

**PIWIL2 Antibody (N-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP19056a**

**Specification**

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**PIWIL2 Antibody (N-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">Q8TC59</a>
Other Accession	<a href="#">NP_060538.2</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	109849
Antigen Region	90-119

**PIWIL2 Antibody (N-term) - Additional Information**

**Gene ID** 55124

**Other Names**

Piwi-like protein 2, Cancer/testis antigen 80, CT80, PIWIL2, HILI

**Target/Specificity**

This PIWIL2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 90-119 amino acids from the N-terminal region of human PIWIL2.

**Dilution**

WB~~1:1000

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

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

**Precautions**

PIWIL2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**PIWIL2 Antibody (N-term) - Protein Information**

**Name** PIWIL2

**Synonyms** HILI

**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](#)). Represses circadian rhythms by promoting the stability and activity of core clock components BMAL1 and CLOCK by inhibiting GSK3B-mediated phosphorylation and ubiquitination-dependent degradation of these proteins (PubMed:[28903391](#)).

#### Cellular Location

Cytoplasm {ECO:0000250|UniProtKB:Q8CDG1}. Note=Present in chromatoid body. Probable component of the meiotic nuage, also named P granule, a germ-cell-specific organelle required to repress transposon activity during meiosis {ECO:0000250|UniProtKB:Q8CDG1}

#### Tissue Location

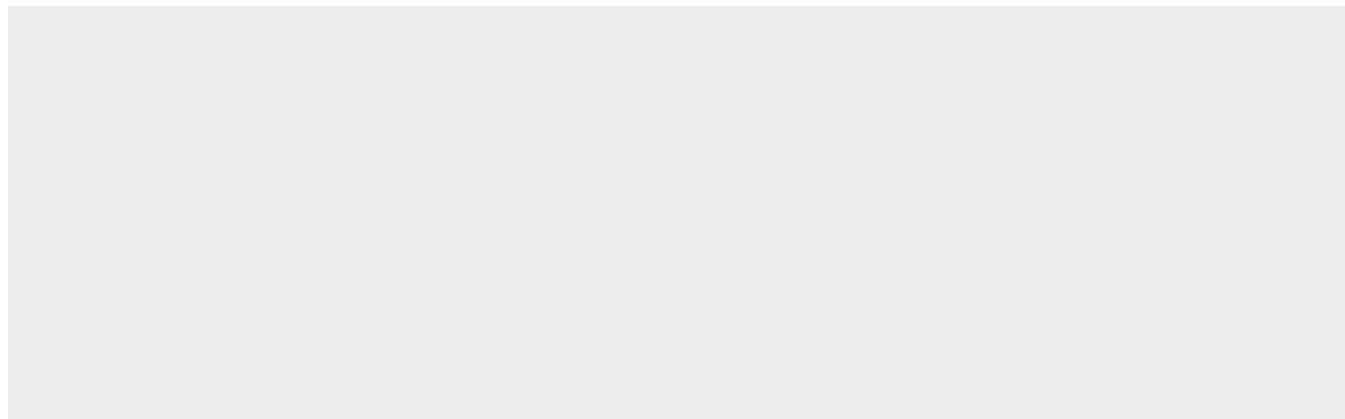
Expressed in adult testis and in most tumors.

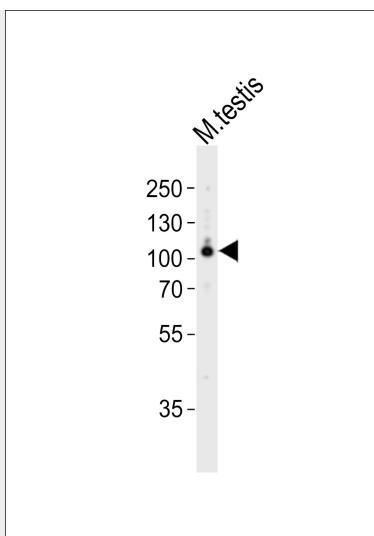
#### PIWIL2 Antibody (N-term) - Protocols

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

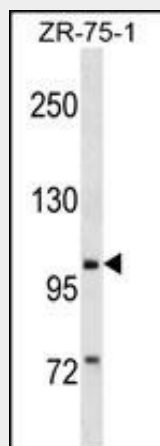
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### PIWIL2 Antibody (N-term) - Images





Western blot analysis of lysate from mouse testis tissue lysate, using PIWIL2 Antibody (N-term)(Cat. #AP19056a). AP19056a was diluted at 1:500. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.



PIWIL2 Antibody (N-term) (Cat. #AP19056a) western blot analysis in ZR-75-1 cell line lysates (35ug/lane). This demonstrates the PIWIL2 antibody detected the PIWIL2 protein (arrow).

#### **PIWIL2 Antibody (N-term) - Background**

PIWIL2 belongs to the Argonaute family of proteins, which function in development and maintenance of germline stem cells (Sasaki et al., 2003 [PubMed 12906857]).

#### **PIWIL2 Antibody (N-term) - References**

- Lee, J.H., et al. Cancer Res. 70(11):4569-4579(2010)
- Liu, J.J., et al. Int J Clin Exp Pathol 3(4):328-337(2010)
- Nikpour, P., et al. Cancer Epidemiol 33 (3-4), 271-275 (2009) :
- Lee, J.H., et al. Hum. Mol. Genet. 15(2):201-211(2006)
- Kuramochi-Miyagawa, S., et al. Development 131(4):839-849(2004)