

## TACC3 (C-2): sc-376883



The Power to Question

## BACKGROUND

TACC1 (transforming acidic coiled coil gene 1) is one of three TACC family members, which are thought to be involved in breast tumorigenesis. TACC1 is located on 8p11 chromosomal region that is amplified in approximately 15% of all breast tumor samples. The short arm of chromosome 8 also contains FGFR1 whose expression is enhanced in most breast cancer tumors. TACC family members, TACC1, TACC2 and TACC3, map very closely to the corresponding FGFR1, FGFR2 and FGFR3 genes on chromosomes 8, 10 and 4. Subsequently, since they are phylogenetically related, it is proposed that TACC and FGFR have similar roles in cell growth and differentiation. Also, TACC1 contains a conserved C-terminal region as in the *Drosophila* homolog, D-TACC. It has been shown that D-TACC is necessary for normal spindle function, and the mammalian TACC proteins appears to interact with centrosomes and microtubules in a similar manner.

## REFERENCES

1. Dib, A., et al. 1995. Characterization of the region of the short arm of chromosome 8 amplified in breast carcinoma. *Oncogene* 10: 995-1001.
2. Yoshimura, N., et al. 1998. The expression and localization of fibroblast growth factor-1 (FGF-1) and FGF receptor-1 (FGFR-1) in human breast cancer. *Clin. Immunol. Immunopathol.* 89: 28-34.

## CHROMOSOMAL LOCATION

Genetic locus: TACC3 (human) mapping to 4p16.3; Tacc3 (mouse) mapping to 5 B2.

## SOURCE

TACC3 (C-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 45-83 within an internal region of TACC3 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TACC3 (C-2) is available conjugated to agarose (sc-376883 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376883 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376883 PE), fluorescein (sc-376883 FITC), Alexa Fluor® 488 (sc-376883 AF488), Alexa Fluor® 546 (sc-376883 AF546), Alexa Fluor® 594 (sc-376883 AF594) or Alexa Fluor® 647 (sc-376883 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376883 AF680) or Alexa Fluor® 790 (sc-376883 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376883 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## STORAGE

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

## APPLICATIONS

TACC3 (C-2) is recommended for detection of TACC3 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

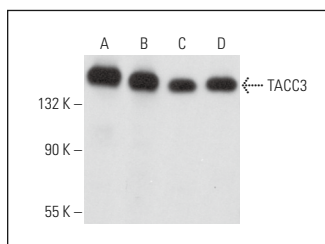
TACC3 (C-2) is also recommended for detection of TACC3 in additional species, including canine and porcine.

Suitable for use as control antibody for TACC3 siRNA (h): sc-36602, TACC3 siRNA (m): sc-36603, TACC3 shRNA Plasmid (h): sc-36602-SH, TACC3 shRNA Plasmid (m): sc-36603-SH, TACC3 shRNA (h) Lentiviral Particles: sc-36602-V and TACC3 shRNA (m) Lentiviral Particles: sc-36603-V.

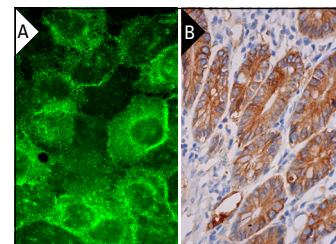
Molecular Weight of TACC3: 140 kDa.

Positive Controls: HT-29 whole cell lysate: sc-364232, MCF7 whole cell lysate: sc-2206 or HL-60 whole cell lysate: sc-2209.

## DATA



TACC3 (C-2): sc-376883. Western blot analysis of TACC3 expression in HL-60 (A), HT-29 (B), A549 (C) and MCF7 (D) whole cell lysates.



TACC3 (C-2): sc-376883. Immunofluorescence staining of formalin-fixed A-431 cells showing cytoplasmic and membrane localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic and membrane staining of glandular cells (B).

## SELECT PRODUCT CITATIONS

1. Zhu, X., et al. 2016. Knockdown of TACC3 inhibits trophoblast cell migration and invasion through the PI3K/Akt signaling pathway. *Mol. Med. Rep.* 14: 3437-3442.
2. Qie, Y., et al. 2020. TACC3 promotes prostate cancer cell proliferation and restrains primary cilium formation. *Exp. Cell Res.* 390: 111952.
3. Vit, G., et al. 2022. Chemogenetic profiling reveals PP2A-independent cytotoxicity of proposed PP2A activators iHAP1 and DT-061. *EMBO J.* 41: e110611.
4. Wang, Y.Z., et al. 2023. Discovery of pyrazolo[1,5-a]pyrimidine derivative as a novel and selective ALKBH5 inhibitor for the treatment of AML. *J. Med. Chem.* 66: 15944-15959.

## RESEARCH USE

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