SANTA CRUZ BIOTECHNOLOGY, INC.

TBC1D5 (C-14): sc-99661

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. TBC1D5 (TBC1 domain family, member 5), also known as KIAA0210, is a 795 amino acid protein that likely acts as a GTPase-activating protein for Rab family members. TBC1D5 contains one Rab-GAP TBC domain and multiple phosphoserine and phosphothreonine residues. The gene encoding TBC1D5 maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. Key tumor suppressing genes on chromosome 3 include those that encode the apoptosis mediator RASSF1, the cell migration regulator HYAL1 and the angiogenesis suppressor SEMA3B. Marfan syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-Tooth disease are a few of the numerous genetic diseases associated with chromosome 3.

REFERENCES

1. De Jonghe, P., et al. 1997. Mutilating neuropathic ulcerations in a chromosome 3q13-q22 linked Charcot-Marie-Tooth disease type 2B family. J. Neurol. Neurosurg. Psychiatr. 62: 570-573.
2. Braga, E.A., et al. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. Mol. Biol. 37: 194-211.
3. Brill, L.M., et al. 2004. Robust phosphoproteomic profiling of tyrosine phosphorylation sites from human T cells using immobilized metal affinity chromatography and tandem mass spectrometry. Anal. Chem. 76: 2763-2772.
4. Tsend-Ayush, E., et al. 2004. Plasticity of human chromosome 3 during primate evolution. Genomics 83: 193-202.
5. Yue, Y., et al. 2005. Comparative cytogenetics of human chromosome 3q21.3 reveals a hot spot for ectopic recombination in hominoid evolution. Genomics 85: 36-47.

CHROMOSOMAL LOCATION

Genetic locus: TBC1D5 (human) mapping to 3p24.3; Tbc1d5 (mouse) mapping to 17 C.

SOURCE

TBC1D5 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of TBC1D5 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-99661 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.

APPLICATIONS

TBC1D5 (C-14) is recommended for detection of TBC1D5 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); non cross-reactive with other TBC1 family members.

Suitable for use as control antibody for TBC1D5 siRNA (h): sc-78234, TBC1D5 siRNA (m): sc-154107, TBC1D5 shRNA Plasmid (h): sc-78234-SH, TBC1D5 shRNA Plasmid (m): sc-154107-SH, TBC1D5 shRNA (h) Lentiviral Particles: sc-78234-V and TBC1D5 shRNA (m) Lentiviral Particles: sc-154107-V.

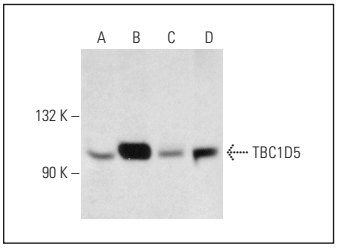
Molecular Weight of TBC1D5: 89 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, U-937 cell lysate: sc-2239 or TBC1D5 (h): 293T Lysate: sc-113811.

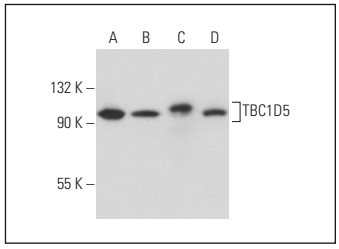
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



TBC1D5 (C-14): sc-99661. Western blot analysis of TBC1D5 expression in non-transfected 293T: sc-117752 (**A**), human TBC1D5 transfected 293T: sc-113811 (**B**), Caki-1 (**C**) and PC-3 (**D**) whole cell lysates.



TBC1D5 (C-14): sc-99661. Western blot analysis of TBC1D5 expression in Jurkat (**A**), U-93 (**B**), 3T3-L1 (**C**) and CCD1064-SK (**D**) whole cell lysates.

RESEARCH USE

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

MONOS Satisfaction Guaranteed

Try **TBC1D5 (E-9): sc-376296**, our highly recommended monoclonal alternative to TBC1D5 (C-14).