

p68 RNA Helicase (D-7): sc-365164

BACKGROUND

p68 RNA Helicase is a nuclear protein that exhibits RNA-dependent ATPase activity. Phosphorylation by protein kinase C inhibits p68 RNA Helicase activity. p68 RNA Helicase appears to play a role in organ differentiation during development. Furthermore, p68 RNA Helicase is expressed in early neural development and in various mesodermal tissues in a number of different chordate embryos. At the cellular level, the expression levels of p68 RNA Helicase increases in serum-induced quiescent cell lines. p68 RNA Helicase may function as a coactivator for estrogen receptor α . Additionally, p68 RNA Helicase associates with transcriptional coactivators CBP and p300. p68 RNA Helicase localizes to the nucleus under normal conditions. During late telophase, p68 RNA Helicase and fibrillarin colocalize to nascent nucleoli. p68 RNA Helicase may function as a heterodimer with p72 RNA Helicase.

REFERENCES

- Hirling, H., et al. 1989. RNA helicase activity associated with the human p68 protein. *Nature* 339: 562-564.
- Buelt, M.K., et al. 1994. Regulation of p68 RNA Helicase by calmodulin and protein kinase C. *J. Biol. Chem.* 269: 29367-29370.

CHROMOSOMAL LOCATION

Genetic locus: DDX5 (human) mapping to 17q23.3; Ddx5 (mouse) mapping to 11 E1.

SOURCE

p68 RNA Helicase (D-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 547-579 near the C-terminus of p68 RNA Helicase 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.

p68 RNA Helicase (D-7) is available conjugated to agarose (sc-365164 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365164 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365164 PE), fluorescein (sc-365164 FITC), Alexa Fluor[®] 488 (sc-365164 AF488), Alexa Fluor[®] 546 (sc-365164 AF546), Alexa Fluor[®] 594 (sc-365164 AF594) or Alexa Fluor[®] 647 (sc-365164 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-365164 AF680) or Alexa Fluor[®] 790 (sc-365164 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365164 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.

APPLICATIONS

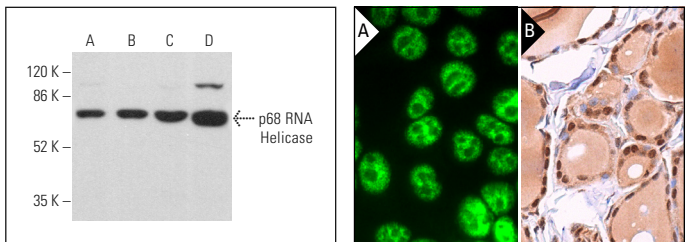
p68 RNA Helicase (D-7) is recommended for detection of p68 RNA Helicase of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 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). p68 RNA Helicase (D-7) is also recommended for detection of p68 RNA Helicase in additional species, including equine, canine and bovine.

Suitable for use as control antibody for p68 RNA Helicase siRNA (h): sc-37141, p68 RNA Helicase siRNA (m): sc-37142, p68 RNA Helicase shRNA Plasmid (h): sc-37141-SH, p68 RNA Helicase shRNA Plasmid (m): sc-37142-SH, p68 RNA Helicase shRNA (h) Lentiviral Particles: sc-37141-V and p68 RNA Helicase shRNA (m) Lentiviral Particles: sc-37142-V.

Molecular Weight of p68 RNA Helicase: 68 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, HeLa whole cell lysate: sc-2200 or SH-SY5Y cell lysate: sc-3812.

DATA



p68 RNA Helicase (D-7): sc-365164. Western blot analysis of p68 RNA Helicase expression in Hep G2 (A), SH-SY5Y (B), NIH/3T3 (C) and HeLa (D) whole cell lysates. Detection reagent used: m-IgG κ BP-HRP: sc-516102.

p68 RNA Helicase (D-7): sc-365164. Immunofluorescence staining of formalin-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human thyroid gland tissue showing nuclear staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- 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.
- Ma, L., et al. 2020. Decreased expression of DEAD-box helicase 5 inhibits esophageal squamous cell carcinomas by regulating endoplasmic reticulum stress and autophagy. *Biochem. Biophys. Res. Commun.* 533: 1449-1456.
- Wang, Y., et al. 2021. Distinct Ring1b complexes defined by DEAD-box helicases and EMT transcription factors synergistically enhance E-cadherin silencing in breast cancer. *Cell Death Dis.* 12: 202.
- Le, T.K., et al. 2022. DDX5 mRNA-targeting antisense oligonucleotide as a new promising therapeutic in combating castration-resistant prostate cancer. *Mol. Ther.* E-published.

RESEARCH USE

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