

p-hnRNP K (Ser 302): sc-18361

BACKGROUND

Heterogeneous nuclear ribonucleoproteins (hnRNPs) constitute a set of polypeptides that contribute to mRNA transcription, pre-mRNA processing and 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 components 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., Matunis, M.J., Michael, W.M. and Dreyfuss, G. 1993. The pre-mRNA binding K protein contains a novel evolutionarily conserved motif. *Nucleic Acids Res.* 21: 1193-1198.
2. Badolato, J., Gardiner, E., Morrison, N. and Eisman, J. 1995. Identification and characterisation of a novel human RNA-binding protein. *Gene* 166: 323-337.
3. Siomi, H. and Dreyfuss, G. 1995. A nuclear localization domain in the hnRNP A1 protein. *J. Cell Biol.* 129: 551-560.
4. Schullery, D.S., Ostrowski, J., Denisenko, O.N., Stempka, L., Shnyreva, M., Suzuki, H., Gschwendt, M. and Bomsztyk, K. 1999. Regulated interaction of protein kinase C δ with the heterogeneous nuclear ribonucleoprotein K protein. *J. Biol. Chem.* 274: 15101-15109.

CHROMOSOMAL LOCATION

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

SOURCE

p-hnRNP K (Ser 302) is available as either goat (sc-18361) or rabbit (sc-18361-R) polyclonal affinity purified antibody raised against a short amino acid sequence containing Ser 302 phosphorylated hnRNP K of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-18361 P, (100 μ g 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

p-hnRNP K (Ser 302) is recommended for detection of Ser 302 phosphorylated hnRNP K of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

p-hnRNP K (Ser 302) is also recommended for detection of correspondingly phosphorylated hnRNP K in additional species, including equine, canine, bovine, porcine and avian.

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 p-hnRNP K: 65 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: for goat primary antibody (sc-18361): use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), for rabbit primary antibody (sc-18361-R): use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 2) Immunofluorescence: for goat primary antibody (sc-18361): use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941, for rabbit primary antibody (sc-18361-R): use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Emerald, B.S., Chen, Y., Zhu, T., Zhu, Z., Lee, K.O., Gluckman, P.D. and Lobie, P.E. 2007. α CP1 mediates stabilization of hTERT mRNA by auto-crine human growth hormone. *J. Biol. Chem.* 282: 680-690.

RESEARCH USE

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


 MONOS
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Try **p-hnRNP K (H-5): sc-365998**, our highly recommended monoclonal alternative to p-hnRNP K (Ser 302).