abcam

Product datasheet

Anti-PIWIL2 antibody ab36764

1 Abreviews 17 References 1 Image

Overview

Product name	Anti-PIWIL2 antibody
Description	Rabbit polyclonal to PIWIL2
Host species	Rabbit
Tested applications	**Suitable for:** WB, ICC/IF, IHC-Fr, IP, Flow Cyt, Electron Microscopy
Species reactivity	**Reacts with:** Mouse
Immunogen	Synthetic peptide corresponding to Mouse PIWIL2 aa 1-100 (N terminal) conjugated to keyhole limpet haemocyanin. (Peptide available as **ab27821**, **ab27822**)
General notes	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. 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

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab36764 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)	Use a concentration of 1 µg/ml. Detects a band of approximately 100 kDa (predicted molecular weight: 110 kDa).
ICC/IF		Use at an assay dependent concentration. PubMed: 20460113
IHC-Fr		Use at an assay dependent concentration. PubMed: 20534472
IP		Use at an assay dependent concentration. PubMed: 20460113
Flow Cyt		Use at an assay dependent concentration. PubMed: 20460113 **ab171870** - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.
Electron Microscopy		Use at an assay dependent concentration. PubMed: 20011505

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 PIWIL4/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.

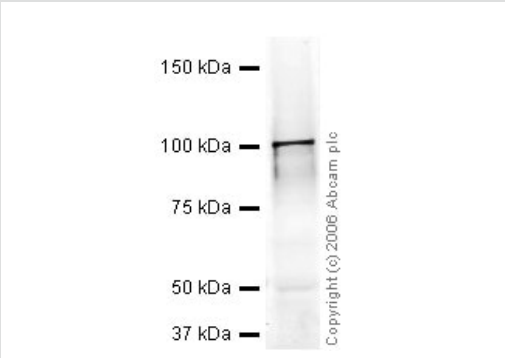
Sequence similarities Belongs to the argonaute family. Piwi subfamily.
Contains 1 PAZ domain.
Contains 1 Piwi domain.

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



Western blot - Anti-PIWIL2 antibody (ab36764)

Anti-PIWIL2 antibody (ab36764) at 1 µg/ml + Mouse Testis Whole Tissue Lysate at 20 µg

Secondary
Goat polyclonal to Rabbit IgG (Alexa Fluor® 680) at 1/10000 dilution

Performed under reducing conditions.

Predicted band size: 110 kDa
Observed band size: 100 kDa

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