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# Dim1 (m2): 293T Lysate: sc-119772

## BACKGROUND

The Dim protein family consists of two classes, Dim1 and Dim2, which share a common thioredoxin-like fold, but most likely function in different biological pathways. Dim1, also known as TXNL4A (thioredoxin-like protein 4A) or spliceosomal U5 snRNP-specific 15 kDa protein, is a 142 amino acid protein that plays an essential role in pre-mRNA splicing. Due to a failure to express early zygotic transcripts, deletion of the gene encoding Dim1 in *Schizosaccharomyces pombe* leads to embryonal lethality during gastrulation. Since Dim1 shows sensitivity to a microtubule destabilizing drug, thienabendazole, it also may play a role in the formation of the mitotic spindle. This evidence demonstrates that Dim1 is essential for G<sub>2</sub>/M progression of the cell cycle and chromosomal segregation during mitosis. Localized to the nucleus, Dim1 interacts with hnRNP F, hnRNP H2, Cas-L and PQBP-1 to effect gene expression.

## REFERENCES

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4. Zhang, Y., Lindblom, T., Chang, A., Sudol, M., Sluder, A.E. and Golemis, E.A. 2000. Evidence that Dim1 associates with proteins involved in pre-mRNA splicing, and delineation of residues essential for Dim1 interactions with hnRNP F and Npw38/PQBP-1. *Gene* 257: 33-43.
5. Zhang, Y.Z., Cheng, H., Gould, K.L., Golemis, E.A. and Roder, H. 2003. Structure, stability, and function of hDim1 investigated by NMR, circular dichroism, and mutational analysis. *Biochemistry* 42: 9609-9618.
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8. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611595. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## CHROMOSOMAL LOCATION

Genetic locus: Txnl4a (mouse) mapping to 18 E3.

## PRODUCT

Dim1 (m2): 293T Lysate represents a lysate of mouse Dim1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

Dim1 (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Dim1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

## RESEARCH USE

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