Revision 1

#4675 Store at -20C

hnRNP K (R332) Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IF-IC, FC-FP	H M R Mk	Endogenous	58-62	Rabbit	#P61978	3190

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunofluorescence (Immunocytochemistry)	1:100
Flow Cytometry (Fixed/Permeabilized)	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

hnRNP K (R332) Antibody detects endogenous level of total hnRNP K protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg332 of human hnRNP K protein. Antibodies were purified by protein A and peptide affinity chromatography.

Background

Heterogeneous nuclear ribonucleoprotein K (hnRNP K) belongs to a family of RNA binding multiprotein complexes (hnRNP proteins) that facilitate pre-mRNA processing and transport of mRNA from the nucleus to cytoplasm (1-3). hnRNP K contains three unique structural motifs termed KH domains that bind poly(C) DNA and RNA sequences (4,5). Intricate architecture enables hnRNP K to facilitate mRNA biosynthesis (6), transcriptional regulation (7), and signal transduction. Research studies have shown that cytoplasmic hnRNP K expression is increased in oral squamous cell carcinoma and pancreatic cancer, and may be a potential prognostic factor (8,9). hnRNP K coordinates with p53 to regulate its target gene transcription in response to DNA damage. Proteasome degradation of hnRNP K is mediated by E3 ligase MDM2 (10). The interaction between hnRNP K and c-Src leads to hnRNP K phosphorylation, which allows for hnRNP K activation of silenced mRNA translation (11).

Background References

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5. Choi, H.S. et al. (2009) *Biochem Biophys Res Commun* 380, 431-6.
6. Bustelo, X.R. et al. (1995) *Mol Cell Biol* 15, 1324-32.
7. Michelotti, E.F. et al. (1996) *Mol Cell Biol* 16, 2350-60.
8. Zhou, R. et al. (2010) *Int J Cancer* 126, 395-404.
9. Matta, A. et al. (2009) *Int J Cancer* 125, 1398-406.
10. Moumen, A. et al. (2005) *Cell* 123, 1065-78.
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Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry)
FC-FP: Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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