



# PIWL4 mouse mAb

<b>Catalog No</b>	YP-mAb-12315
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human; Mouse;Rat
<b>Applications</b>	WB
<b>Gene Name</b>	PIWIL4 HIWI2 PIWI
<b>Protein Name</b>	PIWL4
<b>Immunogen</b>	Synthesized peptide derived from human PIWL4 AA range: 108-158
<b>Specificity</b>	This antibody detects endogenous levels of PIWL4 at Human/Mouse/Rat
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Monoclonal, mouse,IgG
<b>Purification</b>	The antibody was affinity-purified from mouse serum by affinity-chromatography using specific immunogen.
<b>Dilution</b>	WB 1:500-2000
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Calculated Molecular Weight</b>	94kD
<b>Observed Band</b>	
<b>Cell Pathway</b>	Nucleus . Cytoplasm . Probable component of the meiotic nuage, also named P granule, a germ-cell-specific organelle required to repress transposon activity during meiosis. PIWIL2/MILI is required for nuclear localization (By similarity). .
<b>Tissue Specificity</b>	Ubiquitously expressed (PubMed:25038252, PubMed:17544373, PubMed:28025795, PubMed:28711973, PubMed:22483988). Detected in retina, retinal pigment epithelia cells (RPE) (at protein level) (PubMed:28025795).
<b>Function</b>	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



## Background

PIWIL4 belongs to the Argonaute family of proteins, which function in development and maintenance of germline stem cells (Sasaki et al., 2003 [PubMed 12906857]).[supplied by OMIM, Mar 2008],

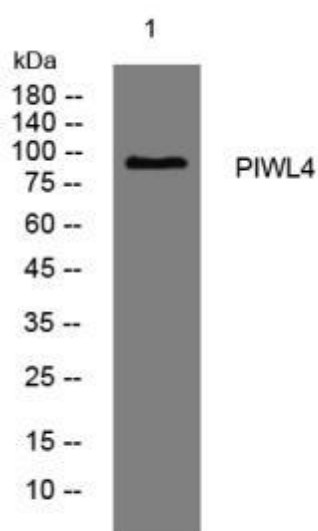
## matters needing attention

Avoid repeated freezing and thawing!

## Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

## Products Images



Western blot analysis of lysates from 293T cells, primary antibody was diluted at 1:1000, 4° over night