

DDX17 (C-9): sc-271112



The Power to Question

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. DDX17 (DEAD box protein 17), also designated p72, is highly homologous to DDX5 (p68). DDX17 and DDX5 have been implicated in growth regulation by acting as transcriptional co-regulators for several transcription factors, including ER α , p53, MyoD and Runx2. Impairment of DDX17 may affect early brain development and can lead to Down syndrome. Alternatively, upregulation of DDX17 and DDX5 directly contributes to colon cancer, suggesting that DDX17 may be a useful therapeutic target to combat colon cancer.

REFERENCES

- Lamm, G.M., et al. 1996. p72: a human nuclear DEAD box protein highly related to p68. *Nucleic Acids Res.* 24: 3739-3747.
- Uhlmann-Schiffler, H., et al. 2002. The mRNA of DEAD box protein p72 is alternatively translated into an 82-kDa RNA helicase. *J. Biol. Chem.* 277: 1066-1075.

CHROMOSOMAL LOCATION

Genetic locus: DDX17 (human) mapping to 22q13.1; Ddx17 (mouse) mapping to 15 E1.

SOURCE

DDX17 (C-9) is a mouse monoclonal antibody raised against amino acids 485-641 mapping near the C-terminus of DDX17 of human origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

DDX17 (C-9) is recommended for detection of DDX17 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DDX17 siRNA (h): sc-77106, DDX17 siRNA (m): sc-142922, DDX17 shRNA Plasmid (h): sc-77106-SH, DDX17 shRNA Plasmid (m): sc-142922-SH, DDX17 shRNA (h) Lentiviral Particles: sc-77106-V and DDX17 shRNA (m) Lentiviral Particles: sc-142922-V.

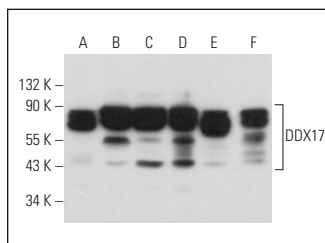
Molecular Weight of DDX17 isoforms: 72/82 kDa.

Positive Controls: C6 whole cell lysate: sc-364373, MCF7 whole cell lysate: sc-2206 or K-562 whole cell lysate: sc-2203.

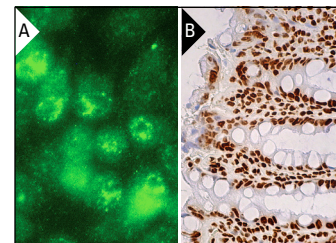
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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 A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



DDX17 (C-9): sc-271112. Western blot analysis of DDX17 expression in C6 (A), MCF7 (B), K-562 (C), A-431 (D), HEK293T (E) and HeLa (F) whole cell lysates.



DDX17 (C-9): sc-271112. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing nuclear staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Garibaldi, F., et al. 2016. Mutant p53 inhibits miRNA biogenesis by interfering with the microprocessor complex. *Oncogene* 35: 3760-3770.
- Li, K., et al. 2017. DDX17 nucleocytoplasmic shuttling promotes acquired gefitinib resistance in non-small cell lung cancer cells via activation of β -catenin. *Cancer Lett.* 400: 194-202
- Sithole, N., et al. 2018. DDX17 specifically, and independently of DDX5, controls use of the HIV A4/5 splice acceptor cluster and is essential for efficient replication of HIV. *J. Mol. Biol.* 430: 3111-3128.
- Pisani, F., et al. 2021. Regulation of aquaporin-4 expression in the central nervous system investigated using M23-AQP4 null mouse. *Glia* 69: 2235-2251.
- Fortuna, T.R., et al. 2021. DDX17 is involved in DNA damage repair and modifies FUS toxicity in an RGG-domain dependent manner. *Acta Neuropathol.* 142: 515-536.

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.