



hnRNP U (h): 293T Lysate: sc-113957

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 SP120 and SAF-A for scaffold attachment factor) 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 TFIIF-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

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3. Gohring, F., et al. 1997. The scaffold/matrix attachment region binding protein hnRNP U (SAF-A) is directly bound to chromosomal DNA *in vivo*; a chemical cross linking study. *Biochemistry* 36: 8276-8283.
4. Eggert, M., et al. 1997. The glucocorticoid receptor is associated with the RNA-binding nuclear matrix protein hnRNP U. *J. Biol. Chem.* 272: 28471-28478.
5. Gupta, A.K., et al. 1998. Specific interaction of heterogeneous nuclear ribonucleoprotein particle U with the leader RNA sequence of vesicular stomatitis virus. *J. Virol.* 72: 8532-8540.
6. Mattern, K.A., et al. 1999. Spatial organization of four hnRNP proteins in relation to sites of transcription, to nuclear speckles, and to each other in interphase nuclei and nuclear matrices of HeLa cells. *Exp. Cell Res.* 246: 461-470.
7. Kim, M.K., et al. 1999. hnRNP U inhibits carboxy-terminal domain phosphorylation by TFIIF and represses RNA polymerase II elongation. *Mol. Cell. Biol.* 19: 6833-6844.
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CHROMOSOMAL LOCATION

Genetic locus: HNRPU (human) mapping to 1q44.

PRODUCT

hnRNP U (h): 293T Lysate represents a lysate of human hnRNP U transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

hnRNP U (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive hnRNP U antibodies. Recommended use: 10-20 µl per lane.

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

RESEARCH USE

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

PROTOCOLS

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