SANTA CRUZ BIOTECHNOLOGY, INC.

TDRD10 (D-4): sc-398518

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The Power to Question

BACKGROUND

TDRD10 (Tudor domain-containing protein 10) is a 366 amino acid protein that contains one RRM (RNA recognition motif) domain and one Tudor domain. The TDRD10 gene encodes two alternatively spliced isoforms and maps to human chromosome 1q21.3. With roughly 3,000 genes that span about 260 million base pairs, chromosome 1 makes up approximately 8% of the human genome. There are a large number of diseases associated with chromosome 1, notably, the rare aging disease Hutchinson-Gilford progeria, which is associated with the LMNA gene that encodes lamin A. When defective, the LMNA gene product can build up in the nucleus and cause characteristic nuclear blebs. The mechanism of rapidly enhanced aging is unclear and is a topic of continuing exploration. The MUTYH gene is located on chromosome 1 and is partially responsible for familial adenomatous polyposis. Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome are also associated with chromosome 1.

REFERENCES

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2. Eudy, J.D., et al. 1998. Isolation of a gene encoding a novel member of the nuclear receptor superfamily from the critical region of Usher syndrome type IIa at 1q41. Genomics 50: 382-384.
3. Eudy, J.D., et al. 1998. Mutation of a gene encoding a protein with extracellular matrix motifs in Usher syndrome type IIa. Science 280: 1753-1757.
4. Bowling, E.L., et al. 2000. The Stickler syndrome: case reports and literature review. Optometry 71: 177-182.
5. Tayebi, N., et al. 2001. Gaucher disease and parkinsonism: a phenotypic and genotypic characterization. Mol. Genet. Metab. 73: 313-321.
6. Plasilova, M., et al. 2004. Exclusion of an extracolonic disease modifier locus on chromosome 1p33-36 in a large Swiss familial adenomatous polyposis kindred. Eur. J. Hum. Genet. 12: 365-371.
7. Oliveira, S.A., et al. 2005. Identification of risk and age-at-onset genes on chromosome 1p in Parkinson disease. Am. J. Hum. Genet. 77: 252-264.
8. Betarbet, R., et al. 2008. FAS-associated factor 1 and Parkinson's disease. Neurobiol. Dis. 31: 309-315.

CHROMOSOMAL LOCATION

Genetic locus: TDRD10 (human) mapping to 1q21.3.

SOURCE

TDRD10 (D-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 288-315 within an internal region of TDRD10 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.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-398518 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-398518 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

TDRD10 (D-4) is recommended for detection of TDRD10 of 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 TDRD10 siRNA (h): sc-78700, TDRD10 shRNA Plasmid (h): sc-78700-SH and TDRD10 shRNA (h) Lentiviral Particles: sc-78700-V.

TDRD10 (D-4) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

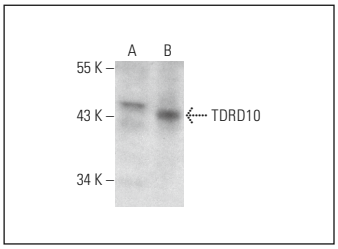
Molecular Weight of TDRD10 isoforms: 41/40 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or human salivary gland extract: sc-363762.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (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 L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



TDRD10 (D-4): sc-398518. Western blot analysis of TDRD10 expression in Hep G2 whole cell lysate (**A**) and human salivary gland tissue extract (**B**).

RESEARCH USE

For research use only, not for use in diagnostic procedures.