

ARG59734 anti-PUM1 / Pumilio 1 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes PUM1 / Pumilio 1
Tested Reactivity	Hu
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	PUM1 / Pumilio 1
Species	Human
Immunogen	KLH-conjugated synthetic peptide between aa. 62-91 of Human PUM1.
Conjugation	Un-conjugated
Alternate Names	Pumilio-1; PUM1; Pumilio homolog 1; HsPUM; HSPUM; PUMH; PUMH1

Application Instructions

Application table	Application	Dilution
	IHC-P	1:10 - 1:50
	WB	1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	NCCIT	

Properties

Form	Liquid
Purification	Purification with Protein A and immunogen peptide.
Buffer	PBS and 0.09% (W/V) Sodium azide.
Preservative	0.09% (W/V) Sodium azide.
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

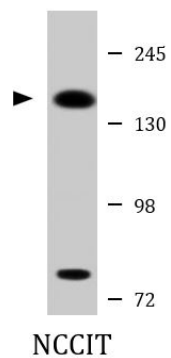
Gene Symbol	PUM1
Gene Full Name	pumilio RNA-binding family member 1
Background	This gene encodes a member of the PUF family, evolutionarily conserved RNA-binding proteins related to the Pumilio proteins of <i>Drosophila</i> and the fem-3 mRNA binding factor proteins of <i>C. elegans</i> . The encoded protein contains a sequence-specific RNA binding domain comprised of eight repeats and N- and C-terminal flanking regions, and serves as a translational regulator of specific mRNAs by binding to their 3' untranslated regions. The evolutionarily conserved function of the encoded protein in invertebrates and lower vertebrates suggests that the human protein may be involved in translational regulation of embryogenesis, and cell development and differentiation. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Jul 2008]
Function	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). 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. Also mediates deadenylation-independent repression by promoting accessibility of miRNAs. 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. Acts as a post-transcriptional repressor of E2F3 mRNAs by binding to its 3'-UTR and facilitating miRNA regulation. 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. Plays a role in cytoplasmic sensing of viral infection. 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). [UniProt]
Calculated Mw	126 kDa
PTM	Phosphorylation at Ser-714 promotes RNA-binding activity. Following growth factor stimulation phosphorylated at Ser-714, promoting binding to the 3'-UTR of CDKN1B/p27 mRNA. [UniProt]
Cellular Localization	Cytoplasm. Cytoplasm, P-body. Cytoplasmic granule. Note=Recruited to cytoplasmic stress granules upon viral infection. [UniProt]

Images



ARG59734 anti-PUM1 / Pumilio 1 antibody IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Human brain stained with ARG59734 anti-PUM1 / Pumilio 1 antibody.



ARG59734 anti-PUM1 / Pumilio 1 antibody WB image

Western blot: 20 µg of NCCIT cell lysate stained with ARG59734 anti-PUM1 / Pumilio 1 antibody at 1:1000 dilution.