

DDX17 (H-7): sc-398168

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, up-regulation of DDX17 and DDX5 directly contributes to colon cancer, suggesting that DDX17 may be a useful therapeutic target to combat colon cancer.

CHROMOSOMAL LOCATION

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

SOURCE

DDX17 (H-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 143-155 within an internal region of DDX17 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DDX17 (H-7) is available conjugated to agarose (sc-398168 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398168 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398168 PE), fluorescein (sc-398168 FITC), Alexa Fluor® 488 (sc-398168 AF488), Alexa Fluor® 546 (sc-398168 AF546), Alexa Fluor® 594 (sc-398168 AF594) or Alexa Fluor® 647 (sc-398168 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398168 AF680) or Alexa Fluor® 790 (sc-398168 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398168 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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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.

APPLICATIONS

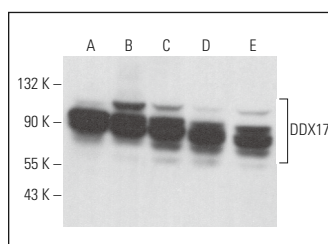
DDX17 (H-7) is recommended for detection of DDX17 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 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.

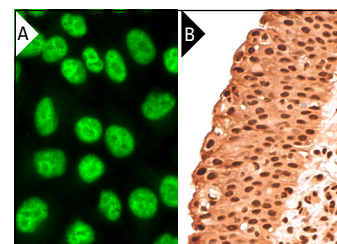
Molecular Weight of DDX17 isoforms: 72/82 kDa.

Positive Controls: NCI-H460 whole cell lysate: sc-364235, A549 cell lysate: sc-2413 or AMJ2-C8 whole cell lysate: sc-364366.

DATA



DDX17 (H-7): sc-398168. Western blot analysis of DDX17 expression in NCI-H460 (A), A549 (B), WI-38 (C), AMJ2-C8 (D) and WEHI-231 (E) whole cell lysates.



DDX17 (H-7): sc-398168. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing nuclear staining of urothelial cells (B).

SELECT PRODUCT CITATIONS

1. Suzuki, H., et al. 2018. The proline-arginine repeat protein linked to C9-ALS/FTD causes neuronal toxicity by inhibiting the DEAD-box RNA helicase-mediated ribosome biogenesis. *Cell Death Dis.* 9: 975.
2. Hirai, Y., et al. 2020. Differential roles of two DDX17 isoforms in the formation of membraneless organelles. *J. Biochem.* 168: 33-40.
3. Boleoslavka, B., et al. 2022. DDX17 helicase promotes resolution of R-loop-mediated transcription-replication conflicts in human cells. *Nucleic Acids Res.* 50: 12274-12290.
4. Zhao, G., et al. 2023. DDX17 induces epithelial-mesenchymal transition and metastasis through the miR-149-3p/CYBRD1 pathway in colorectal cancer. *Cell Death Dis.* 14: 1.
5. Feng, R., et al. 2025. PLUNC downregulates the expression of PD-L1 by inhibiting the interaction of DDX17/ β -catenin in nasopharyngeal carcinoma. *J. Pathol. Transl. Med.* 59: 68-83.

RESEARCH USE

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