Revision 5

#8443 Store at -20C

hnRNP A1 (D21H11) Rabbit mAb

Cell Signaling TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, IF-IC, FC-FP	H M R Mk	Endogenous	34, 40	Rabbit IgG	#P09651	3178

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100
Immunofluorescence (Immunocytochemistry)	1:200 - 1:800
Flow Cytometry (Fixed/Permeabilized)	1:100 - 1:400

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

hnRNP A1 (D21H11) Rabbit mAb recognizes endogenous levels of total hnRNP A1 protein. This antibody does not cross react with other hnRNP family member proteins.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly209 of human hnRNP A1 protein.

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) **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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