

DTWD1 (E-5): sc-398408

BACKGROUND

DTWD1 (DTW domain-containing protein 1), also known as MDS009, is a 304 amino acid protein that contains one DXTW motif and belongs to the DTW family. Existing as three alternatively spliced isoforms, DTWD1 is encoded by a gene that maps to human chromosome 15q21.2. Chromosome 15 is made up of approximately 106 million base pairs and is about 3% of the human genome. Angelman and Prader-Willi syndromes are associated with loss of function or deletion of genes in the 15q11-q13 region. In the case of Angelman syndrome, this loss is due to inactivity of the maternal 15q11-q13 encoded UBE3A gene in the brain by either chromosomal deletion or mutation. In cases of Prader-Willi syndrome, there is a partial or complete deletion of this region from the paternal copy of chromosome 15. Tay-Sachs disease is a lethal disorder associated with mutations of the HEXA gene, which is encoded by chromosome 15. Marfan syndrome is associated with chromosome 15 through the FBN1 gene.

REFERENCES

1. Cachón-González, M.B., et al. 2006. Effective gene therapy in an authentic model of Tay-Sachs-related diseases. *Proc. Natl. Acad. Sci. USA* 103: 10373-10378.
2. Zody, M.C., et al. 2006. Analysis of the DNA sequence and duplication history of human chromosome 15. *Nature* 440: 671-675.
3. Diene, G., et al. 2007. The Prader-Willi syndrome. *Ann. Endocrinol.* 68: 129-137.
4. Lalonde, M. and Calciano, M.A. 2007. Molecular epigenetics of Angelman syndrome. *Cell. Mol. Life Sci.* 64: 947-960.

CHROMOSOMAL LOCATION

Genetic locus: DTWD1 (human) mapping to 15q21.2; Dtdw1 (mouse) mapping to 2 F1.

SOURCE

DTWD1 (E-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 27-52 near the N-terminus of DTWD1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DTWD1 (E-5) is available conjugated to agarose (sc-398408 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398408 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398408 PE), fluorescein (sc-398408 FITC), Alexa Fluor® 488 (sc-398408 AF488), Alexa Fluor® 546 (sc-398408 AF546), Alexa Fluor® 594 (sc-398408 AF594) or Alexa Fluor® 647 (sc-398408 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398408 AF680) or Alexa Fluor® 790 (sc-398408 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398408 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

DTWD1 (E-5) is recommended for detection of DTWD1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 DTWD1 siRNA (h): sc-89974, DTWD1 siRNA (m): sc-143181, DTWD1 shRNA Plasmid (h): sc-89974-SH, DTWD1 shRNA Plasmid (m): sc-143181-SH, DTWD1 shRNA (h) Lentiviral Particles: sc-89974-V and DTWD1 shRNA (m) Lentiviral Particles: sc-143181-V.

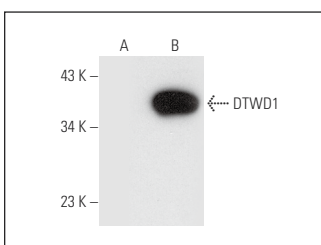
Molecular Weight of DTWD1 isoforms: 35/26/12 kDa.

Positive Controls: DTWD1 (m): 293T Lysate: sc-126744.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BPFITC: sc-516140 or m-IgGκ BPE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



DTWD1 (E-5): sc-398408. Western blot analysis of DTWD1 expression in non-transfected: sc-117752 (A) and mouse DTWD1 transfected: sc-126744 (B) 293T whole cell lysates.

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 for detailed protocols and support products.

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