

# TACC3 (C-5): sc-271165

## 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, 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.
4. Still, I.H., et al. 1999. Cloning of TACC1, an embryonically expressed, potentially transforming coiled coil containing gene, from the 8p11 breast cancer amplicon. *Oncogene* 18: 4032-4038.
5. Still, I.H., et al. 1999. The third member of the transforming acidic coiled coil-containing gene family, TACC3, maps in 4p16, close to translocation breakpoints in multiple myeloma, and is upregulated in various cancer cell lines. *Genomics* 58: 165-170.

## CHROMOSOMAL LOCATION

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

## SOURCE

TACC3 (C-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 19-41 near the N-terminus of TACC3 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> 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-271165 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

TACC3 (C-5) 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).

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.

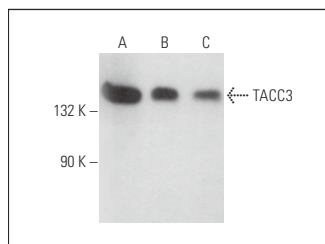
Molecular Weight of TACC3: 140 kDa.

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

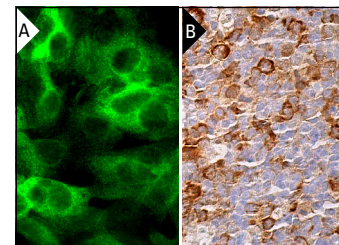
## RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



TACC3 (C-5): sc-271165. Western blot analysis of TACC3 expression in HL-60 (A), HT-29 (B) and MCF7 (C) whole cell lysates.



TACC3 (C-5): sc-271165. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing cytoplasmic staining of cells in germinal and non-germinal centers (B).

## 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.