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HNRNPA1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16993b

Product Information

Application	WB, E
Primary Accession	P09651
Other Accession	NP_002127.1, NP_112420.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB36727
Calculated MW	38747
Antigen Region	266-294

Additional Information

Gene ID	3178
Other Names	Heterogeneous nuclear ribonucleoprotein A1, hnRNP A1, Helix-destabilizing protein, Single-strand RNA-binding protein, hnRNP core protein A1, Heterogeneous nuclear ribonucleoprotein A1, N-terminally processed, HNRNPA1, HNRPA1
Target/Specificity	This HNRNPA1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 266-294 amino acids from the C-terminal region of human HNRNPA1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	HNRNPA1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HNRNPA1
Synonyms	HNRPA1

Function	Involved in the packaging of pre-mRNA into hnRNP particles, transport of poly(A) mRNA from the nucleus to the cytoplasm and modulation of splice site selection (PubMed:17371836). Plays a role in the splicing of pyruvate kinase PKM by binding repressively to sequences flanking PKM exon 9, inhibiting exon 9 inclusion and resulting in exon 10 inclusion and production of the PKM M2 isoform (PubMed:20010808). Binds to the IRES and thereby inhibits the translation of the apoptosis protease activating factor APAF1 (PubMed:31498791). May bind to specific miRNA hairpins (PubMed:28431233).
Cellular Location	Nucleus. Cytoplasm Note=Localized in cytoplasmic mRNP granules containing untranslated mRNAs. Shuttles continuously between the nucleus and the cytoplasm along with mRNA. Component of ribonucleosomes (PubMed:17289661) Nucleus. Note=(Microbial infection) SARS coronavirus-2/SARS-CoV-2 ORF6 protein increases accumulation to the nucleus.

Background

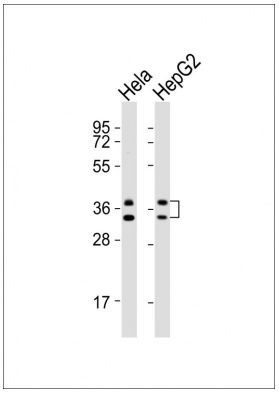
This gene belongs to the A/B subfamily of ubiquitously expressed heterogeneous nuclear ribonucleoproteins (hnRNPs). The hnRNPs are RNA binding proteins and they complex with heterogeneous nuclear RNA (hnRNA). These proteins are associated with pre-mRNAs in the nucleus and appear to influence pre-mRNA processing and other aspects of mRNA metabolism and transport. While all of the hnRNPs are present in the nucleus, some seem to shuttle between the nucleus and the cytoplasm. The hnRNP proteins have distinct nucleic acid binding properties. The protein encoded by this gene has two repeats of quasi-RRM domains that bind to RNAs. It is one of the most abundant core proteins of hnRNP complexes and it is localized to the nucleoplasm. This protein, along with other hnRNP proteins, is exported from the nucleus, probably bound to mRNA, and is immediately re-imported. Its M9 domain acts as both a nuclear localization and nuclear export signal. The encoded protein is involved in the packaging of pre-mRNA into hnRNP particles, transport of poly A+ mRNA from the nucleus to the cytoplasm, and may modulate splice site selection. It is also thought have a primary role in the formation of specific myometrial protein species in parturition. Multiple alternatively spliced transcript variants have been found for this gene but only two transcripts are fully described. These variants have multiple alternative transcription initiation sites and multiple polyA sites. [provided by RefSeq].

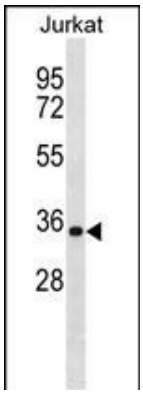
References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Michlewski, G., et al. Nat. Struct. Mol. Biol. 17(8):1011-1018(2010)
Clower, C.V., et al. Proc. Natl. Acad. Sci. U.S.A. 107(5):1894-1899(2010)
David, C.J., et al. Nature 463(7279):364-368(2010)
Fisette, J.F., et al. RNA 16(1):228-238(2010)

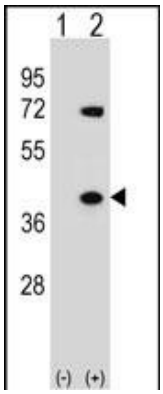
Images

All lanes : Anti-HNRNPA1 Antibody (C-term) at 1:1000 dilution Lane 1: Hela whole cell lysates Lane 2: HepG2 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 39 kDa Blocking/Dilution buffer: 5% NFDM/TBST.





HNRNPA1 Antibody (C-term) (Cat. #AP16993b) western blot analysis in Jurkat cell line lysates (35ug/lane).This demonstrates the HNRNPA1 antibody detected the HNRNPA1 protein (arrow).



Western blot analysis of HNRNPA1 (arrow) using rabbit polyclonal HNRNPA1 Antibody (C-term) (Cat. #AP16993b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the HNRNPA1 gene.