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Goat Anti-PUM2 Antibody

Peptide-affinity purified goat antibody

Catalog # AF1886a

Specification

Goat Anti-PUM2 Antibody - Product Information

Application	**WB, E**
Primary Accession	Q8TB72
Other Accession	NP_056132, 23369
Reactivity	**Human**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**114216**

Goat Anti-PUM2 Antibody - Additional Information

Gene ID 23369

Other Names
Pumilio homolog 2, Pumilio-2, PUM2, KIAA0235, PUMH2

Dilution
WB~~1:1000
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-PUM2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-PUM2 Antibody - Protein Information

Name PUM2

Synonyms KIAA0235, PUMH2

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) (, 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:22345517). Acts as a post-transcriptional repressor of E2F3 mRNAs by binding to its 3'-UTR and facilitating miRNA regulation (PubMed:22345517). Plays a role in cytoplasmic sensing of viral infection (PubMed:25340845). 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). May regulate DCUN1D3 mRNA levels (PubMed:25349211). May support proliferation and self-renewal of stem cells. Binds specifically to miRNA MIR199A precursor, with PUM1, regulates miRNA MIR199A expression at a postranscriptional level (PubMed:28431233).

Cellular Location
Cytoplasm. Cytoplasmic granule. Cytoplasm, perinuclear region. Note=The cytoplasmic granules are stress granules which are a dense aggregation in the cytosol composed of proteins and RNAs that appear when the cell is under stress. Colocalizes with NANOS3 in the stress granules Colocalizes with NANOS1 and SNAPIN in the perinuclear region of germ cells.

Tissue Location
Expressed in male germ cells of adult testis (at protein level). Highly expressed in testis and ovary. Predominantly expressed in stem cells and germ cells. Expressed at lower level in brain, heart, kidney, liver, muscle, placenta, intestine and stomach Expressed in cerebellum, corpus callosum, caudate nucleus, hippocampus, medulla oblongata and putamen. Expressed in all fetal tissues tested

Goat Anti-PUM2 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 Cytomety
- Cell Culture

Goat Anti-PUM2 Antibody - Images

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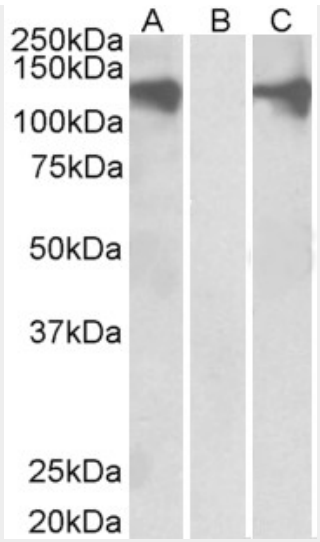

HEK293 lysate (10ug protein in RIPA buffer) overexpressing Human PUM2 with DYKDDDDK tag probed with AF1886a (0.5ug/ml) in Lane A and probed with anti- DYKDDDDK Tag (1/3000) in lane C. Mock-transfected HEK293 probed with AF1886a (1mg/ml) in Lane B. Primary incubations were for 1 hour. Detected by chemiluminescence.

Goat Anti-PUM2 Antibody - References

The SNARE-associated component SNAPIN binds PUMILIO2 and NANOS1 proteins in human male germ cells. Ginter-Matuszewska B, et al. Mol Hum Reprod, 2009 Mar. PMID 19168546.
Polymorphisms of the human PUMILIO2 gene and male sterility. Kusz K, et al. Mol Reprod Dev, 2007 Jun. PMID 17154300.
Global, in vivo, and site-specific phosphorylation dynamics in signaling networks. Olsen JV, et al. Cell, 2006 Nov 3. PMID 17081983.
Candidate mRNAs interacting with fertility protein PUMILIO2 in the human germ line. Spik A, et al. Reprod Biol, 2006. PMID 16967088.
Generation and annotation of the DNA sequences of human chromosomes 2 and 4. Hillier LW, et al. Nature, 2005 Apr 7. PMID 15815621.