

DDX15 (E-6): sc-271686



The Power to Question

BACKGROUND

DEAD-box proteins, characterized by the conserved motif Asp-Glu-Ala-Asp, are putative RNA helicases implicated in several cellular processes involving modifications of RNA secondary structure and ribosome/spliceosome assembly. Based on their distribution patterns, some members of this family may be involved in embryogenesis, spermatogenesis, and cellular growth and division. DDX15 (DEAH-box protein 15), also known as DHX15, DBP1 or HRH2, is a nuclear ATP-dependent RNA helicase that is involved in pre-mRNA splicing and is a member of the DEAH-box subfamily of DEAD-box proteins. Expressed throughout the body, DDX15 is a pre-mRNA processing factor that plays a role in spliceosome disassembly after the release of mature mRNA. When localized to the nucleoli, DDX15 is thought to interact with the La/SSB autoantigen, an RNA chaperone that functions in various intracellular processes. DDX15 is 795 amino acids in length and is the human ortholog of the *S. cerevisiae* protein Prp43.

CHROMOSOMAL LOCATION

Genetic locus: DHX15 (human) mapping to 4p15.2; Dhx15 (mouse) mapping to 5 C1.

SOURCE

DDX15 (E-6) is a mouse monoclonal antibody raised against amino acids 626-741 mapping near the C-terminus of DDX15 of human origin.

PRODUCT

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

DDX15 (E-6) is available conjugated to agarose (sc-271686 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271686 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271686 PE), fluorescein (sc-271686 FITC), Alexa Fluor® 488 (sc-271686 AF488), Alexa Fluor® 546 (sc-271686 AF546), Alexa Fluor® 594 (sc-271686 AF594) or Alexa Fluor® 647 (sc-271686 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271686 AF680) or Alexa Fluor® 790 (sc-271686 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

DDX15 (E-6) is recommended for detection of DDX15 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), 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 DDX15 siRNA (h): sc-62198, DDX15 siRNA (m): sc-62199, DDX15 shRNA Plasmid (h): sc-62198-SH, DDX15 shRNA Plasmid (m): sc-62199-SH, DDX15 shRNA (h) Lentiviral Particles: sc-62198-V and DDX15 shRNA (m) Lentiviral Particles: sc-62199-V.

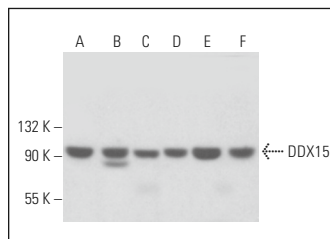
Molecular Weight of DDX15: 92 kDa.

Positive Controls: c4 whole cell lysate: sc-364186 or F9 cell lysate: sc-2245.

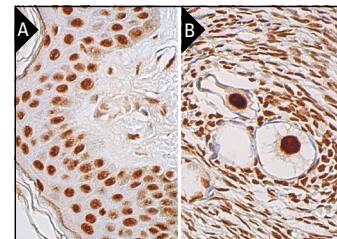
STORAGE

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

DATA



DDX15 (E-6): sc-271686. Western blot analysis of DDX15 expression in HEL 92.1.7 (A) and Jurkat (B) nuclear extracts and c4 (C), AMJ2-C8 (D), F9 (E) and BYDP (F) whole cell lysates.



DDX15 (E-6): sc-271686. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing nuclear staining of keratinocytes, fibroblasts, Langerhans cells and melanocytes (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human ovary tissue showing nuclear staining of follicle cells, ovarian stroma cells and oocytes (B).

SELECT PRODUCT CITATIONS

- Jing, Y., et al. 2018. DHX15 promotes prostate cancer progression by stimulating Siah2-mediated ubiquitination of androgen receptor. *Oncogene* 37: 638-650.
- Xie, C., et al. 2019. Overexpression and clinical relevance of the RNA helicase DHX15 in hepatocellular carcinoma. *Hum. Pathol.* 84: 213-220.
- Jin, L., et al. 2020. STRAP regulates alternative splicing fidelity during lineage commitment of mouse embryonic stem cells. *Nat. Commun.* 11: 5941.
- Zhao, M., et al. 2021. DHX15 inhibits autophagy and the proliferation of hepatoma cells. *Front. Med.* 7: 591736.
- Yano, K., et al. 2021. PRPF19 regulates p53-dependent cellular senescence by modulating alternative splicing of MDM4 mRNA. *J. Biol. Chem.* 297: 100882.
- Zheng, W., et al. 2023. CircRNF10-DHX15 interaction suppressed breast cancer progression by antagonizing DHX15-NFκB p65 positive feedback loop. *Cell. Mol. Biol. Lett.* 28: 34.
- Klímešová, K., et al. 2023. SART3 associates with a post-splicing complex. *J. Cell Sci.* 136: jcs260380.
- Wu, L., et al. 2024. Tumour microenvironment programming by an RNA-RNA-binding protein complex creates a druggable vulnerability in IDH-wild-type glioblastoma. *Nat. Cell Biol.* 26: 1003-1018.
- Karpel, J.E. 2024. *Caenorhabditis elegans* ddx-15 helicase fails to complement loss of Prp43p in *Saccharomyces cerevisiae*. *MicroPubl. Biol.* E-published.

RESEARCH USE

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

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