

DDX46 (B-6): sc-514071

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. DDX46 (DEAD (Asp-Glu-Ala-Asp) box polypeptide 46), also known as PRPF5, is a 1,031 amino acid protein that localizes to nuclear speckles and contains one helicase C-terminal domain and one helicase ATP-binding domain. One of several members of the DEAD-box family, DDX46 functions as an integral component of the 17S U2 snRNP and plays a crucial role in pre-mRNA splicing.

REFERENCES

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- Will, C.L., et al. 2002. Characterization of novel SF3b and 17S U2 snRNP proteins, including a human PRP5p homologue and an SF3b DEAD-box protein. *EMBO J.* 21: 4978-4988.
- Abdelhaleem, M., et al. 2003. The human DDX and DHX gene families of putative RNA helicases. *Genomics* 81: 618-622.
- Xu, Y.Z., et al. 2004. PRP5 bridges U1 and U2 snRNPs and enables stable U2 snRNP association with intron RNA. *EMBO J.* 23: 376-385.
- Cordin, O., et al. 2004. The newly discovered Q motif of DEAD-box RNA helicases regulates RNA-binding and helicase activity. *EMBO J.* 23: 2478-2487.
- Andersen, J.S., et al. 2005. Nucleolar proteome dynamics. *Nature* 433: 77-83.
- Linder, P. 2006. Dead-box proteins: a family affair—active and passive players in RNP-remodeling. *Nucleic Acids Res.* 34: 4168-4180.

CHROMOSOMAL LOCATION

Genetic locus: DDX46 (human) mapping to 5q31.1; Ddx46 (mouse) mapping to 13 B1.

SOURCE

DDX46 (B-6) is a mouse monoclonal antibody raised against amino acids 713-916 mapping within an internal region of DDX46 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.

DDX46 (B-6) is available conjugated to agarose (sc-514071 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514071 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514071 PE), fluorescein (sc-514071 FITC), Alexa Fluor® 488 (sc-514071 AF488), Alexa Fluor® 546 (sc-514071 AF546), Alexa Fluor® 594 (sc-514071 AF594) or Alexa Fluor® 647 (sc-514071 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514071 AF680) or Alexa Fluor® 790 (sc-514071 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

DDX46 (B-6) is recommended for detection of DDX46 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 DDX46 siRNA (h): sc-62202, DDX46 siRNA (m): sc-62203, DDX46 shRNA Plasmid (h): sc-62202-SH, DDX46 shRNA Plasmid (m): sc-62203-SH, DDX46 shRNA (h) Lentiviral Particles: sc-62202-V and DDX46 shRNA (m) Lentiviral Particles: sc-62203-V.

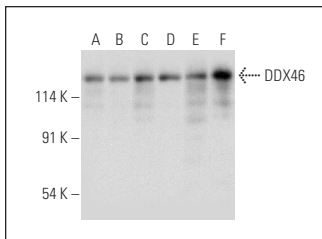
Molecular Weight of DDX46: 117 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or A-431 whole cell lysate: sc-2201.

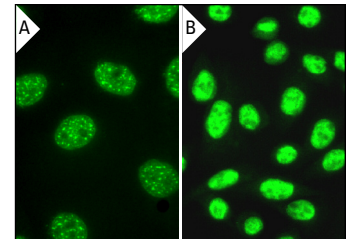
RECOMMENDED SUPPORT REAGENTS

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



DDX46 (B-6): sc-514071. Western blot analysis of DDX46 expression in RT-4 (A), U-251-MG (B), A-431 (C), HeLa (D), Jurkat (E) and MCF7 (F) whole cell lysates.



DDX46 (B-6): sc-514071. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear speckle localization (A). Immunofluorescence staining of formalin-fixed SW480 cells showing nuclear localization (B).

STORAGE

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

RESEARCH USE

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

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