

## Product datasheet

# Anti-PIWIL4/PIWI antibody ab87939

★★★★★ 1 Abreviews 2 References 2 Images

### Overview

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<b>Product name</b>	Anti-PIWIL4/PIWI antibody
<b>Description</b>	Rabbit polyclonal to PIWIL4/PIWI
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant fragment corresponding to Human PIWIL4/PIWI.
<b>General notes</b>	This product was previously labelled as PIWIL4

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

### Properties

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<b>Form</b>	Liquid
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<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.02% Sodium azide Constituents: 2% BSA, PBS
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab87939** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/200 - 1/1000. Predicted molecular weight: 97 kDa.
IHC-P		1/50 - 1/200.

## Target

**Function** Plays a central role during spermatogenesis by repressing transposable elements and prevent their mobilization, which is essential for the germline integrity. 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. Directly binds piRNAs, a class of 24 to 30 nucleotide RNAs that are generated by a Dicer-independent mechanism and are primarily derived from transposons and other repeated sequence elements. Associates with secondary piRNAs antisense and PIWIL2/MILI is required for such association. The piRNA process acts upstream of known mediators of DNA methylation. Participates to a piRNA amplification loop. Besides their function in transposable elements repression, piRNAs are probably involved in other processes during meiosis such as translation regulation (By similarity). May be involved in the chromatin-modifying pathway by inducing 'Lys-9' methylation of histone H3 at some loci.

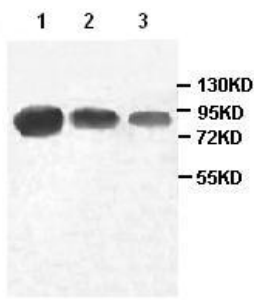
**Tissue specificity** Expressed in testis. According to PubMed:17544373, it is ubiquitously expressed.

**Sequence similarities** Belongs to the argonaute family. Piwi subfamily.  
Contains 1 PAZ domain.  
Contains 1 Piwi domain.

**Post-translational modifications** Arginine methylation by PRMT5 is required for the interaction with Tudor domain-containing protein (TDRD1, TDRKH/TDRD2 and TDRD9) and subsequent localization to the meiotic nuage, also named P granule.

**Cellular localization** Nucleus. Cytoplasm. Probable component of the meiotic nuage, also named P granule, a germ-cell-specific organelle required to repress transposon during meiosis. PIWIL2/MILI is required for nuclear localization.

## Images



Western blot - Anti-PIWIL4/PIWI antibody (ab87939)

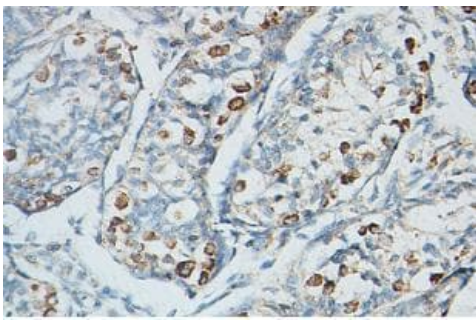
**All lanes :** Anti-PIWIL4/PIWI antibody (ab87939) at 1/500 dilution

**Lane 1 :** HepG2 cell lysate

**Lane 2 :** HeLa cell lysate

**Lane 3 :** Human fetal testis cell lysate

**Predicted band size:** 97 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PIWIL4/PIWI antibody (ab87939)

ab87939 at 1/100 dilution, staining PIWIL4/PIWI in formalin-fixed paraffin-embedded testis tissue showing nuclear staining.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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- Response to your inquiry within 24 hours
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