SANTA CRUZ BIOTECHNOLOGY, INC.

DMWD (G-13): sc-167639

BACKGROUND

DMWD (dystrophia myotonica WD repeat-containing protein), also known as DM9, protein 59 or protein DMR-N9, is a 674 amino acid protein containing 5 WD repeats. DMWD may play a role in the development of mental symptoms in severe cases of myotonic dystrophy, a chronic multisystemic disease characterized by wasting of the muscles, heart conduction defects, cataracts, endocrine changes and myotonia. The DMWD gene is located upstream of the DMPK gene and is prominently expressed in tissues affected in myotonic dystrophy patients. DMWD may also contribute to regulation in meiosis. DMWD is expressed in kidney and spleen, with strongest expression in brain, liver and testis. The gene encoding DMWD maps to human chromosome 19q13.32 and mouse chromosome 7 A3.

REFERENCES

1. Shaw, D.J., et al. 1993. Genomic organization and transcriptional units at the myotonic dystrophy locus. Genomics 18: 673-679.
2. Jansen, G., et al. 1995. Structural organization and developmental expression pattern of the mouse WD-repeat gene DMR-N9 immediately upstream of the myotonic dystrophy locus. Hum. Mol. Genet. 4: 843-852.
3. Alwazzan, M., et al. 1999. Myotonic dystrophy is associated with a reduced level of RNA from the DMWD allele adjacent to the expanded repeat. Hum. Mol. Genet. 8: 1491-1497.
4. Tapscott, S.J. 2000. Deconstructing myotonic dystrophy. Science 289: 1701-1702.
5. Frisch, R., et al. 2001. Effect of triplet repeat expansion on chromatin structure and expression of DMPK and neighboring genes, SIX5 and DMWD, in myotonic dystrophy. Mol. Genet. Metab. 74: 281-291.
6. Westerlaken, J.H., et al. 2003. The DMWD protein from the myotonic dystrophy (DM1) gene region is developmentally regulated and is present most prominently in synapse-dense brain areas. Brain Res. 971: 116-127.
7. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 609857. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/609857

CHROMOSOMAL LOCATION

Genetic locus: DMWD (human) mapping to 19q13.32; Dmwd (mouse) mapping to 7 A3.

SOURCE

DMWD (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DMWD of human origin.

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.

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-167639 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DMWD (G-13) is recommended for detection of DMWD 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).

DMWD (G-13) is also recommended for detection of DMWD in additional species, including canine and bovine.

Suitable for use as control antibody for DMWD siRNA (h): sc-97432, DMWD siRNA (m): sc-143067, DMWD shRNA Plasmid (h): sc-97432-SH, DMWD shRNA Plasmid (m): sc-143067-SH, DMWD shRNA (h) Lentiviral Particles: sc-97432-V and DMWD shRNA (m) Lentiviral Particles: sc-143067-V.

Molecular Weight of DMWD: 70 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.