

DDX41 (B-8): sc-374024

BACKGROUND

DDX41 (Probable ATP-dependent RNA helicase DDX41, DEAD box protein abstract homolog) is a 622 amino acid protein encoded by the human gene DDX41. DDX41 belongs to the DEAD box helicase family (DDX41 subfamily) and contains one CCHC-type zinc finger, one helicase ATP-binding domain and one helicase C-terminal domain. DDX41 is required during post-transcriptional gene expression and is thought to be involved in pre-mRNA splicing. DDX41 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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3. Sekito, A., Taira, T., Niki, T., Iguchi-Arigo, S.M. and Ariga, H. 2005. Stimulation of transforming activity of DJ-1 by abstract, a DJ-1-binding protein. *Int. J. Oncol.* 26: 685-689.
4. Abdelhaleem, M. 2005. RNA helicases: regulators of differentiation. *Clin. Biochem.* 38: 499-503.
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6. Savitsky, M., Kwon, D., Georgiev, P., Kalmykova, A. and Gvozdev, V. 2006. Telomere elongation is under the control of the RNAi-based mechanism in the *Drosophila* germline. *Genes Dev.* 20: 345-354.

CHROMOSOMAL LOCATION

Genetic locus: DDX41 (human) mapping to 5q35.3; Ddx41 (mouse) mapping to 13 B1.

SOURCE

DDX41 (B-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 21-49 near the N-terminus of DDX41 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.

Blocking peptide available for competition studies, sc-374024 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

DDX41 (B-8) is recommended for detection of DDX41 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).

DDX41 (B-8) is also recommended for detection of DDX41 in additional species, including equine.

Suitable for use as control antibody for DDX41 siRNA (h): sc-91765, DDX41 siRNA (m): sc-142938, DDX41 shRNA Plasmid (h): sc-91765-SH, DDX41 shRNA Plasmid (m): sc-142938-SH, DDX41 shRNA (h) Lentiviral Particles: sc-91765-V and DDX41 shRNA (m) Lentiviral Particles: sc-142938-V.

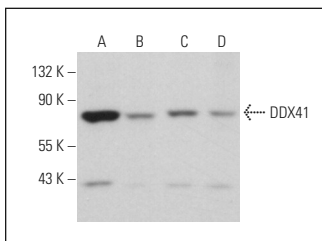
Molecular Weight of DDX41: 70 kDa.

Positive Controls: DDX41 (h): 293 Lysate: sc-113244, JAR cell lysate: sc-2276 or NIH/3T3 whole cell lysate: sc-2210.

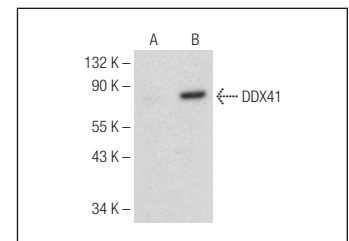
RECOMMENDED SUPPORT REAGENTS

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, TBS Blotto A Blocking Reagent: sc-2333 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



DDX41 (B-8): sc-374024. Western blot analysis of DDX41 expression in NIH/3T3 (A), MM-142 (B), JAR (C) and SW480 (D) whole cell lysates.



DDX41 (B-8): sc-374024. Western blot analysis of DDX41 expression in non-transfected: sc-110760 (A) and human DDX41 transfected: sc-113244 (B) 293 whole cell lysates.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.