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PABPC4 Rabbit pAb

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Catalog # AP57747

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q13310
Predicted	Human, Mouse, Rat, Dog, Pig, Horse, Rabbit, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	70783
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human PABPC4
Epitope Specificity	221-320/644
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Localized in cytoplasmic mRNP granules containing untranslated mRNAs.
SIMILARITY	Belongs to the polyadenylate-binding protein type-1 family. Contains 1 PABC domain. Contains 4 RRM (RNA recognition motif) domains.
SUBUNIT	Identified in a IGF2BP1-dependent mRNP granule complex containing untranslated mRNAs. Interacts with NFX1.
Post-translational modifications	Arg-518 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	Poly(A)-binding proteins (PABPs) bind to the poly(A) tail present at the 3-prime ends of most eukaryotic mRNAs. PABPC4 or IPABP (inducible PABP) was isolated as an activation-induced T-cell mRNA encoding a protein. Activation of T cells increased PABPC4 mRNA levels in T cells approximately 5-fold. PABPC4 contains 4 RNA-binding domains and proline-rich C terminus. PABPC4 is localized primarily to the cytoplasm. It is suggested that PABPC4 might be necessary for regulation of stability of labile mRNA species in activated T cells. PABPC4 was also identified as an antigen, APP1 (activated-platelet protein-1), expressed on thrombin-activated rabbit platelets. PABPC4 may also be involved in the regulation of protein translation in platelets and megakaryocytes or may participate in the binding or stabilization of polyadenylates in platelet dense granules. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2008]

Additional Information

Gene ID	8761

Other Names	Polyadenylate-binding protein 4, PABP-4, Poly(A)-binding protein 4, Activated-platelet protein 1, APP-1, Inducible poly(A)-binding protein, iPABP, PABPC4, APP1, PABP4
Target/Specificity	Expressed at low levels in resting normal T cells; following T-cell activation, however, mRNA levels are rapidly up-regulated.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
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	PABPC4
Synonyms	APP1, PABP4
Function	Binds the poly(A) tail of mRNA (PubMed: 8524242). Binds to SMIM26 mRNA and plays a role in its post-transcriptional regulation (PubMed:37009826). May be involved in cytoplasmic regulatory processes of mRNA metabolism. Can probably bind to cytoplasmic RNA sequences other than poly(A) in vivo (By similarity).
Cellular Location	Cytoplasm. Note=Localized in cytoplasmic mRNP granules containing untranslated mRNAs.
Tissue Location	Expressed at low levels in resting normal T cells; following T-cell activation, however, mRNA levels are rapidly up- regulated

Background

Poly(A)-binding proteins (PABPs) bind to the poly(A) tail present at the 3-prime ends of most eukaryotic mRNAs. PABPC4 or IPABP (inducible PABP) was isolated as an activation-induced T-cell mRNA encoding a protein. Activation of T cells increased PABPC4 mRNA levels in T cells approximately 5-fold. PABPC4 contains 4 RNA-binding domains and proline-rich C terminus. PABPC4 is localized primarily to the cytoplasm. It is suggested that PABPC4 might be necessary for regulation of stability of labile mRNA species in activated T cells. PABPC4 was also identified as an antigen, APP1 (activated-platelet protein-1), expressed on thrombin-activated rabbit platelets. PABPC4 may also be involved in the regulation of protein translation in platelets and megakaryocytes or may participate in the binding or stabilization of polyadenylates in platelet dense granules. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2008]