SANTA CRUZ BIOTECHNOLOGY, INC.

KCTD11 (H-25): sc-133705

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 C_2H_2-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 (H-25) is a Protein A purified rabbit polyclonal antibody raised against synthetic KCTD11 peptide of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

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.

APPLICATIONS

KCTD11 (H-25) is recommended for detection of KCTD11 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

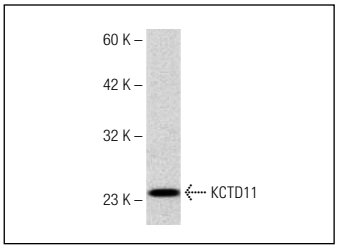
Molecular Weight of KCTD11 isoforms 1/2: 26/30 kDa.

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 goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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).

DATA



KCTD11 (H-25): sc-133705. Western blot analysis of KCTD11 expression in Hep G2 whole cell lysate.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.