SANTA CRUZ BIOTECHNOLOGY, INC.

TAB182 (G-5): sc-514490

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Tankyrase-1 and -2 are closely related poly(ADP-ribose) polymerases that colocalize and use an ankyrin-repeat domain to bind diverse proteins, including TRF-1 (telomere-repeat-binding factor 1), IRAP (insulin-responsive aminopeptidase), and TAB182. Tankyrase-1 and Tankyrase-2 mediate overlapping functions, both at telomeres and in vesicular compartments. TAB182 is a Tankyrase binding protein which not only binds to the ANK repeat domain of Tankyrase-1 and Tankyrase-2, but also serves as an acceptor of poly(ADP-ribosyl)ation by Tankyrase-1. TAB182 is expressed in multiple tissues such as the kidney, pancreas, heart, lung, liver, and ovary, as well as the brain and peripheral blood leukocytes, to a lesser extent. The TAB182 protein localizes to nucleus and to the cytoplasm, where it colocalizes with the cortical actin network. Two basic regions at the N-terminal and C-terminal domains of TAB182 and a large internal acidic region comprise TAB182. The C-terminal domain also contains two possible nuclear localization signals.

REFERENCES

1. Cook, B.D., et al. 2002. Role for the related poly(ADP-Ribose) polymerases tankyrase 1 and 2 at human telomeres. Mol. Cell. Biol. 22: 332-342.
2. Seimiya, H., et al. 2002. The telomeric poly(ADP-ribose) polymerase, tankyrase 1, contains multiple binding sites for telomeric repeat binding factor 1 (TRF1) and a novel acceptor, 182-kDa tankyrase-binding protein (TAB182). J. Biol. Chem. 277: 14116-14126.
3. Sbodio, J.I., et al. 2002. Identification of a tankyrase-binding motif shared by IRAP, TAB182, and human TRF1 but not mouse TRF1. NuMA contains this RXXPDG motif and is a novel tankyrase partner. J. Biol. Chem. 277: 31887-31892.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607104. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Kuimov, A.N., et al. 2003. Soluble tankyrase located in cytosol of human embryonic kidney cell line 293. Biochemistry 68: 260-268.

CHROMOSOMAL LOCATION

Genetic locus: TNKS1BP1 (human) mapping to 11q12.1.

SOURCE

TAB182 (G-5) is a mouse monoclonal antibody raised against amino acids 1084-1140 mapping within an internal region of TAB182 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

TAB182 (G-5) is recommended for detection of TAB182 of 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 TAB182 siRNA (h): sc-61633, TAB182 shRNA Plasmid (h): sc-61633-SH and TAB182 shRNA (h) Lentiviral Particles: sc-61633-V.

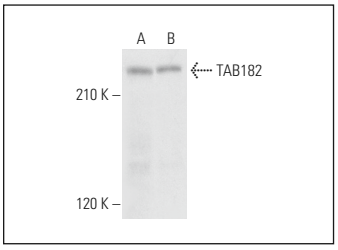
Molecular Weight of TAB182: 182 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or HEK293 whole cell lysate: sc-45136.

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



TAB182 (G-5): sc-514490. Western blot analysis of TAB182 expression in HeLa (**A**) and HEK293 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. He, H., et al. 2023. Downregulation of TAB182 promotes cancer stem-like cell properties and therapeutic resistance in triple-negative breast cancer cells. BMC Cancer 23: 1101.

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.