

### **PABPN1** Antibody

Rabbit mAb Catalog # AP91231

## **Specification**

### **PABPN1 Antibody - Product Information**

Application WB, IHC, FC, ICC, IP

Primary Accession Q86U42
Clonality Monoclonal

**Other Names** 

Nuclear poly(A)-binding protein 1; PAB2; PABII; PABP2; PABPII; Pabpn1; poly(A) binding protein

nuclear 1;

Isotype Rabbit IgG
Host Rabbit
Calculated MW 32749 Da

# **PABPN1 Antibody - Additional Information**

Dilution WB~~1:1000

IHC~~1:100~500 FC~~1:10~50 ICC~~N/A IP~~N/A

Purification Affinity-chromatography

Immunogen A synthesized peptide derived from human

PABPN1

Description 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. Stimulates poly(A)

polymerase (PAPOLA) conferring

processivity on the poly(A) tail elongation reaction and controls also the poly(A) tail length. Increases the affinity of poly(A)

polymerase for RNA.

Storage Condition and Buffer Rabbit IgG in phosphate buffered saline,

pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid

freeze / thaw cycle.

#### **PABPN1** 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:<a href="http://www.uniprot.org/citations/11371506" target="\_blank">11371506</a>/a>). 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:<a href="http://www.uniprot.org/citations/27871484" target="blank">27871484</a>).

#### **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.

### **PABPN1 Antibody - Protocols**

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# PABPN1 Antibody - Images



