

KCTD11 (E-16): sc-107659

BACKGROUND

The BTB (broad-complex, tramtrack and bric a brac) domain, also known as the POZ (poxvirus and zinc finger) domain, is an N-terminal homodimerization domain that contains multiple copies of kelch repeats and/or C₂H₂-type zinc fingers. Proteins that contain BTB domains are thought to be involved in transcriptional regulation via control of chromatin structure and function. KCTD11 (potassium channel tetramerisation domain containing 11), alternately known as BTB/POZ domain-containing protein KCTD11 or REN, is a 232 amino acid regulator of neuronal differentiation that induces growth arrest, apoptosis and the expression of p27, a cyclin-dependent kinase inhibitor. Expressed at highest levels in cerebellum, KCTD11 functions as an antagonist of the hedgehog pathway and activator of the caspase cascade. Haploinsufficiency of KCTD11 may be the cause of a malignant cerebellar embryonal tumor known as medulloblastoma (MDB).

REFERENCES

1. Rubin, J.B. and Rowitch, D.H. 2002. Medulloblastoma: a problem of developmental biology. *Cancer Cell* 2: 7-8.
2. Gallo, R., et al. 2002. REN: a novel, developmentally regulated gene that promotes neural cell differentiation. *J. Cell Biol.* 158: 731-740.
3. De Smaele, E., et al. 2004. Chromosome 17p deletion in human medulloblastoma: a missing checkpoint in the hedgehog pathway. *Cell Cycle* 3: 1263-1266.
4. Di Marcotullio, L., et al. 2004. REN(KCTD11) is a suppressor of hedgehog signaling and is deleted in human medulloblastoma. *Proc. Natl. Acad. Sci. USA* 101: 10833-10838.
5. Ferretti, E., et al. 2005. Hedgehog checkpoints in medulloblastoma: the chromosome 17p deletion paradigm. *Trends Mol. Med.* 11: 537-545.
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CHROMOSOMAL LOCATION

Genetic locus: KCTD11 (human) mapping to 17p13.1.

SOURCE

KCTD11 (E-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KCTD11 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-107659 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

KCTD11 (E-16) is recommended for detection of KCTD11 of 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).

KCTD11 (E-16) is also recommended for detection of KCTD11 in additional species, including equine and porcine.

Suitable for use as control antibody for KCTD11 siRNA (h): sc-93577, KCTD11 shRNA Plasmid (h): sc-93577-SH and KCTD11 shRNA (h) Lentiviral Particles: sc-93577-V.

Molecular Weight of KCTD11 isoforms 1/2: 26/30 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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.

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.