

TACC1 (E-3): sc-377373

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 8p11.22 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, 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.
3. Ugolini, F., et al. 1999. Differential expression assay of chromosome arm 8p genes identifies Frizzled-related (FRP1/FRZB) and fibroblast growth factor receptor 1 (FGFR1) as candidate breast cancer genes. *Oncogene* 18: 1903-1910.

CHROMOSOMAL LOCATION

Genetic locus: TACC1 (human) mapping to 8p11.22; Tacc1 (mouse) mapping to 8 A2.

SOURCE

TACC1 (E-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 47-85 near the N-terminus of TACC1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TACC1 (E-3) is available conjugated to agarose (sc-377373 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377373 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377373 PE), fluorescein (sc-377373 FITC), Alexa Fluor® 488 (sc-377373 AF488), Alexa Fluor® 546 (sc-377373 AF546), Alexa Fluor® 594 (sc-377373 AF594) or Alexa Fluor® 647 (sc-377373 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377373 AF680) or Alexa Fluor® 790 (sc-377373 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-377373 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

TACC1 (E-3) is recommended for detection of TACC1 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).

Suitable for use as control antibody for TACC1 siRNA (h): sc-37499, TACC1 siRNA (m): sc-154042, TACC1 shRNA Plasmid (h): sc-37499-SH, TACC1 shRNA Plasmid (m): sc-154042-SH, TACC1 shRNA (h) Lentiviral Particles: sc-37499-V and TACC1 shRNA (m) Lentiviral Particles: sc-154042-V.

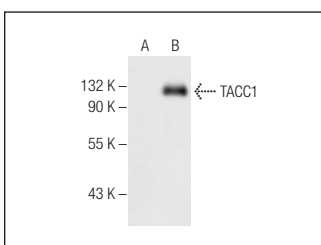
Molecular Weight of TACC1: 125 kDa.

Positive Controls: TACC1 (m): 293 Lysate: sc-179572.

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



TACC1 (E-3): sc-377373. Western blot analysis of TACC1 expression in non-transfected: sc-110760 (A) and mouse TACC1 transfected: sc-179572 (B) 293 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.