

CDCP1 (D-1): sc-515545

BACKGROUND

CDCP1 (CUB-domain-containing protein 1) contains three extracellular CUB domains, a transmembrane domain, and two putative cytoplasmic tyrosine phosphorylation sites. Phosphorylation of the gp140 and p80 proteins is mediated by Src family kinases at various tyrosine residues, including Tyr 734. PTP family members mediate the desphosphorylation of CDCP1. The conversion of gp140 to p80 prolongs the phosphorylation state, which may affect signaling in epithelial wounds. CDCP1 acts as a marker for hematopoietic cells and also exhibits high expression in metastatic colon and breast tumors.

REFERENCES

1. Scherl-Mostageer, M., et al. 2001. Identification of a novel gene, CDCP1, overexpressed in human colorectal cancer. *Oncogene* 20: 4402-4408.
2. Conze, T., et al. 2003. CDCP1 is a novel marker for hematopoietic stem cells. *Ann. N.Y. Acad. Sci.* 996222-996226.
3. Hooper, J.D., et al. 2003. Subtractive immunization using highly metastatic human tumor cells identifies SIMA135/CDCP1, a 135 kDa cell surface phosphorylated glycoprotein antigen. *Oncogene* 22: 1783-1794.
4. Brown, T.A., et al. 2004. Adhesion or plasmin regulates tyrosine phosphorylation of a novel membrane glycoprotein p80/gp140/CUB domain-containing protein 1 in epithelia. *J. Biol. Chem.* 279: 14772-14783.
5. Buhning, H.J., et al. 2004. CDCP1 identifies a broad spectrum of normal and malignant stem/progenitor cell subsets of hematopoietic and nonhematopoietic origin. *Stem Cells* 22: 334-343.
6. Benes, C.H., et al. 2005. The C2 domain of PKC δ is a phosphotyrosine binding domain. *Cell* 121: 271-280.

CHROMOSOMAL LOCATION

Genetic locus: CDCP1 (human) mapping to 3p21.31.

SOURCE

CDCP1 (D-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 221-246 within an extracellular domain of CDCP1 isoform 1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CDCP1 (D-1) is available conjugated to agarose (sc-515545 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515545 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515545 PE), fluorescein (sc-515545 FITC), Alexa Fluor[®] 488 (sc-515545 AF488), Alexa Fluor[®] 546 (sc-515545 AF546), Alexa Fluor[®] 594 (sc-515545 AF594) or Alexa Fluor[®] 647 (sc-515545 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-515545 AF680) or Alexa Fluor[®] 790 (sc-515545 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515545 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

CDCP1 (D-1) is recommended for detection of CDCP1 isoforms 1 and 2 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 CDCP1 siRNA (h): sc-44640, CDCP1 shRNA Plasmid (h): sc-44640-SH and CDCP1 shRNA (h) Lentiviral Particles: sc-44640-V.

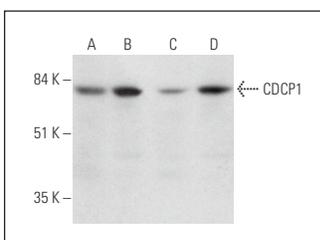
Molecular Weight of CDCP1: 140/80 kDa.

Positive Controls: A549 cell lysate: sc-2413, SW480 cell lysate: sc-2219 or Ca Ski whole cell lysate: sc-364360.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



CDCP1 (D-1): sc-515545. Western blot analysis of CDCP1 expression in A549 (A), SW480 (B), HCT-116 (C) and Ca Ski (D) 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.

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