

Product Name: Pumilio 1 (7B2) Rabbit Monoclonal Antibody
Catalog #: AMRe16692



Summary

Production Name	Pumilio 1 (7B2) Rabbit Monoclonal Antibody
Description	Rabbit Monoclonal Antibody
Host	Rabbit
Application	WB
Reactivity	Human,Mouse

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Supplied in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% New type preservative N and 0.05% BSA.
Purification	Affinity purification

Immunogen

Gene Name	PUM1
Alternative Names	HsPUM; PUM L1; Pum1; PUMH 1; PUMH; PUMH1; Pumilio1; PUML1;
Gene ID	9698.0
SwissProt ID	Q14671.A synthetic peptide of human Pumilio 1

Application

Dilution Ratio	WB: 1:1000-1:2000
Molecular Weight	127kDa

Background

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Mediates post-transcriptional repression of transcripts via different mechanisms: acts via direct recruitment of the CCR4-POP2-NOT deadenylase leading to translational inhibition and mRNA degradation. Sequence-specific RNA-binding protein that acts as a post-transcriptional repressor by binding the 3'-UTR of mRNA targets. Binds to an RNA consensus sequence, the Pumilio Response Element (PRE), 5'-UGUANAUA-3', that is related to the Nanos Response Element (NRE) (PubMed: 21572425, PubMed: 18328718, PubMed: 21653694, PubMed: 21397187). Mediates post-transcriptional repression of transcripts via different mechanisms: acts via direct recruitment of the CCR4-POP2-NOT deadenylase leading to translational inhibition and mRNA degradation (PubMed: 22955276). Also mediates deadenylation-independent repression by promoting accessibility of miRNAs (PubMed: 18776931, PubMed: 20818387, PubMed: 20860814, PubMed: 22345517). Following growth factor stimulation, phosphorylated and binds to the 3'-UTR of CDKN1B/p27 mRNA, inducing a local conformational change that exposes miRNA-binding sites, promoting association of miR-221 and miR-222, efficient suppression of CDKN1B/p27 expression, and rapid entry to the cell cycle (PubMed: 20818387). Acts as a post-transcriptional repressor of E2F3 mRNAs by binding to its 3'-UTR and facilitating miRNA regulation (PubMed: 22345517, PubMed: 29474920). Represses a program of genes necessary to maintain genomic stability such as key mitotic, DNA repair and DNA replication factors. Its ability to repress those target mRNAs is regulated by the lncRNA NORAD (non-coding RNA activated by DNA damage) which, due to its high abundance and multitude of PUMILIO binding sites, is able to sequester a significant fraction of PUM1 and PUM2 in the cytoplasm (PubMed: 26724866). Involved in neuronal functions by regulating ATXN1 mRNA levels: acts by binding to the 3'-UTR of ATXN1 transcripts, leading to their down-regulation independently of the miRNA machinery (PubMed: 25768905, PubMed: 29474920). Plays a role in cytoplasmic sensing of viral infection (PubMed: 25340845). In testis, acts as a post-transcriptional regulator of spermatogenesis by binding to the 3'-UTR of mRNAs coding for regulators of p53/TP53. Involved in embryonic stem cell renewal by facilitating the exit from the ground state: acts by targeting mRNAs coding for naive pluripotency transcription factors and accelerates their down-regulation at the onset of differentiation (By similarity). Binds specifically to miRNA MIR199A precursor, with PUM2, regulates miRNA MIR199A expression at a postranscriptional level (PubMed: 25340845).

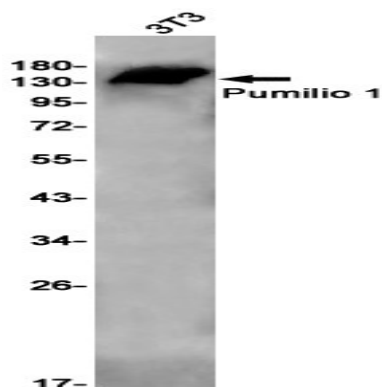
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<http://www.uniprot.org/citations/28431233> target="_blank">28431233).

Research Area

Image Data



Western blot detection of Pumilio 1 in 3T3 cell lysates using Pumilio 1 antibody(1:1000 diluted).

Note

For research use only.