

Anti-PABPN1 Rabbit Monoclonal Antibody

Catalog # ABO13874

Specification

Anti-PABPN1 Rabbit Monoclonal Antibody - Product Information

Application Primary Accession Host Isotype Reactivity Clonality Format Description WB, IHC, IF, ICC, IP, FC <u>Q86U42</u> Rabbit Rabbit IgG Human, Mouse Monoclonal Liquid

Anti-PABPN1 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP, Flow Cytometry applications. This antibody reacts with Human, Mouse.

Anti-PABPN1 Rabbit Monoclonal Antibody - 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 1, PABI, Polyadenylate-binding nuclear protein 1, PABPN1 (HGNC:8565), PAB2, PABP2

Calculated MW 32749 MW KDa

Application Details WB 1:500-1:2000
IHC 1:50-1:200
ICC/IF 1:50-1:200
IP 1:50
FC 1:50

Subcellular Localization

Nucleus. Cytoplasm. Nucleus speckle. 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..

Tissue Specificity Ubiquitous.

Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.



Immunogen A synthesized peptide derived from human PABPN1

Purification Affinity-chromatography

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Anti-PABPN1 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:http://www.uniprot.org/citations/11371506

target="_blank">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.

Anti-PABPN1 Rabbit Monoclonal Antibody - Protocols

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



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

Anti-PABPN1 Rabbit Monoclonal Antibody - Images



Western blot analysis of PABPN1 expression in HeLa cell lysate.