SANTA CRUZ BIOTECHNOLOGY, INC.

TBC1D19 (E-6): sc-377463

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

TBC1D19 (TBC1 domain family member 19) is a 526 amino acid protein that contains one Rab-GAP TBC domain and may act as a GTPase-activating protein for Rab family proteins. The gene that encodes TBC1D19 contains 178,915 bases and maps to human chromosome 4p15.2. Chromosome 4 represents approximately 6% of the human genome and contains nearly 900 genes. Notably, the Huntingtin gene, which is found to encode an expanded glutamine tract in cases of Huntington's disease, is on chromosome 4. FGFR-3 is also encoded by a gene located on chromosome 4 and has been associated with thanatophoric dwarfism, achondroplasia, Muenke syndrome and bladder cancer. Chromosome 4 is tied to Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

1. Bonaventure, J., et al. 1996. Common mutations in the fibroblast growth factor receptor 3 (FGFR 3) gene account for achondroplasia, hypochondroplasia, and thanatophoric dwarfism. Am. J. Med. Genet. 63: 148-154.
2. Kalchman, M.A., et al. 1996. Huntingtin is ubiquitinated and interacts with a specific ubiquitin-conjugating enzyme. J. Biol. Chem. 271: 19385-19394.
3. Howard, T.D., et al. 1997. Autosomal dominant postaxial polydactyly, nail dystrophy, and dental abnormalities map to chromosome 4p16, in the region containing the Ellis-van Creveld syndrome locus. Am. J. Hum. Genet. 61: 1405-1412.
4. Singhrao, S.K., et al. 1998. Huntingtin protein colocalizes with lesions of neurodegenerative diseases: an investigation in Huntington's, Alzheimer's, and Pick's diseases. Exp. Neurol. 150: 213-222.

CHROMOSOMAL LOCATION

Genetic locus: TBC1D19 (human) mapping to 4p15.2; Tbc1d19 (mouse) mapping to 5 C1.

SOURCE

TBC1D19 (E-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 129-161 within an internal region of TBC1D19 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TBC1D19 (E-6) is available conjugated to agarose (sc-377463 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-377463 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377463 PE), fluorescein (sc-377463 FITC), Alexa Fluor® 488 (sc-377463 AF488), Alexa Fluor® 546 (sc-377463 AF546), Alexa Fluor® 594 (sc-377463 AF594) or Alexa Fluor® 647 (sc-377463 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377463 AF680) or Alexa Fluor® 790 (sc-377463 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-377463 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

TBC1D19 (E-6) is recommended for detection of TBC1D19 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).

TBC1D19 (E-6) is also recommended for detection of TBC1D19 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TBC1D19 siRNA (h): sc-89244, TBC1D19 siRNA (m): sc-154096, TBC1D19 shRNA Plasmid (h): sc-89244-SH, TBC1D19 shRNA Plasmid (m): sc-154096-SH, TBC1D19 shRNA (h) Lentiviral Particles: sc-89244-V and TBC1D19 shRNA (m) Lentiviral Particles: sc-154096-V.

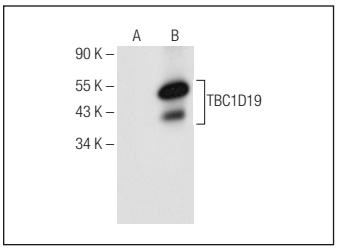
Molecular Weight of TBC1D19: 60 kDa.

Positive Controls: TBC1D19 (h): 293T Lysate: sc-114476.

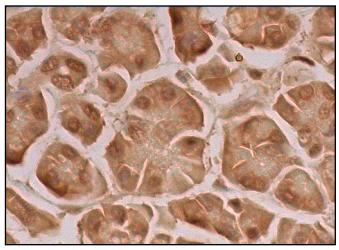
RECOMMENDED SUPPORT REAGENTS

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



TBC1D19 (E-6): sc-377463. Western blot analysis of TBC1D19 expression in non-transfected: sc-117752 (**A**) and human TBC1D19 transfected: sc-114476 (**B**) 293T whole cell lysates.



TBC1D19 (E-6): sc-377463. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic and nuclear staining of exocrine glandular cells and Islets of Langerhans.

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.