

DDX38 (50): sc-135880

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-family) 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

- Zhou, Z. and Reed, R. 1998. Human homologs of yeast PRP and PRP17 reveal conservation of the mechanism for catalytic step II of pre-mRNA splicing. *EMBO J.* 17: 2095-2106.
- Ortlepp, D., Lagerbauer, B., Müllner, S., Achsel, T., Kirschbaum, B. and Lüthmann, R. 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., Zhou, Z. and Reed, R. 2000. Functional association of U2 snRNP with the ATP-independent spliceosomal complex E. *Mol. Cell* 5: 779-787.
- Carninci, P., Kasukawa, T., Katayama, S., Gough, J., Frith, M.C., Maeda, N., Oyama, R., Ravasi, T., Lenhard, B., Wells, C., Kodzius, R., Shimokawa, K., Bajic, V.B., Brenner, S.E., Batalov, S., Forrest, A.R., Zavolan, M., et al. 2005. The transcriptional landscape of the mammalian genome. *Science* 309: 1559-1563.
- Ancelin, K., Lange, U.C., Hajkova, P., Schneider, R., Bannister, A.J., Kouzarides, T. and Surani, M.A. 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. *Struct. Mol. Biol.* 13: 472-474.

CHROMOSOMAL LOCATION

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

SOURCE

DDX38 (50) is a mouse monoclonal antibody raised against amino acids 1002-1203 of DDX38 of human origin.

PRODUCT

Each vial contains 50 µg IgG₁ in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin, 20% glycerol and 0.04% stabilizer protein.

STORAGE

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

APPLICATIONS

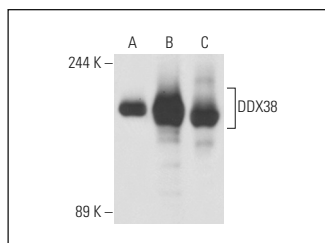
DDX38 (50) is recommended for detection of DDX38 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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.

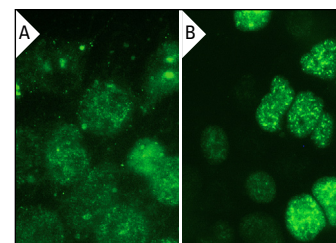
Molecular Weight of DDX38: 140 kDa.

Positive Controls: DDX38 (h): 293T Lysate: sc-174917, NIH/3T3 whole cell lysate: sc-2210 or HeLa whole cell lysate: sc-2200.

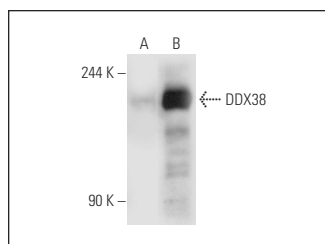
DATA



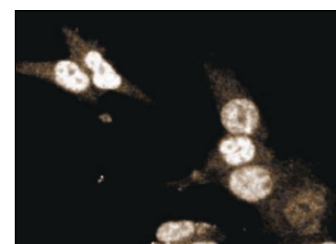
DDX38 (50): sc-135880. Western blot analysis of DDX38 expression in non-transfected 293T: sc-117752 (A), human DDX38 transfected 293T: sc-174932 (B) and NIH/3T3 (C) whole cell lysates.



DDX38 (50): sc-135880. Immunofluorescence staining of methanol-fixed untransfected (A) and human DDX38 transfected HEK293 cells (B).



DDX38 (50): sc-135880. Western blot analysis of DDX38 expression in non-transfected: sc-117752 (A) and human DDX38 transfected: sc-174917 (B) 293T whole cell lysates.



DDX38 (50): sc-135880. Immunofluorescence staining of ES2 cells showing nuclear staining.

SELECT PRODUCT CITATIONS

- Nishimura, K., Cho, Y., Tokunaga, K., Nakao, M., Tani, T. and Ideue, T. 2019. DEAH box RNA helicase DHX38 associates with satellite I noncoding RNA involved in chromosome segregation. *Genes Cells* 24: 585-590.

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.