

DDX38 (2271C1a): sc-81081

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

- Zhou, Z. and Reed, R. 1998. Human homologs of yeast prp16 and prp17 reveal conservation of the mechanism for catalytic step II of pre-mRNA splicing. *EMBO J.* 17: 2095-2106.
- 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.

CHROMOSOMAL LOCATION

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

SOURCE

DDX38 (2271C1a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to a region near the N-terminus of DDX38 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

APPLICATIONS

DDX38 (2271C1a) 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

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.

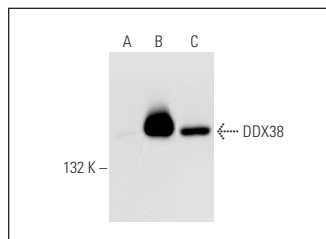
Molecular Weight of DDX38: 140 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, DDX38 (h): 293T Lysate: sc-174917 or DDX38 (m): 293T Lysate: sc-119719.

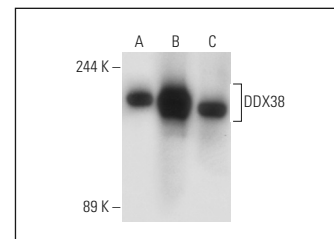
STORAGE

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

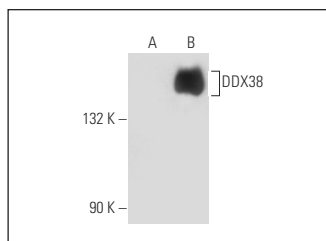
DATA



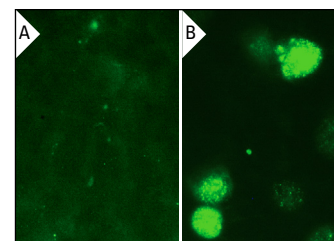
DDX38 (2271C1a): sc-81081. Western blot analysis of DDX38 expression in non-transfected 293T: sc-117752 (A), human DDX38 transfected 293T: sc-174917 (B) and HeLa (C) whole cell lysates.



DDX38 (2271C1a): sc-81081. 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 (2271C1a): sc-81081. Western blot analysis of DDX38 expression in non-transfected: sc-117752 (A) and mouse DDX38 transfected: sc-119719 (B) 293T whole cell lysates.



DDX38 (2271C1a): sc-81081. Immunofluorescence staining of methanol-fixed untransfected (A) and human DDX38 transfected HEK 293 cells (B).

SELECT PRODUCT CITATIONS

- Obuca, M., et al. 2022. Retinitis pigmentosa-linked mutation in DHX38 modulates its splicing activity. *PLoS ONE* 17: e0265742.

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.