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PABP (Methyl Arg455/460) Rabbit pAb

Catalog # AP99508

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P11940
Other Accession	P11940
Reactivity	Rat
Predicted	Pig, Human, Mouse, Rabbit, Chicken, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	70671
Physical State	Liquid
Immunogen	KLH conjugated synthesised metylpeptide derived from human PABP around the metylation site of Arg455/Arg460
Epitope Specificity	GAI(Me-R)PAAP(Me-R)PP
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.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
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

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; PABPC1 | PABP (methyl-R455/460); me-PABP; methyl-PABP; me-PABPC1; PABPC1 | PABP (methyl-Arg455/460)
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500

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

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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