

hnRNP U (C-15): sc-13663

BACKGROUND

RNA polymerase II transcripts are complexed with hnRNP (heterogeneous nuclear ribonucleoprotein) proteins, which are involved in several aspects of hnRNA maturation and transport. The hnRNP particle U (also designated SAF-A, for scaffold attachment factor, and SP120) is an abundant nucleoplasmic phosphoprotein and the largest of the major hnRNP proteins. hnRNP U is specifically involved in pre-mRNA processing and is directly bound to both RNA and DNA. Specifically, hnRNP U has a high affinity to the SAR (scaffold attachment region) of DNA. hnRNP U also functions as an RNA polymerase elongation inhibitor by inhibiting TFIH-mediated phosphorylation of the carboxy-terminal domain of Pol II. Identical to GRIP120, hnRNP U also associates with glucocorticoid receptors to inhibit glucocorticoid induction.

REFERENCES

- Kiledjian, M. and Dreyfuss, G. 1992. Primary structure and binding activity of the hnRNP U protein: binding RNA through RGG box. *EMBO J.* 11: 2655-2664.
- Fackelmayer, F.O. and Richter, A. 1994. hnRNP-U/SAF-A is encoded by two differentially polyadenylated mRNAs in human cells. *Biochim. Biophys. Acta* 1217: 232-234.
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- Gupta, A.K., Drazba, J.A. and Banerjee, A.K. 1998. Specific interaction of heterogeneous nuclear ribonucleoprotein particle U with the leader RNA sequence of vesicular stomatitis virus. *J. Virol.* 72: 8532-8540.

CHROMOSOMAL LOCATION

Genetic locus: HNRPU (human) mapping to 1q44; Hnrpu (mouse) mapping to 1 H4.

SOURCE

hnRNP U (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of hnRNP U of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-13663 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

hnRNP U (C-15) is recommended for detection of hnRNP U of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

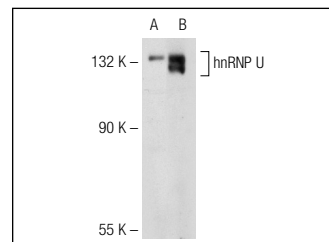
hnRNP U (C-15) is also recommended for detection of hnRNP U in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for hnRNP U siRNA (h): sc-38298, hnRNP U siRNA (m): sc-38299, hnRNP U shRNA Plasmid (h): sc-38298-SH, hnRNP U shRNA Plasmid (m): sc-38299-SH, hnRNP U shRNA (h) Lentiviral Particles: sc-38298-V and hnRNP U shRNA (m) Lentiviral Particles: sc-38299-V.

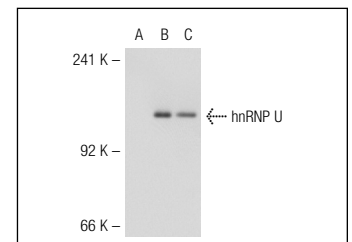
Molecular Weight of hnRNP U: 142 kDa.

Positive Controls: K-562 nuclear extract: sc-2130, hnRNP U (h): 293T Lysate: sc-113957 or hnRNP U (h2): 293T Lysate: sc-170307.

DATA



hnRNP U (C-15): sc-13663. Western blot analysis of hnRNP U expression in non-transfected: sc-117752 (A) and human hnRNP U transfected: sc-170307 (B) 293T whole cell lysates.



hnRNP U (C-15): sc-13663. Western blot analysis of hnRNP U expression in non-transfected: sc-117752 (A) and human hnRNP U transfected: sc-113957 (B) 293T whole cell lysates and K-562 nuclear extract (C).

SELECT PRODUCT CITATIONS

- Zielinski, J., Kilk, K., Peritz, T., Kannanayakal, T., Miyashiro, K.Y., Eiríksdóttir, E., Jochems, J., Langel, U. and Eberwine, J. 2006. *In vivo* identification of ribonucleoprotein-RNA interactions. *Proc. Natl. Acad. Sci. USA* 103: 1557-1562.
- Irelan, J.T., Murphy, T.J., DeJesus, P.D., Teo, H., Xu, D., Gomez-Ferrera, M.A., Zhou, Y., Miraglia, L.J., Rines, D.R., Verma, I.M., Sharp, D.J., Tergaonkar, V. and Chanda, S.K. 2007. A role for IκB kinase 2 in bipolar spindle assembly. *Proc. Natl. Acad. Sci. USA* 104: 16940-16945.

RESEARCH USE

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



Try **hnRNP U (3G6): sc-32315** or **hnRNP U (D-2): sc-365852**, our highly recommended monoclonal alternatives to hnRNP U (C-15). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **hnRNP U (3G6): sc-32315**.