

TBC1D8B (T-16): sc-324407

BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. TBC1D8B (TBC1 domain family, member 8B) is a 1,120 amino acid protein containing one EEF-hand domain, 2 GRAM domains and a Rab-GAP TBC domain. Existing as two alternatively spliced isoforms, the gene encoding TBC1D8B maps to human chromosome Xq22.3. Chromosome X consists of nearly 153 million base pairs encoding approximately 1,000 genes. More than one copy of the X chromosome with a Y chromosome causes Klinefelter's syndrome. A single copy of X alone leads to Turner's syndrome. More than 2 copies of the X chromosome, in the absence of a Y chromosome, is known as Triple X syndrome. Color blindness, hemophilia, and Duchenne muscular dystrophy are X chromosome-linked conditions that affect males more frequently because males carry a single X chromosome.

REFERENCES

- Givens, J.R., et al. 1975. Features of Turner's syndrome in women with polycystic ovaries. *Obstet. Gynecol.* 45: 619-624.
- Bernardino-Sgheri, J., et al. 2002. Overall DNA methylation and chromatin structure of normal and abnormal X chromosomes. *Cytogenet. Genome Res.* 99: 85-91.
- Ozgelik, T. 2002. Uncovering the complex mysteries of mosaicism. *Nature* 417: 588.
- Muntoni, F., et al. 2003. Dystrophin and mutations: one gene, several proteins, multiple phenotypes. *Lancet Neurol.* 2: 731-740.
- Deeb, S.S. 2005. The molecular basis of variation in human color vision. *Clin. Genet.* 67: 369-377.
- Bojesen, A., et al. 2006. The metabolic syndrome is frequent in Klinefelter's syndrome and is associated with abdominal obesity and hypogonadism. *Diabetes Care* 29: 1591-1598.
- Hayashi, T., et al. 2006. Novel form of a single X-linked visual pigment gene in a unique dichromatic color-vision defect. *Vis. Neurosci.* 23: 411-417.
- Augui, S., et al. 2007. Sensing X chromosome pairs before X inactivation via a novel X-pairing region of the Xic. *Science* 318: 1632-1636.
- Rolle, U., et al. 2007. Duodenal atresia in an infant with triple-X syndrome: a new associated malformation in 47,XXX. *Birth Defects Res. A Clin. Mol. Teratol.* 79: 612-613.

CHROMOSOMAL LOCATION

Genetic locus: TBC1D8B (human) mapping to Xq22.3; Tbc1d8b (mouse) mapping to X F1.

SOURCE

TBC1D8B (T-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TBC1D8B of human origin.

RESEARCH USE

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

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-324407 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TBC1D8B (T-16) is recommended for detection of TBC1D8B 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); non cross-reactive with TBC1D8.

TBC1D8B (T-16) is also recommended for detection of TBC1D8B in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TBC1D8B siRNA (h): sc-91329, TBC1D8B siRNA (m): sc-154110, TBC1D8B shRNA Plasmid (h): sc-91329-SH, TBC1D8B shRNA Plasmid (m): sc-154110-SH, TBC1D8B shRNA (h) Lentiviral Particles: sc-91329-V and TBC1D8B shRNA (m) Lentiviral Particles: sc-154110-V.

Molecular Weight of TBC1D8B isoforms 1/2: 129/72 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

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.