

TAB182 (G-20): sc-49260

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-ribosylation) 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 2 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. Sbdio, 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 Mosc.* 68: 260-268.

CHROMOSOMAL LOCATION

Genetic locus: TNKS1BP1 (human) mapping to 11q12.1; Tnks1bp1 (mouse) mapping to 2 D.

SOURCE

TAB182 (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TAB182 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-49260 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

TAB182 (G-20) is recommended for detection of TAB182 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

TAB182 (G-20) is also recommended for detection of TAB182 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TAB182 siRNA (h): sc-61633, TAB182 siRNA (m): sc-155970, TAB182 shRNA Plasmid (h): sc-61633-SH, TAB182 shRNA Plasmid (m): sc-155970-SH, TAB182 shRNA (h) Lentiviral Particles: sc-61633-V and TAB182 shRNA (m) Lentiviral Particles: sc-155970-V.

Molecular Weight of TAB182: 182 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **TAB182 (D-5): sc-514517** or **TAB182 (G-5): sc-514490**, our highly recommended monoclonal alternatives to TAB182 (G-20).