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# PABP1 Recombinant Rabbit mAb

Catalog # AP99565

## Product Information

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| **Application** | WB, IHC-P, IHC-F, IF, IP, E |
| **Primary Accession** | P11940 |
| **Other Accession** | P11940 |
| **Reactivity** | Rat, Human, Mouse |
| **Host** | Rabbit |
| **Clonality** | Recombinant |
| **Calculated MW** | 70671 |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| **SIMILARITY** | Belongs to the polyadenylate-binding protein type-1 family. Contains 1 PABC domain. Contains 4 RRM (RNA recognition motif) domains. |
| **SUBUNIT** | Component of a multi subunit autoregulatory ribonucleoprotein complex (ARC), at least composed of IGF2BP1, PABPC1 and CSDE1. |
| **Post-translational modifications** | Phosphorylated by MAPKAPK2.Methylated by CARM1. Arg-493 is dimethylated, probably to asymmetric dimethylarginine. |
| **Background Descriptions** | This gene encodes a poly(A) binding protein. The protein shuttles between the nucleus and cytoplasm and binds to the 3' poly(A) tail of eukaryotic messenger RNAs via RNA-recognition motifs. The binding of this protein to poly(A) promotes ribosome recruitment and translation initiation; it is also required for poly(A) shortening which is the first step in mRNA decay. The gene is part of a small gene family including three protein-coding genes and several pseudogenes.[provided by RefSeq, Aug 2010], |

## Additional Information

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| **Gene ID** | 26986 |
| **Other Names** | PAB1; PABP; PABP1; PABPC2; PABPL1; PabpI; ePAB; PABP 1; PABP1_HUMAN; PABPC1; PABP-1; Poly(A)-binding protein 1; PABP1_MOUSE; PABP1_RAT; poly(A) binding protein cytoplasmic 1; poly(A)-binding protein, cytoplasmic 2; Polyadenylate-binding protein 1 (PABP-1) (Poly(A)-binding protein 1) |
| **Dilution** | IHC-P=1:50-200,IHC-F=1:50-200,WB=1:500-2000,IF=1:50-200,ELISA=1:5000-10000,IP=1:50-200 |
| **Storage** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |

## Protein Information

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| **Name** | PABPC1 ( HGNC:8554) |
| **Function** | 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. |

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