

# DDX56 (H-142): sc-292757

## 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., et al. 1996. A DEAD-box RNA helicase in the *Escherichia coli* RNA degradosome. *Nature* 381: 169-172.
2. Imamura, O., et al. 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., et al. 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., et al. 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., et al. 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.

## CHROMOSOMAL LOCATION

Genetic locus: DDX56 (human) mapping to 7p13; Ddx56 (mouse) mapping to 11 A1.

## SOURCE

DDX56 (H-142) is a rabbit polyclonal antibody raised against amino acids 373-514 mapping near the C-terminus of DDX56 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-292757 X, 200 µg/0.1 ml.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

DDX56 (H-142) is recommended for detection of DDX56 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

DDX56 (H-142) is also recommended for detection of DDX56 in additional species, including porcine.

Suitable for use as control antibody for DDX56 siRNA (h): sc-89835, DDX56 siRNA (m): sc-105281, DDX56 shRNA Plasmid (h): sc-89835-SH, DDX56 shRNA Plasmid (m): sc-105281-SH, DDX56 shRNA (h) Lentiviral Particles: sc-89835-V and DDX56 shRNA (m) Lentiviral Particles: sc-105281-V.

DDX56 (H-142) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

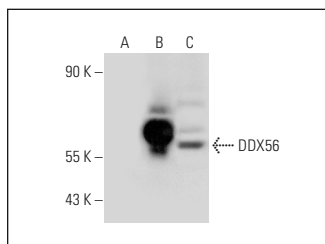
Molecular Weight of DDX56: 62 kDa.

Positive Controls: DDX56 (h): 293 Lysate: sc-110647 or A2058 whole cell lysate: sc-364178.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



DDX56 (H-142): sc-292757. Western blot analysis of DDX56 expression in non-transfected 293: sc-110760 (A), human DDX56 transfected 293: sc-110647 (B) and A2058 (C) whole cell lysates.

## RESEARCH USE

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