

DDX56 (h): 293T Lysate: sc-175154

BACKGROUND

DEAD-box proteins, characterized by the conserved motif Asp-Glu-Ala-Asp, are putative RNA helicases implicated in several cellular processes involving modifications of RNA secondary structure and ribosome/spliceosome assembly. Based on their distribution patterns, some members of this family may be involved in embryogenesis, spermatogenesis, and cellular growth and division. DDX56 (DEAD box polypeptide 56), also known as DDX21 or NOH61, contains a helicase core region, a leucine zipper motif in its N-terminus, two putative C-terminal nuclear localization signals and several potential phosphorylation sites. DDX56 may be involved in ribosome synthesis, specifically during assembly of the large 60S ribosomal subunit.

REFERENCES

1. Py, B., Higgins, C.F., Krisch, H.M. and Carpousis, A.J. 1996. A DEAD-box RNA helicase in the *Escherichia coli* RNA degradosome. *Nature*. 381: 169-172.
2. Imamura, O., Sugawara, M. and Furuichi, Y. 1997. Cloning and characterization of a putative human RNA helicase gene of the DEAH-box protein family. *Biochem. Biophys. Res. Commun.* 240: 335-340.
3. Eisen, A., Sattah, M., Gazitt, T., Neal, K., Szauter, P. and Lucchesi, J. 1998. A novel DEAD-box RNA helicase exhibits high sequence conservation from yeast to humans. *Biochim. Biophys. Acta*. 1397: 131-136.
4. Zirwes, R.F., Eilbracht, J., Kneissel, S. and Schmidt-Zachmann, M.S. 2000. A novel helicase-type protein in the nucleolus: protein NOH61. *Mol. Biol. Cell* 11: 1153-1167.
5. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 608023. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Zhang, D.Y., Ampasala, D.R., Zheng, S.C., Cusson, M., Cheng, X.W., Krell, P.J. and Feng, Q.L. 2006. Molecular cloning and characterization of a putative nuclear DEAD box RNA helicase in the spruce budworm, *Choristoneura fumiferana*. *Arch. Insect Biochem. Physiol.* 61: 209-219.
7. Jain, C. 2008. The *E. coli* RhlE RNA helicase regulates the function of related RNA helicases during ribosome assembly. *RNA* 14: 381-389.
8. Theissen, B., Karow, A.R., Köhler, J., Gubaev, A. and Klostermeier, D. 2008. Cooperative binding of ATP and RNA induces a closed conformation in a DEAD box RNA helicase. *Proc. Natl. Acad. Sci. USA* 105: 548-553.

CHROMOSOMAL LOCATION

Genetic locus: DDX56 (human) mapping to 7p13.

PRODUCT

DDX56 (h): 293T Lysate represents a lysate of human DDX56 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

DDX56 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive DDX56 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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.