

Product datasheet

Anti-PIWIL4/PIWI antibody ab87939

★★★★★ [1 Abreviews](#) [3 References](#) [2 Images](#)

Overview

Product name	Anti-PIWIL4/PIWI antibody
Description	Rabbit polyclonal to PIWIL4/PIWI
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Recombinant fragment corresponding to Human PIWIL4/PIWI.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>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, along with publications, customer reviews and Q&As</p>

Properties

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

Applications

The Abpromise guarantee 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 PWIL2/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.

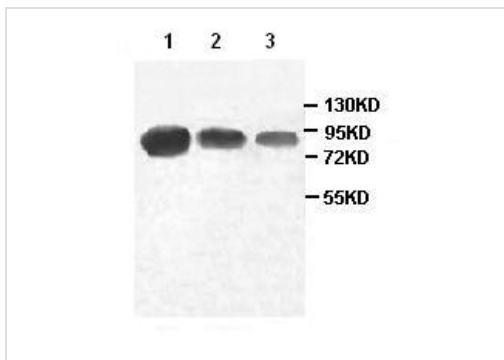
Post-translational modifications

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. PWIL2/MILI is required for nuclear localization.

Images



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

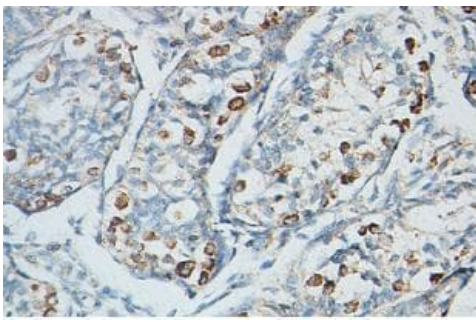
All lanes : Anti-PIWIL4/PIWI antibody (ab87939) at 1/500 dilution

Lane 1 : HepG2 cell lysate

Lane 2 : HeLa cell lysate

Lane 3 : Human fetal testis cell lysate

Predicted band size: 97 kDa



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

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

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors