

PIWI-L3 Antibody

Catalog # ASC11228

Product Information

Application	WB, IF, E
Primary Accession	Q7Z3Z3
Other Accession	NP_001008496 , 153792298
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	101089
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	PIWI-L3 antibody can be used for detection of PIWI-L3 by Western blot at 1 µg/mL. Antibody can also be used for immunofluorescence starting at 20 µg/mL. For immunofluorescence start at 20 µg/mL.

Additional Information

Gene ID	440822
Other Names	Piwi-like protein 3, PIWIL3
Target/Specificity	PIWIL3;
Reconstitution & Storage	PIWI-L3 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	PIWI-L3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PIWIL3
Function	May play a role during spermatogenesis by repressing transposable elements and preventing 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. Besides their function in transposable elements repression, piRNAs are probably involved in other processes during meiosis such as translation

regulation (By similarity).

Cellular Location

Cytoplasm. Note=Probable component of the meiotic nuage, also named P granule, a germ-cell-specific organelle required to repress transposon activity during meiosis {ECO:0000250|UniProtKB:Q9JMB7}

Tissue Location

Expressed in testis..

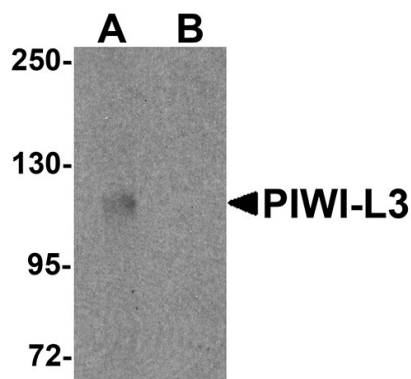
Background

PIWI-L3 Antibody: PIWI-L3 is a member of the PIWI subfamily of Argonaute proteins, evolutionarily conserved proteins containing both PAZ and Piwi motifs that are crucial for the biogenesis and function of small non-coding RNAs and play important roles in stem cell self-renewal, RNA silencing, and translational regulation in diverse organisms. Recent studies have shown that overexpression of PIWI-L3 (as well as other PIWI-like proteins) are potential biomarkers for astrocytic glioma, meningioma, and other cancers.

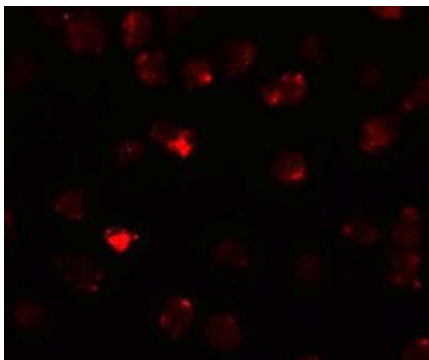
References

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Thomson T and Lin H. The biogenesis and function PIWI proteins and piRNAs: progress and prospect. *Annu. Rev. Cell Dev. Biol.*2009; 25:355-76.
Wang XL, Chen XM, Gao HJ, et al. Preparation and distribution of polyclonal antibodies against human PIWIL3 protein in tumor tissues. *Xi Bao Yu Fen Zi Mian Yi Xue Za Zhi* 2008; 24:714-6.
Li L, Yu C, Gao H, et al. Argonaute proteins: potential biomarkers for human colon cancer. *BMC Cancer*2010; 10:38.

Images



Western blot analysis of PIWI-L3 in 3T3 cell lysate with PIWI-L3 antibody at 1 µg/mL in (A) the absence and (B) the presence of blocking peptide.



Immunofluorescence of PIWI-L3 in 3T3 cells with PIWI-L3 antibody at 20 µg/mL.