

PAN3 Antibody
Rabbit Polyclonal Antibody
Catalog # ALS15706**Specification**

PAN3 Antibody - Product Information

Application	IF
Primary Accession	Q58A45
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	96kDa KDa

PAN3 Antibody - Additional Information**Gene ID** 255967**Other Names**

PAB-dependent poly(A)-specific ribonuclease subunit PAN3
{ECO:0000255|HAMAP-Rule:MF_03181}, PAB1P-dependent poly(A)-nuclease
{ECO:0000255|HAMAP-Rule:MF_03181}, PAN deadenylation complex subunit 3
{ECO:0000255|HAMAP-Rule:MF_03181}, hPan3, PAN3 {ECO:0000255|HAMAP-Rule:MF_03181}

Target/Specificity

Human PAN3. Predicted cross-reactivity based on amino acid sequence homology: mouse (98%), bovine (83%).

Reconstitution & Storage

Aliquot and store at -20°C. Minimize freezing and thawing.

Precautions

PAN3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

PAN3 Antibody - Protein Information**Name** PAN3 {ECO:0000255|HAMAP-Rule:MF_03181}**Function**

Regulatory subunit of the poly(A)-nuclease (PAN) deadenylation complex, one of two cytoplasmic mRNA deadenylases involved in general and miRNA-mediated mRNA turnover. PAN specifically shortens poly(A) tails of RNA and the activity is stimulated by poly(A)-binding protein (PABP). PAN deadenylation is followed by rapid degradation of the shortened mRNA tails by the CCR4-NOT complex. Deadenylated mRNAs are then degraded by two alternative mechanisms, namely exosome-mediated 3'-5' exonucleolytic degradation, or deadenylation-dependent mRNA decapping and subsequent 5'-3' exonucleolytic degradation by XRN1. PAN3 acts as a regulator for PAN activity, recruiting the catalytic subunit PAN2 to mRNA via its interaction with RNA and PABP, and to miRNA targets via its interaction with GW182 family proteins.

Cellular Location

Cytoplasm, P-body {ECO:0000255|HAMAP- Rule:MF_03181, ECO:0000269|PubMed:14583602, ECO:0000269|PubMed:18625844} [Isoform 3]: Cytoplasm

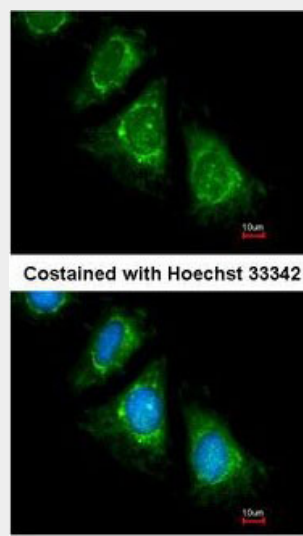
Volume

50 μ l

PAN3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

PAN3 Antibody - Images

Immunofluorescence of methanol-fixed HeLa, using PAN3 antibody at 1:200 dilution.

PAN3 Antibody - Background

Regulatory subunit of the poly(A)-nuclease (PAN) deadenylation complex, one of two cytoplasmic mRNA deadenylases involved in general and miRNA-mediated mRNA turnover. PAN specifically shortens poly(A) tails of RNA when the poly(A) stretch is bound by poly(A)-binding protein (PABP), which is followed by rapid degradation of the shortened mRNA tails by the CCR4-NOT complex. Deadened mRNAs are then degraded by two alternative mechanisms, namely exosome-mediated 3'-5' exonucleolytic degradation, or deadenylation-dependent mRNA decapping and subsequent 5'-3' exonucleolytic degradation by XRN1. PAN3 acts as a positive regulator for PAN activity, recruiting the catalytic subunit PAN2 to mRNA via its interaction with PABP and to miRNA targets via its interaction with GW182 family proteins.

PAN3 Antibody - References

Ota T.,et al.Nat. Genet. 36:40-45(2004).
Dunham A.,et al.Nature 428:522-528(2004).
Uchida N.,et al.J. Biol. Chem. 279:1383-1391(2004).
Bechtel S.,et al.BMC Genomics 8:399-399(2007).
Funakoshi Y.,et al.Genes Dev. 21:3135-3148(2007).