# DDX56 (h): 293 Lysate: sc-110647



The Power to Question

#### **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**

- Py, B., Higgins, C.F., Krisch, H.M. and Carpousis, A.J. 1996. A DEADbox RNA helicase in the *Escherichia coli* RNA degradosome. Nature 381: 169-172.
- 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.
- 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.
- 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/
- 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* RhIE RNA helicase regulates the function of related RNA helicases during ribosome assembly. RNA 14: 381-389.
- 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): 293 Lysate represents a lysate of human DDX56 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

# **STORAGE**

Store at -20 $^{\circ}$  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): 293 Lysate is suitable as a Western Blotting positive control for human reactive DDX56 antibodies. Recommended use: 10-20 µl per lane.

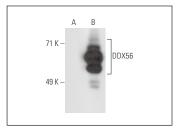
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

DDX56 (5A7): sc-101018 is recommended as a positive control antibody for Western Blot analysis of enhanced human DDX56 expression in DDX56 transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

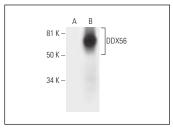
#### **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG $\kappa$  BP-HRP: sc-516102 or m-lgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>TM</sup> Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

#### DATA







DDX56 (F-5): sc-393078. Western blot analysis of DDX56 expression in non-transfected: sc-110760 (**A**) and human DDX56 transfected: sc-110647 (**B**) 293 whole cell lysates.

# **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.