

# PABPC1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP2920c

## Product Information

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<b>Application</b>	WB, IHC-P, E
<b>Primary Accession</b>	<a href="#">P11940</a>
<b>Other Accession</b>	<a href="#">Q6IP09</a> , <a href="#">P20965</a> , <a href="#">Q9EPH8</a> , <a href="#">P29341</a> , <a href="#">P61286</a>
<b>Reactivity</b>	Human, Mouse
<b>Predicted</b>	Bovine, Rat, Xenopus
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB20873
<b>Calculated MW</b>	70671
<b>Antigen Region</b>	250-279

## Additional Information

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<b>Gene ID</b>	26986
<b>Other Names</b>	Polyadenylate-binding protein 1, PABP-1, Poly(A)-binding protein 1, PABPC1, PAB1, PABP1, PABPC2
<b>Target/Specificity</b>	This PABPC1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 250-279 amino acids from the Central region of human PABPC1.
<b>Dilution</b>	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
<b>Format</b>	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
<b>Storage</b>	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.
<b>Precautions</b>	PABPC1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	PABPC1 ( <a href="#">HGNC:8554</a> )
<b>Function</b>	Binds the poly(A) tail of mRNA, including that of its own transcript, and regulates processes of mRNA metabolism such as pre-mRNA splicing and

mRNA stability (PubMed:[11051545](#), PubMed:[17212783](#), PubMed:[25480299](#)). Its function in translational initiation regulation can either be enhanced by PAIP1 or repressed by PAIP2 (PubMed:[11051545](#), PubMed:[20573744](#)). Can probably bind to cytoplasmic RNA sequences other than poly(A) in vivo. Binds to N6-methyladenosine (m6A)-containing mRNAs and contributes to MYC stability by binding to m6A-containing MYC mRNAs (PubMed:[32245947](#)). Involved in translationally coupled mRNA turnover (PubMed:[11051545](#)). Implicated with other RNA-binding proteins in the cytoplasmic deadenylation/translational and decay interplay of the FOS mRNA mediated by the major coding-region determinant of instability (mCRD) domain (PubMed:[11051545](#)). Involved in regulation of nonsense-mediated decay (NMD) of mRNAs containing premature stop codons; for the recognition of premature termination codons (PTC) and initiation of NMD a competitive interaction between UPF1 and PABPC1 with the ribosome-bound release factors is proposed (PubMed:[18447585](#)). By binding to long poly(A) tails, may protect them from uridylation by ZCCHC6/ZCCHC11 and hence contribute to mRNA stability (PubMed:[25480299](#)).

#### Cellular Location

Cytoplasm. Cytoplasm, Stress granule. Nucleus. Cell projection, lamellipodium. Note=Localized in cytoplasmic mRNP granules containing untranslated mRNAs (PubMed:17289661). Shuttles between the cytoplasm and the nucleus (PubMed:9582337). During stress and in the absence of DDX3X, localizes to the nucleus (PubMed:21883093). At the leading edge of migrating fibroblasts, colocalizes with DDX3X (PubMed:28733330). Relocalizes to cytoplasmic stress granules upon cellular stress where it colocalizes with ENDOV (PubMed:27573237). In case of HRSV infection, localizes in cytoplasmic inclusion bodies substructures called inclusion bodies associated granules (IBAGs) (PubMed:31649314)

#### Tissue Location

Ubiquitous.

## Background

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PABPC1 binds the poly(A) tail of mRNA. It may be involved in cytoplasmic regulatory processes of mRNA metabolism such as pre-mRNA splicing. Its function in translational initiation regulation can either be enhanced by PAIP1 or repressed by PAIP2. PABPC1 can probably bind to cytoplasmic RNA sequences other than poly(A) in vivo. It may be involved in translationally coupled mRNA turnover. Implicated with other RNA-binding proteins in the cytoplasmic deadenylation/translational and decay interplay of the FOS mRNA mediated by the major coding-region determinant of instability (mCRD) domain.

## References

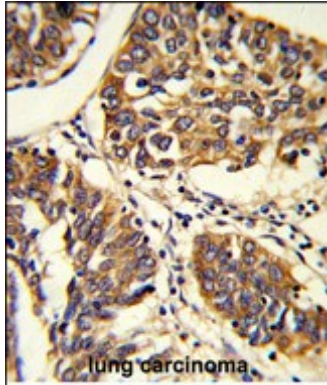
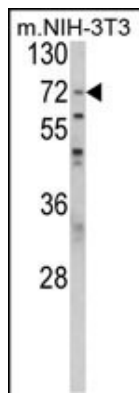
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Le Clerc,S., et.al., J. Infect. Dis. 200 (8), 1194-1201 (2009)

## Images

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Western blot analysis of PABPC1 Antibody (Center) (Cat. #AP2920c) in NIH-3T3 cell line lysates (35ug/lane). PABPC1 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human lung carcinoma reacted with PABPC1 Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

## Citations

- [Exosomal circPABPC1 promotes colorectal cancer liver metastases by regulating HMGA2 in the nucleus and BMP4/ADAM19 in the cytoplasm](#)

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