

TBC1D7 (N-13): sc-137825

BACKGROUND

TBC1D7 (TBC1 domain family, member 7), also known as PIG51 or cell migration-inducing protein 23, is a 293 amino acid protein that localizes to the cytoplasmic vesicle of the endomembrane in conjunction with the hamartin-tuberin complex. TBC1D7 is thought to function in GTPase activation of Rab proteins, and may negatively regulate hamartin through FRAP activation. Existing as two alternatively spliced isoforms, TBC1D7 is highly expressed in heart and is found at low levels in placenta, kidney and liver. TBC1D7 contains one RabGAP TBC domain and is encoded by a gene that maps to human chromosome 6. Chromosome 6 contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

CHROMOSOMAL LOCATION

Genetic locus: TBC1D7 (human) mapping to 6p24.1; Tbc1d7 (mouse) mapping to 13 A4.

SOURCE

TBC1D7 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of TBC1D7 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-137825 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TBC1D7 (N-13) is recommended for detection of TBC1D7 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 TBC1D family members.

TBC1D7 (N-13) is also recommended for detection of TBC1D7 in additional species, including bovine and porcine.

Suitable for use as control antibody for TBC1D7 siRNA (h): sc-95616, TBC1D7 siRNA (m): sc-154108, TBC1D7 shRNA Plasmid (h): sc-95616-SH, TBC1D7 shRNA Plasmid (m): sc-154108-SH, TBC1D7 shRNA (h) Lentiviral Particles: sc-95616-V and TBC1D7 shRNA (m) Lentiviral Particles: sc-154108-V.

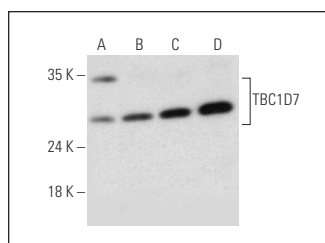
Molecular Weight of TBC1D7 isoforms: 34/31 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, Caki-1 cell lysate: sc-2224 or JAR cell lysate: sc-2276.

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



TBC1D7 (N-13): sc-137825. Western blot analysis of TBC1D7 expression in A-10 (A), Hep G2 (B), Caki-1 (C) and JAR (D) 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 or our catalog for detailed protocols and support products.

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Try **TBC1D7 (C-9): sc-514595**, our highly recommended monoclonal alternative to TBC1D7 (N-13).