SANTA CRUZ BIOTECHNOLOGY, INC.

TBC1D2 (Q-14): sc-137818

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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. TBC1D2 (TBC1 domain family member 2), also known as Armus or PARIS-1 (prostate antigen recognized and identified by SEREX 1), is a 928 amino acid protein containing a Rab-GAP TBC domain and a PH domain. Localizing to cytoplasm, cytoplasmic vesicles and cell junctions, TBC1D2 is expressed in a broad range of tissues, including kidney, liver, lung and placenta, as well as in keratinocytes and epithelia-containing organs. TBC1D2 functions as a GTPase-activating protein for RAB7, and also acts as a linker between RAB7 and RAC1, which leads to RAB7A inactivation and inhibition of E-cadherin degradation. Existing as six alternatively spliced isoforms, the gene encoding TBC1D2 maps to human chromosome 9q22.33.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TBC1D2 (human) mapping to 9q22.33; Tbc1d2 (mouse) mapping to 4 B1.

SOURCE

TBC1D2 (Q-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TBC1D2 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-137818 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TBC1D2 (Q-14) is recommended for detection of TBC1D2 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.

Suitable for use as control antibody for TBC1D2 siRNA (h): sc-92736, TBC1D2 siRNA (m): sc-154097, TBC1D2 shRNA Plasmid (h): sc-92736-SH, TBC1D2 shRNA Plasmid (m): sc-154097-SH, TBC1D2 shRNA (h) Lentiviral Particles: sc-92736-V and TBC1D2 shRNA (m) Lentiviral Particles: sc-154097-V.

Molecular Weight of TBC1D2 isoforms 1-6: 105/104/97/82/58/54 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) 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.

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.