

KD-Validated Anti-Poly(A) Binding Protein Nuclear 1 Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI1603**Specification****KD-Validated Anti-Poly(A) Binding Protein Nuclear 1 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	Q86U42
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 33 kDa , observed , 49 kDa KDa
Gene Name	PABPN1
Aliases	PABPN1; Poly(A) Binding Protein Nuclear 1; PAB2 ; PABP2; Polyadenylate-Binding Protein 2; PABP-2; PABII; OPMD; Polyadenylate-Binding Nuclear Protein 1; Poly(A)-Binding Protein, Nuclear 1; Poly(A) Binding Protein, Nuclear 1; Nuclear Poly(A)-Binding Protein 1; Poly(A) Binding Protein II; Poly(A)-Binding Protein II; Poly(A) Binding Protein 2; Poly(A)-Binding Protein 2
Immunogen	A synthesized peptide derived from human PABPN1

KD-Validated Anti-Poly(A) Binding Protein Nuclear 1 Rabbit Monoclonal Antibody - Additional InformationGene ID **8106****Other Names**

Polyadenylate-binding protein 2, PABP-2, Poly(A)-binding protein 2, Nuclear poly(A)-binding protein 1, Poly(A)-binding protein II, PABII, Polyadenylate-binding nuclear protein 1, PABPN1 (http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=8565 target="_blank">HGNC:8565), PAB2, PABP2

KD-Validated Anti-Poly(A) Binding Protein Nuclear 1 Rabbit Monoclonal Antibody - Protein Information**Name** PABPN1 ([HGNC:8565](#))**Synonyms** PAB2, PABP2**Function**

Involved in the 3'-end formation of mRNA precursors (pre- mRNA) by the addition of a poly(A) tail of 200-250 nt to the upstream cleavage product (By similarity). Stimulates poly(A) polymerase (PAPOLA) conferring processivity on the poly(A) tail elongation reaction and also controls the

poly(A) tail length (By similarity). Increases the affinity of poly(A) polymerase for RNA (By similarity). Is also present at various stages of mRNA metabolism including nucleocytoplasmic trafficking and nonsense-mediated decay (NMD) of mRNA. Cooperates with SKIP to synergistically activate E-box-mediated transcription through MYOD1 and may regulate the expression of muscle-specific genes (PubMed:11371506). Binds to poly(A) and to poly(G) with high affinity (By similarity). May protect the poly(A) tail from degradation (By similarity). Subunit of the trimeric poly(A) tail exosome targeting (PAXT) complex, a complex that directs a subset of long and polyadenylated poly(A) RNAs for exosomal degradation. The RNA exosome is fundamental for the degradation of RNA in eukaryotic nuclei. Substrate targeting is facilitated by its cofactor MTREX, which links to RNA-binding protein adapters (PubMed:27871484).

Cellular Location

Nucleus. Cytoplasm. Nucleus speckle Note=Localized in cytoplasmic mRNP granules containing untranslated mRNAs. Shuttles between the nucleus and the cytoplasm but predominantly found in the nucleus (PubMed:10688363). Its nuclear import may involve the nucleocytoplasmic transport receptor transportin and a RAN-GTP- sensitive import mechanism (By similarity). Is exported to the cytoplasm by a carrier-mediated pathway that is independent of mRNA traffic. Colocalizes with SKIP and poly(A) RNA in nuclear speckles (By similarity). Intranuclear filamentous inclusions or 'aggregates' are detected in the myocytes of patients; these inclusions contain PABPN1, ubiquitin, subunits of the proteasome and poly(A) RNA {ECO:0000250|UniProtKB:Q28165, ECO:0000269|PubMed:10688363, ECO:0000269|PubMed:11001936, ECO:0000269|PubMed:11371506, ECO:0000269|PubMed:14663186, ECO:0000269|PubMed:17289661, ECO:0000269|PubMed:27209344}

