

# hnRNP K (h2): 293T Lysate: sc-170972

## BACKGROUND

Heterogeneous nuclear ribonucleoproteins (hnRNPs) constitute a set of polypeptides that contribute to mRNA transcription and pre-mRNA processing as well as mature mRNA transport to the cytoplasm and translation. They also bind heterogeneous nuclear RNA (hnRNA), which are the transcripts produced by RNA Polymerase II. There are approximately 20 known hnRNP proteins and their complexes are the major constituents of the spliceosome. The majority of hnRNP protein are localized to the nucleus, however some shuttle between the nucleus and the cytoplasm, such as hnRNP K. hnRNP K recruits a variety of molecular partners through two K homologous (KH) domains, which are required for protein-protein interactions. hnRNP K also contains several potential phosphorylation sites, including Ser 302, the major site of PKC  $\delta$  phosphorylation, which are thought to regulate various cellular functions, including sequence-specific DNA binding, transcription, RNA binding and nucleocytoplasmic shuttling.

## REFERENCES

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2. Badolato, J., et al. 1995. Identification and characterisation of a novel human RNA-binding protein. *Gene* 166: 323-337.
3. Siomi, H., et al. 1995. A nuclear localization domain in the hnRNP A1 protein. *J. Cell Biol.* 129: 551-560.
4. Schullery, D.S., et al. 1999. Regulated interaction of protein kinase C $\gamma$  with the heterogeneous nuclear ribonucleoprotein K protein. *J. Biol. Chem.* 274: 15101-15109.
5. Kim, J.H., et al. 2000. Protein-protein interaction among hnRNPs shuttling between nucleus and cytoplasm. *J. Mol. Biol.* 298: 395-405.
6. Melcak, I., et al. 2000. Nuclear pre-mRNA compartmentalization: trafficking of released transcripts to splicing factor reservoirs. *Mol. Biol. Cell* 11: 497-510.
7. Mandal, M., et al. 2001. Growth factors regulate heterogeneous nuclear ribonucleoprotein K expression and function. *J. Biol. Chem.* 276: 9699-9704.

## CHROMOSOMAL LOCATION

Genetic locus: HNRNPK (human) mapping to 9q21.32.

## PRODUCT

hnRNP K (h2): 293T Lysate represents a lysate of human hnRNP K transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

hnRNP K (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive hnRNP K antibodies. Recommended use: 10-20  $\mu$ l per lane.

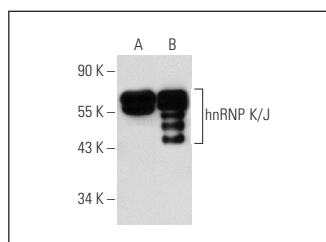
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

hnRNP K/J (3C2): sc-32307 is recommended as a positive control antibody for Western Blot analysis of enhanced human hnRNP K expression in hnRNP K transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



hnRNP K/J (3C2): sc-32307. Western blot analysis of hnRNP K expression in non-transfected: sc-117752 (A) and human hnRNP K transfected: sc-170972 (B) 293T whole cell lysates.

## RESEARCH USE

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