

DDX38 (m): 293T Lysate: sc-119719

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

1. 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.
2. Ortlepp, D., Lagerbauer, B., Müllner, S., Achsel, T., Kirschbaum, B. and Lührmann, 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.
3. 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.
4. 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., Davis, M.J., Wilming, L.G., Aidinis, V., Suzuki, H., Kawai, J. and Hayashizaki, Y. 2005. The transcriptional landscape of the mammalian genome. *Science* 309: 1559-1563.
5. 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.
6. Query, C.C. and Konarska, M.M. 2006. Splicing fidelity revisited. *Nat. Struct. Mol. Biol.* 13: 472-474.
7. Friend, K., Lovejoy, A.F. and Steitz, J.A. 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 (mouse) mapping to 8 D3.

PRODUCT

DDX38 (m): 293T Lysate represents a lysate of mouse DDX38 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

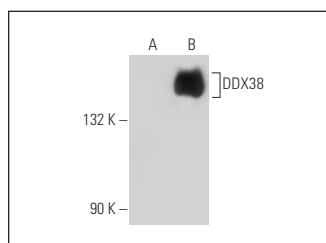
APPLICATIONS

DDX38 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive DDX38 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

DDX38 (2271C1a): sc-181081 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse DDX38 expression in DDX38 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



DDX38 (2271C1a): sc-181081. Western blot analysis of DDX38 expression in non-transfected: sc-117752 (A) and mouse DDX38 transfected: sc-119719 (B) 293T whole cell lysates.

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.