Tissue Location

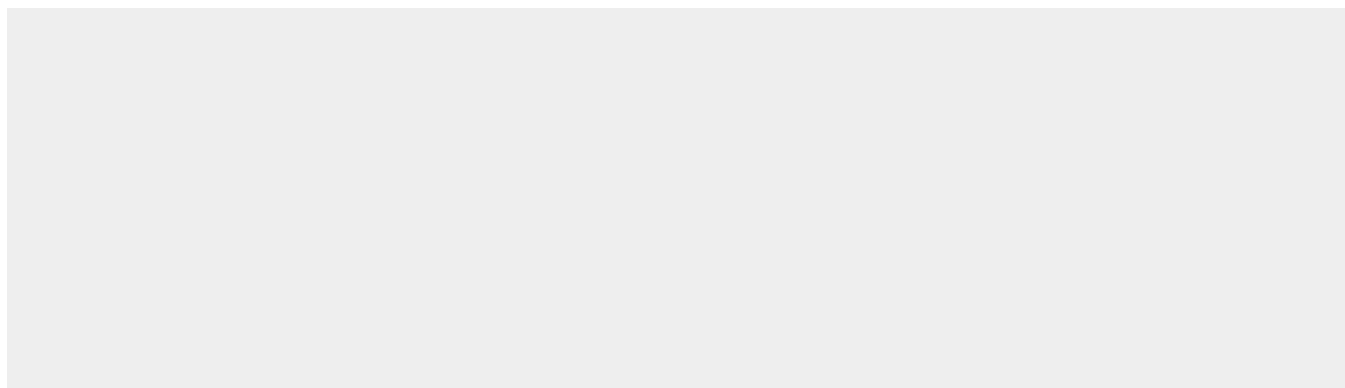
Ubiquitous.

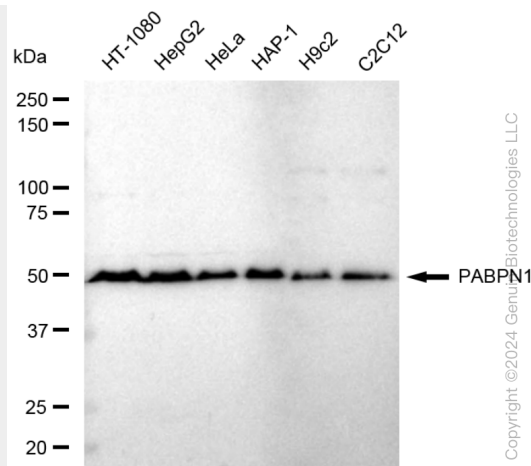
KD-Validated Anti-Poly(A) Binding Protein Nuclear 1 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

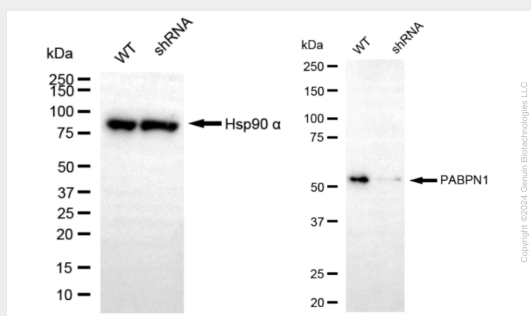
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KD-Validated Anti-Poly(A) Binding Protein Nuclear 1 Rabbit Monoclonal Antibody - Images

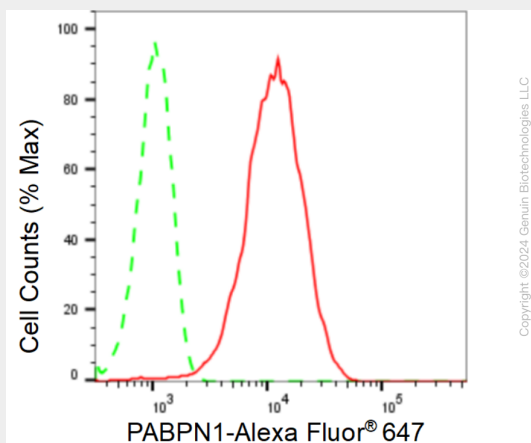




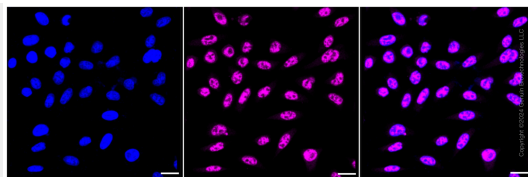
Western blotting analysis using anti-PABPN1 antibody (Cat#AGI1603). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-PABPN1 antibody (Cat#AGI1603, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-PABPN1 antibody (Cat#AGI1603). PABPN1 expression in wild type (WT) and PABPN1 shRNA knockdown (KD) HT-1080 cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-PABPN1 antibody (Cat#AGI1603, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of PABPN1 expression in HepG2 cells using PABPN1 antibody (Cat#AGI1603, 1:2,000). Green, isotype control; red, PABPN1.



Immunocytochemical staining of HeLa cells with anti-PABPN1 antibody (Cat#AGI1603, 1:1,000). Nuclei were stained blue with DAPI; PABPN1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar: 20 μ m.