SANTA CRUZ BIOTECHNOLOGY, INC.

Ep-CAM (C-10): sc-25308

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 tumours. 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.

CHROMOSOMAL LOCATION

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

SOURCE

Ep-CAM (C-10) is a mouse monoclonal antibody raised against amino acids 24-93 of Ep-CAM of human origin.

PRODUCT

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

Ep-CAM (C-10) is available conjugated to agarose (sc-25308 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-25308 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-25308 PE), fluorescein (sc-25308 FITC), Alexa Fluor® 488 (sc-25308 AF488), Alexa Fluor® 546 (sc-25308 AF546), Alexa Fluor® 594 (sc-25308 AF594) or Alexa Fluor® 647 (sc-25308 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-25308 AF680) or Alexa Fluor® 790 (sc-25308 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Ep-CAM (C-10) is recommended for detection of Ep-CAM of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1,000), 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), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Ep-CAM siRNA (h): sc-43032, Ep-CAM shRNA Plasmid (h): sc-43032-SH and Ep-CAM shRNA (h) Lentiviral Particles: sc-43032-V.

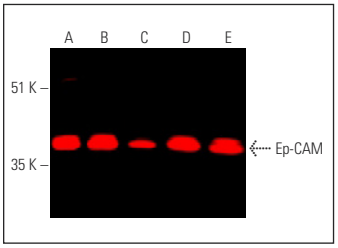
Molecular Weight of Ep-CAM: 40 kDa.

Positive Controls: Ca Ski whole cell lysate: sc-364360, A-431 whole cell lysate: sc-2201 or MCF7 whole cell lysate: sc-2206.

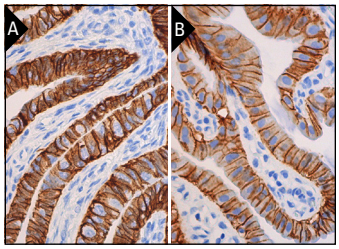
STORAGE

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

DATA



Ep-CAM (C-10): sc-25308. Near-infrared western blot analysis of Ep-CAM expression in A-431 (**A**), MCF7 (**B**), Ca Ski (**C**), SW480 (**D**) and SK-BR-3 (**E**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 790: sc-516181.



Ep-CAM (C-10): sc-25308. Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing membrane and cytoplasmic staining of glandular cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing membrane staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Liu, L., et al. 2007. Immunohistochemical analysis of chromophobe renal cell carcinoma, renal oncocytoma, and clear cell carcinoma: an optimal and practical panel for differential diagnosis. Arch. Pathol. Lab. Med. 131: 1290-1297.
2. Feng, Q., et al. 2023. Upregulation of SOX9 promotes the self-renewal and tumorigenicity of cervical cancer through activating the Wnt/β-catenin signaling pathway. FASEB J. 37: e23174.
3. Dressler, F.F., et al. 2023. EpCAM tumor specificity and proteoform patterns in urothelial cancer. J. Cancer Res. Clin. Oncol. 149: 8913-8922.
4. Chang, I.Y., et al. 2023. Increased soluble E-cadherin of spheroid formation supplemented with fetal bovine serum in colorectal cancer cells. Oncol. Lett. 25: 207.
5. Voss, G., et al. 2023. Functional consequences of A-to-I editing of miR-379 in prostate cancer cells. Sci. Rep. 13: 16602.
6. Garrido Castillo, L.N., et al. 2023. Polyploid giant cancer cells are frequently found in the urine of prostate cancer patients. Cancers 15: 3366.
7. Kim, N., et al. 2024. Cathepsin C regulates tumor progression via the Yes-associated protein signaling pathway in non-small cell lung cancer. Am. J. Cancer Res. 14: 97-113.
8. Hafez, F.S., et al. 2024. TLR4, IgA and EpCAM expression in colorectal cancer and their possible association with microbiota as a pathogenic factor; an immunohistochemical and genetic study. Asian Pac. J. Cancer Prev. 25: 627-636.
9. Wolf, I., et al. 2025. Targeting CD44 and EpCAM with antibody dye conjugates for the photoimmunotherapy of prostate cancer. Antibodies 14: 5.

RESEARCH USE

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