

KCNQ1DN (S-14): sc-247221

BACKGROUND

KCNQ1DN (KCNQ1 downstream neighbor protein), also known as BWRT (Beckwith-wiedemann region transcript protein) or HSA404617, is a 68 amino acid protein that is encoded by a gene mapping to human chromosome 11p15.4. The gene encoding KCNQ1DN is located within the critical region for Wilms tumor-2 (WT2). WT2 is a disorder characterized by maternal-specific loss of heterozygosity within a region on chromosome 11 that encodes multiple imprinted genes, which are expressed in a manner that is parent-of-origin specific. KCNQ1DN, an imprinted gene, has reduced expression in cases of WT2, and is a candidate for involvement in Wilm's tumorigenesis. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are also associated with defects to chromosome 11-encoded genes.

REFERENCES

- Engemann, S., et al. 2000. Sequence and functional comparison in the Beckwith-Wiedemann region: implications for a novel imprinting centre and extended imprinting. *Hum. Mol. Genet.* 9: 2691-2706.
- Xin, Z., et al. 2000. A novel imprinted gene, KCNQ1DN, within the WT2 critical region of human chromosome 11p15.5 and its reduced expression in Wilms' tumors. *J. Biochem.* 128: 847-853.
- Zhu, Y., et al. 2007. A novel locus for maternally inherited human gingival fibromatosis at chromosome 11p15. *Hum. Genet.* 121: 113-123.
- Basta-Jovanovic, G., et al. 2008. Immunohistochemical analysis of γ catenin in Wilms' tumors. *Fetal Pediatr. Pathol.* 27: 63-70.
- Koch, C.M. and Wagner, W. 2011. Epigenetic-aging-signature to determine age in different tissues. *Aging* 3: 1018-1027.
- Onyango, P. and Feinberg, A.P. 2011. A nucleolar protein, H19 opposite tumor suppressor (HOTS), is a tumor growth inhibitor encoded by a human imprinted H19 antisense transcript. *Proc. Natl. Acad. Sci. USA* 108: 16759-16764.

CHROMOSOMAL LOCATION

Genetic locus: KCNQ1DN (human) mapping to 11p15.4.

SOURCE

KCNQ1DN (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of KCNQ1DN of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-247221 P, (100 μ g 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

KCNQ1DN (S-14) is recommended for detection of KCNQ1DN 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).

Suitable for use as control antibody for KCNQ1DN siRNA (h): sc-96256, KCNQ1DN shRNA Plasmid (h): sc-96256-SH and KCNQ1DN shRNA (h) Lentiviral Particles: sc-96256-V.

Molecular Weight of KCNQ1DN: 7 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) 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.