

## TACC2 (H-8): sc-515342



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 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.

## CHROMOSOMAL LOCATION

Genetic locus: TACC2 (human) mapping to 10q26.13; Tacc2 (mouse) mapping to 7 F3.

## SOURCE

TACC2 (H-8) is a mouse monoclonal antibody raised against amino acids 2294-2421 mapping near the C-terminus of TACC2 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.

TACC2 (H-8) is available conjugated to agarose (sc-515342 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515342 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515342 PE), fluorescein (sc-515342 FITC), Alexa Fluor® 488 (sc-515342 AF488), Alexa Fluor® 546 (sc-515342 AF546), Alexa Fluor® 594 (sc-515342 AF594) or Alexa Fluor® 647 (sc-515342 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515342 AF680) or Alexa Fluor® 790 (sc-515342 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

TACC2 (H-8) is recommended for detection of TACC2 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).

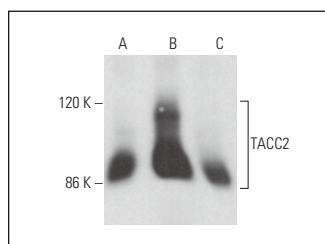
Suitable for use as control antibody for TACC2 siRNA (h): sc-37500, TACC2 siRNA (m): sc-37501, TACC2 shRNA Plasmid (h): sc-37500-SH, TACC2 shRNA Plasmid (m): sc-37501-SH, TACC2 shRNA (h) Lentiviral Particles: sc-37500-V and TACC2 shRNA (m) Lentiviral Particles: sc-37501-V.

Positive Controls: c4 whole cell lysate: sc-364186, HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

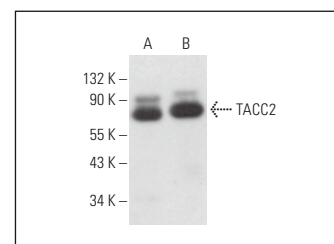
## RECOMMENDED SUPPORT REAGENTS

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



TACC2 (H-8): sc-515342. Western blot analysis of TACC2 expression in c4 (A), A549 (B) and F9 (C) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



TACC2 (H-8): sc-515342. Western blot analysis of TACC2 expression in HeLa (A) and NIH/3T3 (B) 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](http://www.scbt.com) for detailed protocols and support products.