SANTA CRUZ BIOTECHNOLOGY, INC.

DOC1 (D-2): sc-376472

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

DOC1 (down-regulated in ovarian cancer-1), also known as Filamin A-interacting protein 1-like and GPBP-interacting protein, is a 1,135 amino acid protein that was originally cloned from normal ovarian epithelial cell lines, but was consistently found to be absent in ovarian cancer cell lines. Knockdown of DOC1 mRNA results in suppression of the EMAP II-stimulated gene expression of DOC1 as well as four other genes, suggesting that DOC1 may mediate the effect of EMAP II. The gene encoding DOC1 is upregulated in endothelial cells treated with angiogenesis inhibitors, which alludes to its potential benefit as a antivascular reagent for cancer therapy. There are five isoforms of DOC1 that exist as a result of alternative splicing events.

REFERENCES

1. Mok, S.C., et al. 1994. Molecular cloning of differentially expressed genes in human epithelial ovarian cancer. Gynecol. Oncol. 52: 247-252.
2. Mok, S.C., et al. 1998. DOC-2, a candidate tumor suppressor gene in human epithelial ovarian cancer. Oncogene 16: 2381-2387.
3. Santin, A.D., et al. 2004. Gene expression profiles in primary ovarian serous papillary tumors and normal ovarian epithelium: identification of candidate molecular markers for ovarian cancer diagnosis and therapy. Int. J. Cancer 112: 14-25.
4. Ing, N.H., et al. 2004. Gene expression in the spermatogenically inactive "dark" and maturing "light" testicular tissues of the prepubertal colt. J. Androl. 25: 535-544.

CHROMOSOMAL LOCATION

Genetic locus: FILIP1L (human) mapping to 3q12.1; Filip1l (mouse) mapping to 16 C1.1.

SOURCE

DOC1 (D-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 719-753 within an internal region of DOC1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DOC1 (D-2) is available conjugated to agarose (sc-376472 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376472 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376472 PE), fluorescein (sc-376472 FITC), Alexa Fluor® 488 (sc-376472 AF488), Alexa Fluor® 546 (sc-376472 AF546), Alexa Fluor® 594 (sc-376472 AF594) or Alexa Fluor® 647 (sc-376472 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376472 AF680) or Alexa Fluor® 790 (sc-376472 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376472 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

DOC1 (D-2) is recommended for detection of DOC1 of mouse, rat and 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).

DOC1 (D-2) is also recommended for detection of DOC1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for DOC1 siRNA (h): sc-78325, DOC1 shRNA Plasmid (h): sc-78325-SH and DOC1 shRNA (h) Lentiviral Particles: sc-78325-V.

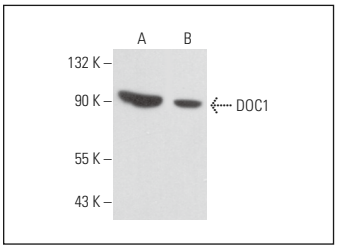
Molecular Weight of DOC1: 130 kDa.

Positive Controls: DOC1 (h): 293T Lysate: sc-114195, HUV-EC-C whole cell lysate: sc-364180 or ECV304 cell lysate: sc-2269.

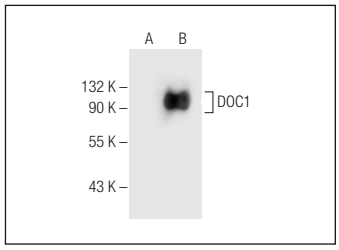
RECOMMENDED SUPPORT REAGENTS

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 A/G PLUS-Agarose: sc-2003 (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



DOC1 (D-2): sc-376472. Western blot analysis of DOC1 expression in HUV-EC-C (**A**) and ECV304 (**B**) whole cell lysates.



DOC1 (D-2): sc-376472. Western blot analysis of DOC1 expression in non-transfected: sc-117752 (**A**) and human DOC1 transfected: sc-114195 (**B**) 293T 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.