SANTA CRUZ BIOTECHNOLOGY, INC.

HepaCAM (B-7): sc-515637

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The Power to Question

BACKGROUND

HepaCAM (hepatocyte cell adhesion molecule), also known as GlialCAM, is a 416 amino acid single-pass type I membrane protein that contains one Ig-like C2-type domain and one Ig-like V-type domain. Localized to the cytoplasmic side of the membrane, HepaCAM exists as a homodimer that is involved in regulating both cell-matrix interactions and cell motility. Addition ally, HepaCAM is thought to suppress cellular proliferation, suggesting involvement in cell growth inhibition and tumor suppression, specifically with regard to hepatocellular carcinoma. Deletion of the cytoplasmic domain of HepaCAM results in diminished cell-matrix adhesion, implying that the cytoplasmic domain is a crucial component of HepaCAM function. Two isoforms of HepaCAM exist due to alternative splicing events.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611642. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
2. Moh, M.C., et al. 2003. HEPN1, a novel gene that is frequently down-regulated in hepatocellular carcinoma, suppresses cell growth and induces apoptosis in Hep G2 cells. J. Hepatol. 39: 580-586.
3. Moh, M.C., et al. 2005. Structural and functional analyses of a novel ig-like cell adhesion molecule, HepaCAM, in the human breast carcinoma MCF7 cells. J. Biol. Chem. 280: 27366-27374.
4. Chung Moh, M., et al. 2005. Cloning and characterization of HepaCAM, a novel Ig-like cell adhesion molecule suppressed in human hepatocellular carcinoma. J. Hepatol. 42: 833-841.
5. Moh, M.C., et al. 2008. Expression of HepaCAM is downregulated in cancers and induces senescence-like growth arrest via a p53/p21-dependent pathway in human breast cancer cells. Carcinogenesis 29: 2298-2305.
6. Favre-Kontula, L., et al. 2008. GlialCAM, an immunoglobulin-like cell adhesion molecule is expressed in glial cells of the central nervous system. Glia 56: 633-645.

CHROMOSOMAL LOCATION

Genetic locus: HEPACAM (human) mapping to 11q24.2.

SOURCE

HepaCAM (B-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 81-102 within an extracellular domain of HepaCAM of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-515637 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

HepaCAM (B-7) is recommended for detection of HepaCAM of human origin by Western Blotting (starting dilution 1:100, 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 HepaCAM siRNA (h): sc-96533, HepaCAM shRNA Plasmid (h): sc-96533-SH and HepaCAM shRNA (h) Lentiviral Particles: sc-96533-V.

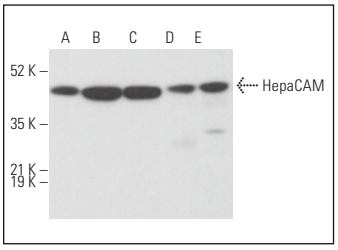
Molecular Weight of HepaCAM: 48 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, T84 whole cell lysate: sc-364797 or Caki-1 cell lysate: sc-2224.

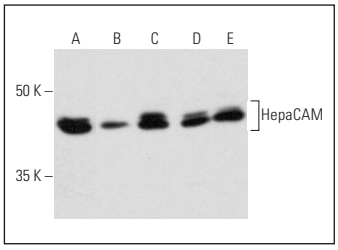
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (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.

DATA



HepaCAM (B-7): sc-515637. Western blot analysis of HepaCAM expression in Hep G2 (**A**), HL-60 (**B**), IMR-32 (**C**), Neuro-2A (**D**) and NIH/3T3 (**E**) whole cell lysates.



HepaCAM (B-7): sc-515637. Western blot analysis of HepaCAM expression in Hep G2 (**A**), T84 (**B**), FHs 74 Int (**C**), Caki-1 (**D**) and WiDr (**E**) whole cell lysates.

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.