealand Black (NZB) mice. J. Autoimmun. 13: 393-404.
8. Trebak, M., et al. 2001. Oligomeric state of the colon carcinoma-associated glycoprotein GA733-2 (Ep-CAM/EGP40) and its role in GA733-mediated homotypic cell-cell adhesion. J. Biol. Chem. 276: 2299-2309.

CHROMOSOMAL LOCATION

Genetic locus: EPCAM (human) mapping to 2p21.

PRODUCT

Ep-CAM (h2): 293T Lysate represents a lysate of human Ep-CAM transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

Ep-CAM (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Ep-CAM antibodies. Recommended use: 10-20 µl per lane.

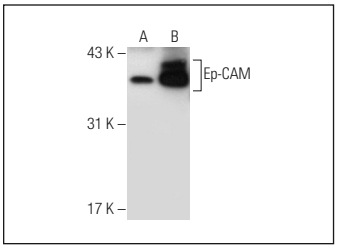
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Ep-CAM (C-10): sc-25308 is recommended as a positive control antibody for Western Blot analysis of enhanced human Ep-CAM expression in Ep-CAM transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

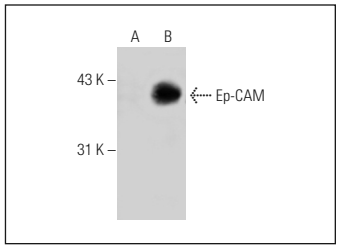
RECOMMENDED SUPPORT REAGENTS

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.

DATA



Ep-CAM (C-10): sc-25308. Western blot analysis of Ep-CAM expression in non-transfected: sc-117752 (**A**) and human Ep-CAM transfected: sc-159491 (**B**) 293T whole cell lysates.



Ep-CAM (323/A3): sc-73491. Western blot analysis of Ep-CAM expression in non-transfected: sc-117752 (**A**) and human Ep-CAM transfected: sc-159491 (**B**) 293T whole cell lysates.

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.