

# DDX38 (A-8): sc-137218

## BACKGROUND

DDX38 (pre-mRNA-splicing factor ATP-dependent RNA helicase PRP16) is a 1,227 amino acid protein encoded by the human gene DDX38. DDX38 belongs to the DEAD-box helicase family (DEAH subfamily, PRP16 sub-subfamily) and contains one helicase ATP-binding domain and one helicase C-terminal domain. DDX38 is believed to be a probable ATP-dependent RNA helicase. RNA helicases are highly conserved enzymes that utilize the energy derived from NTP hydrolysis to modulate the structure of RNA. RNA helicases participate in all biological processes that involve RNA, including transcription, splicing and translation.

## REFERENCES

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- Ortlepp, D., et al. 1998. The mammalian homologue of PRP16p is overexpressed in a cell line tolerant to Leflunomide, a new immunoregulatory drug effective against rheumatoid arthritis. *RNA* 4: 1007-1018.
- Das, R., et al. 2000. Functional association of U2 snRNP with the ATP-independent spliceosomal complex E. *Mol. Cell* 5: 779-787.
- Carninci, P., et al. 2005. The transcriptional landscape of the mammalian genome. *Science* 309: 1559-1563.
- Ancelin, K., et al. 2006. Blimp-1 associates with PRMT5 and directs histone arginine methylation in mouse germ cells. *Nat. Cell Biol.* 8: 623-630.
- Query, C.C. and Konarska, M.M. 2006. Splicing fidelity revisited. *Nat. Struct. Mol. Biol.* 13: 472-474.
- Friend, K., et al. 2007. U2 snRNP binds intronless histone pre-mRNAs to facilitate U7-snRNP-dependent 3' end formation. *Mol. Cell* 28: 240-252.

## CHROMOSOMAL LOCATION

Genetic locus: DHX38 (human) mapping to 16q22.2; Dhx38 (mouse) mapping to 8 D3.

## SOURCE

DDX38 (A-8) is a mouse monoclonal antibody raised against amino acids 282-510 mapping within an internal region of DDX38 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DDX38 (A-8) is available conjugated to agarose (sc-137218 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-137218 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-137218 PE), fluorescein (sc-137218 FITC), Alexa Fluor® 488 (sc-137218 AF488), Alexa Fluor® 546 (sc-137218 AF546), Alexa Fluor® 594 (sc-137218 AF594) or Alexa Fluor® 647 (sc-137218 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-137218 AF680) or Alexa Fluor® 790 (sc-137218 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

DDX38 (A-8) is recommended for detection of DDX38 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 DDX38 siRNA (h): sc-93516, DDX38 siRNA (m): sc-77409, DDX38 shRNA Plasmid (h): sc-93516-SH, DDX38 shRNA Plasmid (m): sc-77409-SH, DDX38 shRNA (h) Lentiviral Particles: sc-93516-V and DDX38 shRNA (m) Lentiviral Particles: sc-77409-V.

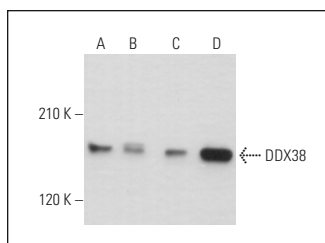
Molecular Weight of DDX38: 140 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NIH/3T3 whole cell lysate: sc-2210 or F9 cell lysate: sc-2245.

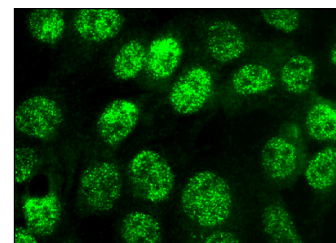
## RECOMMENDED SUPPORT REAGENTS

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



DDX38 (A-8): sc-137218. Western blot analysis of DDX38 expression in HeLa (A), PC-3 (B), NIH/3T3 (C) and F9 (D) whole cell lysates.



DDX38 (A-8): sc-137218. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

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