



Rabbit Anti-PIWIL4 antibody

SL6853R

Product Name:	PIWIL4
Chinese Name:	piwi样4蛋白抗体
Alias:	HILI 2; HILI2; HIWI 2; HIWI2; Miwi 2 protein; Miwi2; PIWI; Piwi like 2; Piwi like 4 (Drosophila); Piwi like 4; Piwi like protein 4; PIWI like protein; Piwi-like protein 4; PIWIL 4; Piwil4; PIWL4 HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Cow,Horse,Rabbit,Sheep,Monkey,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	94kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human PIWIL4:751-852/852
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	PIWIL4 belongs to the Argonaute family of proteins, which function in development and maintenance of germline stem cells. 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. May be involved in the chromatin-modifying pathway by inducing 'Lys-9' methylation of histone H3 at some loci.

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 in a piRNA amplification loop. Besides their function in transposable elements repression, piRNAs are probably involved in other processes during meiosis such as translation regulation. May be involved in the chromatin-modifying pathway by inducing 'Lys-9' methylation of histone H3 at some loci.

Subunit:

Interacts with PRMT5 and WDR77. Interacts (when methylated on arginine residues) with TDRD1, TDRKH/TDRD2 and TDRD9.

Subcellular Location:

Nucleus. Cytoplasm. Note=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.

Tissue Specificity:

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

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.

Similarity:

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

Contains 1 Piwi domain.

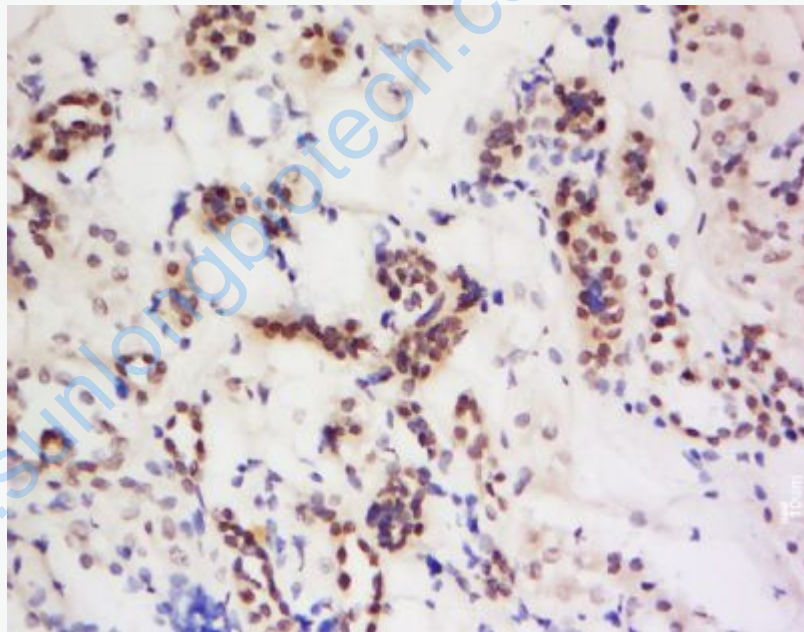
SWISS:
Q7Z3Z4

Gene ID:
143689

Database links:
UniProtKB/Swiss-Prot: Q7Z3Z4.2

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Tissue/cell: human kidney tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-PIWIL4 Polyclonal Antibody, Unconjugated(SL6853R) 1:200,

	overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining
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