

#5380 Store at -20C

hnRNP A1 (R196) 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, IP, IF-IC	H M R Mk	Endogenous	34, 40	Rabbit	#P09651	3178

Product Usage Information

Application

Western Blotting
Immunoprecipitation
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:50
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 A1 (R196) Antibody detects both isoforms of endogenous hnRNP A1 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg196 of human hnRNP A1 protein. Antibodies were purified by protein A and peptide affinity chromatography.

Background

Heterogeneous nuclear ribonucleoprotein A1 (hnRNP A1) is a member of the hnRNP A/B family of related RNA binding proteins that bind pre-mRNA and are involved in the processing, metabolism, and transport of nuclear pre-mRNA transcripts (1). hnRNP A1 regulates the alternative splicing of c-Src and c-H-Ras (2,3) and modifies initiation of translation of the fibroblast growth factor 2 mRNA (4). hnRNP A1 expression level is elevated in many cancers; knockdown of hnRNP A1 leads to apoptosis in various cancer cells (5). Although predominantly nuclear, hnRNP A1 is continually transported from the nucleus to the cytoplasm where it disassociates from mRNA and is rapidly re-imported into the nucleus (6,7). hnRNP A1 binds to cis-acting repressive sequences (CRS) of HIV-1 to influence HIV-1 production (8,9). HIV-1 enhances hnRNP A1 expression and promotes the relocalization of hnRNP A1 to the cytoplasm (10).

Background References

1. Myer, V.E. and Steitz, J.A. (1995) *RNA* 1, 171-82.
2. Rooke, N. et al. (2003) *Mol Cell Biol* 23, 1874-84.
3. Guil, S. et al. (2003) *Mol Cell Biol* 23, 2927-41.
4. Bonnal, S. et al. (2005) *J Biol Chem* 280, 4144-53.
5. Patry, C. et al. (2003) *Cancer Res* 63, 7679-88.
6. Piñol-Roma, S. and Dreyfuss, G. (1992) *Nature* 355, 730-2.
7. Siomi, M.C. et al. (1997) *J Cell Biol* 138, 1181-92.
8. Black, A.C. et al. (1996) *Virus Genes* 12, 275-85.
9. Hadian, K. et al. (2009) *J Biol Chem* 284, 33384-91.
10. Monette, A. et al. (2009) *J Biol Chem* 284, 31350-62.

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 **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)

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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