68 RNA Helicase (h2): 293T Lysate: sc-175254



The Power to Questio

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 increase 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 co-localize to nascent nucleoli. p68 RNA Helicase may function as a heterodimer with p72 RNA Helicase.

REFERENCES

- Hirling, H., Scheffner, M., Restle, T. and Stahl, H. 1989. RNA helicase activity associated with the human p68 protein. Nature 339: 562-564.
- Buelt, M.K., Glidden, B.J. and Storm, D.R. 1994. Regulation of p68 RNA Helicase by calmodulin and protein kinase C. J. Biol. Chem. 269: 29367-29370.
- 3. Stevenson, R.J., Hamilton, S.J., MacCallum, D.E., Hall, P.A. and Fuller-Pace, F.V. 1998. Expression of the "DEAD box" RNA Helicase p68 is developmentally and growth regulated and correlates with organ differentiation/maturation in the fetus. J. Pathol. 184: 351-359.
- Endoh, H., Maruyama, K., Masuhiro, Y., Kobayashi, Y., Goto, M., Tai, H., Yanagisawa, J., Metzger, D., Hashimoto, S. and Kato, S. 1999. Purification and identification of p68 RNA Helicase acting as a transcriptional coactivator specific for the activation function 1 of human estrogen receptor α. Mol. Cell. Biol. 19: 5363-5372.
- Seufert, D.W., Kos, R., Erickson, C.A. and Swalla, B.J. 2000. p68, a DEAD box RNA helicase, is expressed in chordate embryo neural and mesodermal tissues. J. Exp. Zool. 288: 193-204.
- Nicol, S.M., Causevic, M., Prescott, A.R. and Fuller-Pace, F.V. 2000. The nuclear DEAD box RNA Helicase p68 interacts with the nucleolar protein fibrillarin and colocalizes specifically in nascent nucleoli during telophase. Exp. Cell Res. 257: 272-280.
- 7. Rossow, K.L., and Janknecht, R. 2003. Synergism between p68 RNA helicase and the transcriptional coactivators CBP and p300. Oncogene 22:151-156.
- 8. Ogilvie, V.C., Wilson, B.J., Nicol, S.M., Morrice, N.A., Saunders, L.R., Barber, G.N., and Fuller-Pace, F.V. 2003. The highly related DEAD box RNA helicases p68 and p72 exist as heterodimers in cells. Nucleic Acids Res 31:1470-1480.

CHROMOSOMAL LOCATION

Genetic locus: DDX5 (human) mapping to 17q21.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PRODUCT

p68 RNA Helicase (h2): 293T Lysate represents a lysate of human p68 RNA Helicase transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

p68 RNA Helicase (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive p68 RNA Helicase antibodies. Recommended use: $10\text{-}20~\mu\text{l}$ per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Furope +00800 4573 8000 49 6221 4503 0 www.scbt.com