

hnRNP K (F45 P9 C7): sc-53620

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 proteins 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 δ phosphorylation, which are thought to regulate various cellular functions, including sequence-specific DNA binding, transcription, RNA binding and nucleocytoplasmic shuttling.

REFERENCES

1. Siomi, H., et al. 1993. The pre-mRNA binding K protein contains a novel evolutionarily conserved motif. *Nucleic Acids Res.* 21: 1193-1198.
2. Badolato, J., et al. 1995. Identification and characterisation of a novel human RNA-binding protein. *Gene* 166: 323-337.

CHROMOSOMAL LOCATION

Genetic locus: HNRNPK (human) mapping to 9q21.32; Hnrnpk (mouse) mapping to 13 B1.

SOURCE

hnRNP K (F45 P9 C7) is a mouse monoclonal antibody raised against the C-terminus of hnRNP K of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

hnRNP K (F45 P9 C7) is recommended for detection of hnRNP K 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) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for hnRNP K siRNA (h): sc-38282, hnRNP K siRNA (m): sc-38283, hnRNP K shRNA Plasmid (h): sc-38282-SH, hnRNP K shRNA Plasmid (m): sc-38283-SH, hnRNP K shRNA (h) Lentiviral Particles: sc-38282-V and hnRNP K shRNA (m) Lentiviral Particles: sc-38283-V.

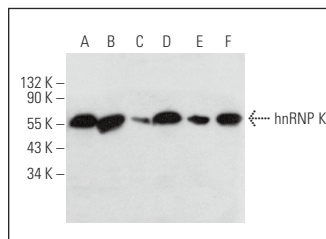
Molecular Weight of hnRNP K: 65 kDa.

Positive Controls: THP-1 cell lysate: sc-2238, MDA-MB-231 cell lysate: sc-2232 or LADMAC whole cell lysate: sc-364189.

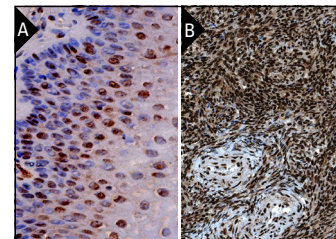
STORAGE

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

DATA



hnRNP K (F45 P9 C7): sc-53620. Western blot analysis of hnRNP K expression in THP-1 (A), MDA-MB-231 (B), LADMAC (C), RAW 264.7 (D), L8 (E) and RPE-J (F) whole cell lysates.



hnRNP K (F45 P9 C7): sc-53620. Immunoperoxidase staining of formalin fixed, paraffin-embedded human vagina tissue showing nuclear staining of squamous epithelial cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human ovary tissue showing nuclear staining of follicle and stromal cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

SELECT PRODUCT CITATIONS

1. Aminin, D.L., et al. 2009. Immunomodulatory effects of holothurian triterpene glycosides on mammalian splenocytes determined by mass spectrometric proteome analysis. *J. Proteomics* 72: 886-906.
2. Chaudhury, A., et al. 2010. TGF- β -mediated phosphorylation of hnRNP E1 induces EMT via transcript-selective translational induction of Dab2 and ILEI. *Nat. Cell Biol.* 12: 286-293.
3. Kumar P, P., et al. 2014. Coordinated control of senescence by lncRNA and a novel T-box3 co-repressor complex. *Elife* 3: e02805.
4. Zhang, D., et al. 2017. Echinacoside alleviates UVB irradiation-mediated skin damage via inhibition of oxidative stress, DNA damage, and apoptosis. *Oxid. Med. Cell. Longev.* 2017: 6851464.
5. Zheng, F., et al. 2021. The HIF-1 α antisense long non-coding RNA drives a positive feedback loop of HIF-1 α mediated transactivation and glycolysis. *Nat. Commun.* 12: 1341.
6. Tang, X., et al. 2025. Gut microbe-derived betulonic acid alleviates sepsis-induced acute liver injury by inhibiting macrophage NLRP3 inflammasome in mice. *mBio* 16: e0302024.

RESEARCH USE

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



See **hnRNP K (D-6): sc-28380** for hnRNP K antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.