

Rabbit PIWIL2 Polyclonal Antibody | anti-PIWIL2 antibody

PIWIL2 Antibody

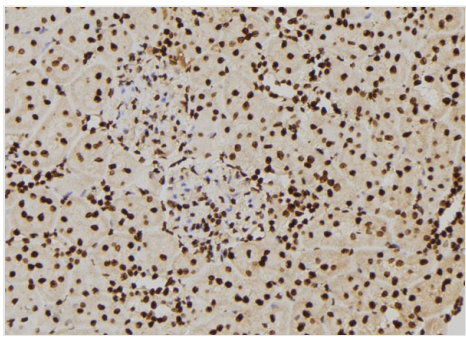
CATALOG # AAA326900	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS ELISA, Immunohistochemistry, Western Blot
-------------------------------	-----------------------	--	--

PRODUCT SYNONYMS

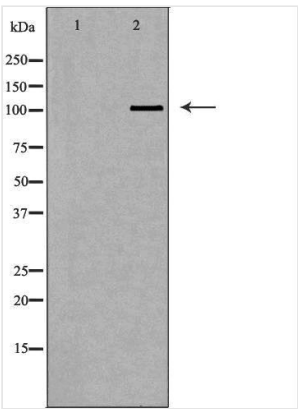
PIWIL2; Polyclonal Antibody; PIWIL2 Antibody; Cancer/testis antigen 80; CT80; Hiwi like; MILL; Miwi like; Piwi like 2; Piwi-like protein 2; Piwil2; PIWL2_HUMAN; anti-PIWIL2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	PIWIL2 antibody detects endogenous levels of total PIWIL2
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	973
Applicable Applications for anti-PIWIL2 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthetic peptide of human PIWIL2
Subcellular Location	Cytoplasm. Present in chromatoid body. Probable component of the meiotic nuage, also named P granule, a germ-cell-specific organelle required to repress transposon during meiosis.
Tissue Specificity	Expressed in adult testis and in most tumors.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (100%), Zebrafish (92%), Bovine (100%), Horse (100%), Rabbit (100%), Dog (100%), Chicken (91%), Xenopus (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemistry)
AAA326900 at 1/100 staining Rat kidney tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of extracts of 293T, using PIWIL2 antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-PIWIL2 antibody

Description: PIWIL2 belongs to the Argonaute family of proteins, which function in development and maintenance of germline stem cells. Plays a central role during spermatogenesis by repressing transposable elements and prevent their mobilization, which is essential for the germline integrity. Plays an essential role in meiotic differentiation of spermatocytes, germ cell differentiation and in self-renewal of spermatogonial stem cells. Its presence in oocytes suggests that it may participate in similar functions during oogenesis in females. Indirectly modulate expression of genes such as PDGFRB, SLC2A1, ITGA6, GJA7, THY1, CD9 and STRA8. Inhibits tumor cell growth when repressed. When overexpressed, acts as an oncogene by inhibition of apoptosis and promotion of proliferation in tumors.

Function: Endoribonuclease that plays a central role during spermatogenesis by repressing transposable elements and preventing their mobilization, which is essential for the germline integrity (By similarity). Plays an essential role in meiotic differentiation of spermatocytes, germ cell differentiation and in self-renewal of spermatogonial stem cells (By similarity). Acts via the piRNA metabolic process, which mediates the repression of transposable elements during meiosis by forming complexes composed of piRNAs and Piwi proteins and govern the methylation and subsequent repression of transposons (By similarity). During piRNA biosynthesis, plays a key role in the piRNA amplification loop, also named ping-pong amplification cycle, by acting as a 'slicer-competent' piRNA endoribonuclease that cleaves primary piRNAs, which are then loaded onto 'slicer-incompetent' PIWIL4 (By similarity). PIWIL2 slicing produces a pre-miRNA intermediate, which is then processed in mature piRNAs, and as well as a 16 nucleotide by-product that is degraded (By similarity). Required for PIWIL4/MIWI2 nuclear localization and association with secondary piRNAs antisense (By similarity). Besides their function in transposable elements repression, piRNAs are probably involved in other processes during meiosis such as translation regulation (By similarity). Indirectly modulates expression of genes such as PDGFRB, SLC2A1, ITGA6, GJA7, THY1, CD9 and STRA8 (By similarity). When overexpressed, acts as an oncogene by inhibition of apoptosis and promotion of proliferation in tumors (PubMed:16377660).

Subunit Structure: Interacts with DDX4, MAEL, EIF3A, EIF4E, EIF4G, PRMT5 and WDR77. Associates with EIF4E- and EIF4G-containing m7G cap-binding complexes. Interacts (when methylated on arginine residues) with TDRD1 and TDRKH/TDRD2. Interacts with TDRD12. Component of the PET complex, at least composed of EXD1, PIWIL2, TDRD12 and piRNAs. Interacts with MOV10L1. Interacts with GPAT2. Interacts with TEX19 (By similarity).

Post-translational Modifications: Arginine methylation by PRMT5 is required for the interaction with Tudor domain-containing protein TDRD1 and subsequent localization to the meiotic nuage, also named P granule.

Similarity: Belongs to the argonaute family. Piwi subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	209180418
NCBI GeneID	55124
NCBI Accession #	NP_001129193.1
NCBI GenBank Nucleotide #	NM_001135721.2

UniProt Accession #	Q8TC59 ; Q96SW6 ; Q9NW28 ; A8K4S3 ; A8K8S5 ; B0AZN9 ; B0AZP2 ; B4DR22 ; E7ECA4
Molecular Weight	Observed: 110 kDa Predicted: 110 kDa
NCBI Official Full Name	piwi-like protein 2 isoform 1
NCBI Official Synonym Full Names	piwi like RNA-mediated gene silencing 2
NCBI Official Symbol	PIWIL2
NCBI Official Synonym Symbols	CT80; HILI; mili; PIWIL1L
NCBI Protein Information	piwi-like protein 2
UniProt Protein Name	Piwi-like protein 2
UniProt Gene Name	PIWIL2
UniProt Synonym Gene Names	HILI; CT80

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/polyclonal/piwil2-antibody-immunohistochemistry-western-blot-elisa/326900>