

DPY19L1 (V-15): sc-139343

BACKGROUND

Dpy-19 (dumpy-19), is a 683 amino acid *C. elegans* protein that is required to orient the neuroblasts QL and QR correctly on the anterior/posterior axis. Dpy-19 is expressed highly in dorsal hyp7 cells, ventral P cells and lateral V cells, and dorsal and ventral body muscle cells. DPY19L1 (Dpy-19-like protein 1), also known as KIAA0877, is a 675 amino acid multi-pass membrane protein that belongs to the Dpy-19 family. DPY19L1 is expressed as 2 isoforms produced by alternative splicing and is encoded by a gene mapping to human chromosome 7, which encodes over 1,000 genes and makes up about 5% of the human genome. Diseases associated with chromosome 7 include osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfort and friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are also seen in a number of myeloid disorders including cases of acute myelogenous leukemia and myelodysplasia.

REFERENCES

1. Tsipouras, P., et al. 1983. Restriction fragment length polymorphism associated with the pro $\alpha 2(I)$ gene of human type I procollagen. Application to a family with an autosomal dominant form of osteogenesis imperfecta. *J. Clin. Invest.* 72: 1262-1267.
2. Liang, H., et al. 1998. Molecular anatomy of chromosome 7q deletions in myeloid neoplasms: evidence for multiple critical loci. *Proc. Natl. Acad. Sci. USA* 95: 3781-3785.
3. Nagase, T., et al. 1998. Prediction of the coding sequences of unidentified human genes. XII. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. *DNA Res.* 5: 355-364.
4. Hillier, et al. 2003. The DNA sequence of human chromosome 7. *Nature* 424: 157-164.
5. Aglipay, J.A., et al. 2006. ATM activation by ionizing radiation requires BRCA1-associated BAAT1. *J. Biol. Chem.* 281: 9710-9718.
6. Eckert, M.A., et al. 2006. The neurobiology of Williams syndrome: cascading influences of visual system impairment? *Cell. Mol. Life Sci.* 63: 1867-1875.
7. Osborne, L.R., et al. 2006. Williams-Beuren syndrome diagnosis using fluorescence *in situ* hybridization. *Methods Mol. Med.* 126: 113-128.
8. Reiner, O., et al. 2006. Lissencephaly 1 linking to multiple diseases: mental retardation, neurodegeneration, schizophrenia, male sterility, and more. *Neuromolecular Med.* 8: 547-565.
9. Shimamura, A. 2006. Shwachman-Diamond syndrome. *Semin. Hematol.* 43: 178-188.

CHROMOSOMAL LOCATION

Genetic locus: Dpy19l1 (mouse) mapping to 9 A4.

SOURCE

DPY19L1 (V-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of DPY19L1 of mouse origin.

PRODUCT

Each vial contains 100 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-139343 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DPY19L1 (V-15) is recommended for detection of DPY19L1 of mouse and rat origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with DPY19L2, DPY19L3 or DPY19L4.

Suitable for use as control antibody for DPY19L1 siRNA (m): sc-143163, DPY19L1 shRNA Plasmid (m): sc-143163-SH and DPY19L1 shRNA (m) Lentiviral Particles: sc-143163-V.

Molecular Weight of DPY19L1 isoforms: 77/10 kDa.

Positive Controls: mouse placenta tissue extract.

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) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.