




Product datasheet

Anti-PIWIL2 antibody ab85084

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Overview

Product name	Anti-PIWIL2 antibody
Description	Rabbit polyclonal to PIWIL2
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P
Species reactivity	<p>Reacts with: Human</p> <p>Predicted to work with: Mouse, Rat, Horse, Cow, Dog, Chimpanzee </p>
Immunogen	<p>Synthetic peptide:</p> <p>VITRYNNRITYRIDDVD</p> <p>, corresponding to internal sequence amino acids 418-433 of Human PIWIL2</p> <p style="text-align: right;">  Run BLAST with  Run BLAST with </p>
Positive control	Testis tissue. Human fetal testis lysate.
General notes	<p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>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.</p> <p>In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.</p> <p>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.</p> <p>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.</p> <p>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.</p>

Properties

Form	Lyophilized:Reconstitute with 200ul distilled sterile water. Please note that if you receive this product in liquid form it has already been reconstituted as described and no further reconstitution is necessary.
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: 1% BSA, 0.184% Tris glycine
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab85084** 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 - 1/500. Predicted molecular weight: 110 kDa.
IHC-P		1/100 - 1/400.

Target

Function	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 to similar functions during oogenesis in females. 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 primary piRNAs in the cytoplasm and is required for PWIL4/MIWI2 nuclear localization and association with secondary piRNAs antisense. 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. 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.
Tissue specificity	Expressed in adult testis and in most tumors.
Sequence similarities	Belongs to the argonaute family. Piwi subfamily. Contains 1 PAZ domain. Contains 1 Piwi domain.

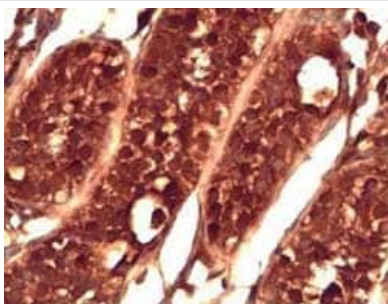
Post-translational modifications

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

Cellular localization

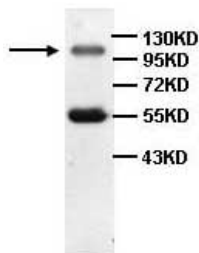
Cytoplasm. Present in chromatoid body. Probable component of the meiotic nuage, also named P granule, a germ-cell-specific organelle required to repress transposon during meiosis.

Images



Immunohistochemistry analysis of PIWIL2 in formalin-fixed paraffin-embedded human fetal testis tissue sections using ab85084 at 1/200 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PIWIL2 antibody (ab85084)



Anti-PIWIL2 antibody (ab85084) at 1/200 dilution + Human fetal testis lysate

Predicted band size: 110 kDa

Observed band size: 110 kDa

Additional bands at: 55 kDa. We are unsure as to the identity of these extra bands.

Western blot - Anti-PIWIL2 antibody (ab85084)

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

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