SANTA CRUZ BIOTECHNOLOGY, INC.

DDX30 (D-9): sc-390663

BACKGROUND

Characterized by the conserved motif Asp-Glu-Ala-Asp, DEAD box proteins are putative RNA helicases implicated in several cellular processes involving modifications of RNA secondary structure. Specifically, DEAD box proteins are involved in translation initiation, nuclear and mitochondrial splicing, and ribosome and spliceosome assembly. Based on their distribution patterns, members of this family may be involved in embryogenesis, spermatogenesis, and cellular growth and division. DDX30, DDX35 and DDX36 each contain one helicase ATP-binding domain and one helicase C-terminal domain. DDX30 (DEAH box protein 30) is a 1,194 amino acid protein that forms a complex with TFAM and SSBP1 in the mitochondria, suggesting a role for DDX30 in mtDNA replication. There are two isoforms of DDX30 that exist as a result of alternative splicing events.

REFERENCES

1. Fu, J.J., et al. 2002. Molecular cloning and characterization of human DDX36 and mouse Ddx36 genes, new members of the DEAD/H box superfamily. Sheng Wu Hua Xue Yu Sheng Wu Wu Li Xue Bao 34: 655-661.
2. Fu, J.J., et al. 2003. Expression research for human DDX36 and mouse Ddx36 gene in the adult testis. Yi Chuan Xue Bao 30: 201-208.
3. Abdelhaleem, M. 2005. RNA helicases: regulators of differentiation. Clin. Biochem. 38: 499-503.
4. Cordin, O., et al. 2006. The DEAD-box protein family of RNA helicases. Gene 367: 17-37.
5. Wang, Y. and Bogenhagen, D.F. 2006. Human mitochondrial DNA nucleoids are linked to protein folding machinery and metabolic enzymes at the mitochondrial inner membrane. J. Biol. Chem. 281: 25791-25802.
6. Linder, P. 2006. Dead-box proteins: a family affair—active and passive players in RNP-remodeling. Nucleic Acids Res. 34: 4168-4180.
7. Fuller-Pace, F.V., et al. 2008. The DEAD box RNA helicases p68 (Ddx5) and p72 (Ddx17): novel transcriptional co-regulators. Biochem. Soc. Trans. 36: 609-612.

CHROMOSOMAL LOCATION

Genetic locus: DHX30 (human) mapping to 3p21.31; Dhx30 (mouse) mapping to 9 F2.

SOURCE

DDX30 (D-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 306-335 of DDX30 of human origin.

PRODUCT

Each vial contains 200 µg IgM 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-390663 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

DDX30 (D-9) is recommended for detection of DDX30 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).

DDX30 (D-9) is also recommended for detection of DDX30 in additional species, including equine.

Suitable for use as control antibody for DDX30 siRNA (h): sc-78188, DDX30 siRNA (m): sc-142930, DDX30 shRNA Plasmid (h): sc-78188-SH, DDX30 shRNA Plasmid (m): sc-142930-SH, DDX30 shRNA (h) Lentiviral Particles: sc-78188-V and DDX30 shRNA (m) Lentiviral Particles: sc-142930-V.

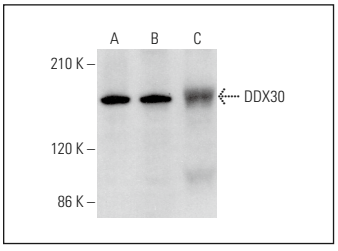
Molecular Weight of DDX30: 134 kDa.

Positive Controls: DDX30 (m): 293T Lysate: sc-119718, AN3 CA cell lysate: sc-24662 or HeLa whole cell lysate: sc-2200.

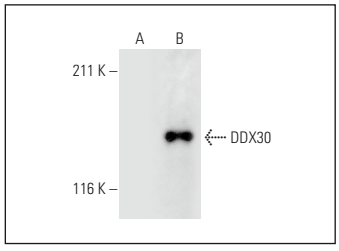
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (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



DDX30 (D-9): sc-390663. Western blot analysis of DDX30 expression in AN3 CA (**A**), HeLa (**B**) and c4 (**C**) whole cell lysates.



DDX30 (D-9): sc-390663. Western blot analysis of DDX30 expression in non-transfected: sc-117752 (**A**) and mouse DDX30 transfected: sc-119718 (**B**) 293T 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.

RESEARCH USE

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