

DDX56 (F-5): sc-393078

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., et al. 1996. A DEAD-box RNA helicase in the *Escherichia coli* RNA degradosome. *Nature* 381: 169-172.
- 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.
- 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.
- Zirwes, R.F., et al. 2000. A novel helicase-type protein in the nucleolus: protein NOH61. *Mol. Biol. Cell* 11: 1153-1167.

CHROMOSOMAL LOCATION

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

SOURCE

DDX56 (F-5) is a mouse monoclonal antibody raised against amino acids 373-514 mapping near the C-terminus of DDX56 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ 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-393078 X, 200 µg/0.1 ml.

DDX56 (F-5) is available conjugated to agarose (sc-393078 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393078 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393078 PE), fluorescein (sc-393078 FITC), Alexa Fluor[®] 488 (sc-393078 AF488), Alexa Fluor[®] 546 (sc-393078 AF546), Alexa Fluor[®] 594 (sc-393078 AF594) or Alexa Fluor[®] 647 (sc-393078 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-393078 AF680) or Alexa Fluor[®] 790 (sc-393078 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

DDX56 (F-5) is recommended for detection of DDX56 of mouse, rat and 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 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 (F-5) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

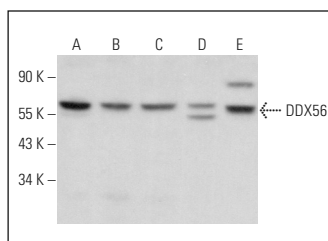
Molecular Weight of DDX56: 62 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224, HeLa whole cell lysate: sc-2200 or SK-BR-3 cell lysate: sc-2218.

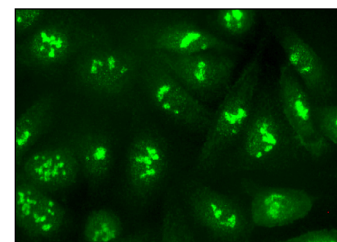
RECOMMENDED SUPPORT REAGENTS

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 A/G PLUS-Agarose: sc-2003 (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



DDX56 (F-5): sc-393078. Western blot analysis of DDX56 expression in HeLa (A), SK-BR-3 (B), Caki-1 (C), EOC 20 (D) and C6 (E) whole cell lysates.



DDX56 (F-5): sc-393078. Immunofluorescence staining of formalin-fixed SW480 cells showing nucleolar localization.

SELECT PRODUCT CITATIONS

- Wu, Q., et al. 2021. DDX56 modulates post-transcriptional Wnt signaling through miRNAs and is associated with early recurrence in squamous cell lung carcinoma. *Mol. Cancer* 20: 108.

RESEARCH USE

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