SANTA CRUZ BIOTECHNOLOGY, INC.

TACC3 (T-17): sc-5885

SANTA CRUZ BIOTECHNOLOGY

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, FGFR3 genes on chromosomes 4, 8, and 10. 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.

CHROMOSOMAL LOCATION

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

SOURCE

TACC3 (T-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TACC3 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-5885 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

TACC3 (T-17) is recommended for detection of TACC3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

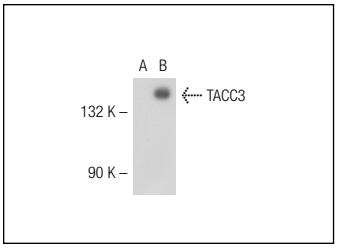
TACC3 (T-17) is also recommended for detection of TACC3 in additional species, including equine, canine, bovine and porcine.

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.

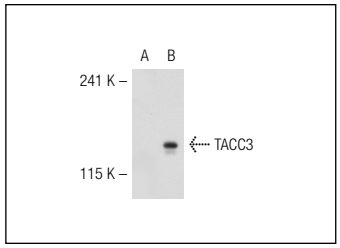
Molecular Weight of TACC3: 140 kDa.

Positive Controls: TACC3 (h): 293T Lysate: sc-111721, TACC3 (m): 293T Lysate: sc-123890 or HeLa whole cell lysate: sc-2200.

DATA



TACC3 (T-17): sc-5885. Western blot analysis of TACC3 expression in non-transfected: sc-117752 (**A**) and human TACC3 transfected: sc-111721 (**B**) 293T whole cell lysates.



TACC3 (T-17): sc-5885. Western blot analysis of TACC3 expression in non-transfected: sc-117752 (**A**) and mouse TACC3 transfected: sc-123890 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Lauffart, B., et al. 2005. Aberrations of TACC1 and TACC3 are associated with ovarian cancer. BMC Womens Health 5: 8.
2. Ulisse, S., et al. 2007. Transforming acidic coiled-coil 3 and Aurora-A interact in human thyrocytes and their expression is deregulated in thyroid cancer tissues. Endocr. Relat. Cancer 14: 827-837.
3. Partch, C.L., et al. 2011. Coactivators necessary for transcriptional output of the hypoxia inducible factor, HIF, are directly recruited by ARNT PAS-B. Proc. Natl. Acad. Sci. USA 108: 7739-7744.