PABP2 Rabbit pAb

CatalogNo: YN1070

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse

Applications
- WB,ELISA

MW
- 33kD (Observed)

Isotype
- IgG

Recommended Dilution Ratios

WB 1:500-2000
ELISA 1:5000-20000

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol,0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	Synthesized peptide derived from human protein . at AA range: 170-250
Specificity	PABP2 Polyclonal Antibody detects endogenous levels of protein.

Target Information

Gene name	PABPN1 PAB2 PABP2

Protein Name Polyadenylate-binding protein 2 (PABP-2) (Poly(A)-binding protein 2) (Nuclear poly(A)-binding protein 1) (Poly(A)-binding protein II) (PABII) (Polyadenylate-binding nuclear protein 1)

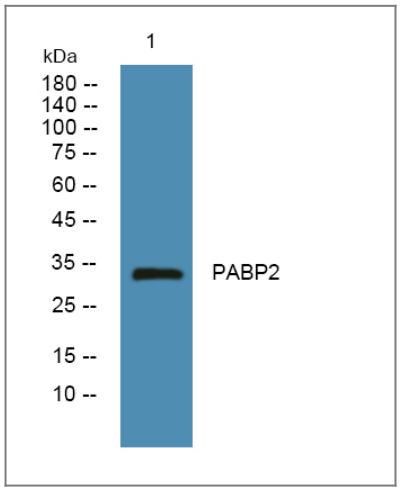
Organism	Gene ID	UniProt ID
Human	8106;	Q86U42;
Mouse		Q8CCS6;

Cellular 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.

Function Disease:Defects in PABPN1 are the cause of oculopharyngeal muscular dystrophy (OPMD) [MIM:164300]. OPMD is a form of late-onset slowly progressive myopathy characterized by eyelid ptosis, dysphagia and, sometimes by other cranial and limb-muscle involvement.,Domain:The RRM domain is essential for specific adenine bases recognition in the poly(A) tail but not sufficient for poly(A) binding.,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. Stimulates poly(A) polymerase (PAPOLA) conferring processivity on the poly(A) tail elongation reaction and controls also the poly(A) tail length. Increases the affinity of poly(A) polymerase for RNA. 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. Binds to poly(A) and to poly(G) with high affinity. May protect the poly(A) tail from degradation.,miscellaneous: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. The association of the expanded polyalanine mutations together with the capability to oligomerize may induce these inclusions and cell death. Expanded polyalanine mutations may either result from unequal crossing over during germ cell homologous recombination or from DNA slippage. The pathogenic mechanisms mediated by polyalanine expansion mutations may be either a general disruption of cellular RNA metabolism due to the trapping by the inclusions of PABPN1, mRNAs and/or nuclear proteins, resulting in the induction of cell death; or may change the normal muscle cell differentiation.,polymorphism:The poly-Ala region of PABPN1 is polymorphic (6-7 repeats) in the population and is expanded to 8-13 repeats in OPMD patients. Compound heterozygotes for (GCG)9 mutation and a (GCG)7 allele result in earlier onset and more severe clinical manifestations of the disease.,PTM:Arginine dimethylation is asymmetric and involves PRMT1 and PRMT3. It does not influence the RNA binding properties.,similarity:Contains 1 RRM (RNA recognition motif) domain.,subcellular location:Shuttles between the nucleus and the cytoplasm but predominantly found in the nucleus. Its nuclear import may involve the nucleocytoplasmic transport receptor transportin and a RAN-GTP-sensitive import mechanism. Is exported to the cytoplasm by a carrier-mediated pathway that is independent of mRNA traffic. Nucleus; nuclear speckle. Colocalizes with SKIP and poly(A) RNA in nuclear speckles.,subunit:Monomer and homooligomer. Binds RNA as a monomer and oligomerizes when bound to poly(A). Interacts with PAPOLA, but only in presence of oligo(A) RNA. Interacts with transportin (By similarity). Association in a ternary complex with CPSF4 and influenza A virus NS1 blocks pre-mRNAs processing, thereby preventing nuclear export of host cell mRNAs. Associates in a single complex with SKIP and MYOD1 and interacts with SKIP in differentiated myocytes. Interacts with NUDT21/CPSF5.,tissue specificity:Ubiquitous.,

Validation Data



Western blot analysis of lysates from U2OS cells, primary antibody was diluted at 1:1000, 4°over night

Contact information

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Please scan the QR code to access additional product information:
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