

PABPN1 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP16835b**Specification**

PABPN1 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [Q86U42](#)**PABPN1 Antibody (C-term) Blocking Peptide - Additional Information****Gene 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, PAB2, PABP2

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PABPN1 Antibody (C-term) Blocking Peptide - 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 controls also 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.

PABPN1 Antibody (C-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

PABPN1 Antibody (C-term) Blocking Peptide - Images**PABPN1 Antibody (C-term) Blocking Peptide - Background**

This gene encodes an abundant nuclear protein that binds with high affinity to nascent poly(A) tails. The protein is required for progressive and efficient polymerization of poly(A) tails on the 3' ends of eukaryotic genes and controls the size of the poly(A) tail to about 250 nt. At steady-state, this protein is localized in the nucleus whereas a different poly(A) binding protein is localized in the cytoplasm. An expansion of the trinucleotide (GCG) repeat from normal 6 to 8-13 at the 5' end of the coding region of this gene leads to autosomal dominant oculopharyngeal muscular dystrophy (OPMD) disease. Multiple splice variants have been described but their full-length nature is not known. One splice variant includes introns 1 and 6 but no protein is formed.

PABPN1 Antibody (C-term) Blocking Peptide - References

Hosgood, H.D. III, et al. Occup Environ Med 66(12):848-853(2009) Hurt, J.A., et al. J. Cell Biol. 185(2):265-277(2009) Kuo, H.C., et al. J. Neurol. Sci. 278 (1-2), 21-24 (2009) :Tavanez, J.P., et al. PLoS ONE 4 (7), E6418 (2009) :Maksimova, N.R., et al. Zh Nevrol Psikhiatr Im S S Korsakova 108(6):52-60(2008)