

ARG40570 anti-PIWIL2 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes PIWIL2
Tested Reactivity	Hu
Tested Application	ICC/IF, WB
Specificity	At least three isoforms of PIWIL2 are known to exist; this antibody will only detect the two longest isoforms. The antibody is predicted to not cross-react with other PIWI protein family members.
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	PIWIL2
Species	Human
Immunogen	Synthetic peptide around 17 aa (Center) of Human PIWI-L2.
Conjugation	Un-conjugated
Alternate Names	PIWIL1L; Piwi-like protein 2; HILL; CT80; mili; Cancer/testis antigen 80

Application Instructions

Application table	Application	Dilution
	ICC/IF	2 - 5 µg/ml
	WB	1 µg/ml
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	HepG2	

Properties

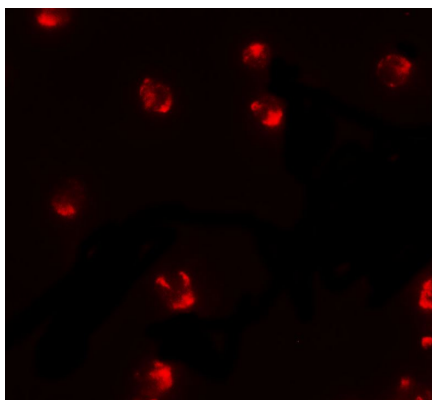
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS and 0.02% Sodium azide.
Preservative	0.02% Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

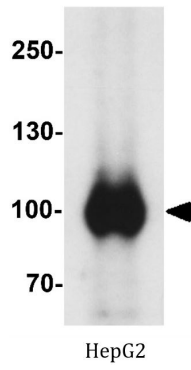
Gene Symbol	PIWIL2
Gene Full Name	piwi-like RNA-mediated gene silencing 2
Background	PIWIL2 belongs to the Argonaute family of proteins, which function in development and maintenance of germline stem cells (Sasaki et al., 2003 [PubMed 12906857]).[supplied by OMIM, Mar 2008]
Function	Plays a central role during spermatogenesis by repressing transposable elements and preventing 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 in 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 governs 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 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. 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 (By similarity). [UniProt]
Calculated Mw	110 kDa
PTM	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. [UniProt]
Cellular Localization	Cytoplasm. Note=Present in chromatoid body. Probable component of the meiotic nuage, also named P granule, a germ-cell-specific organelle required to repress transposon activity during meiosis. [UniProt]

Images



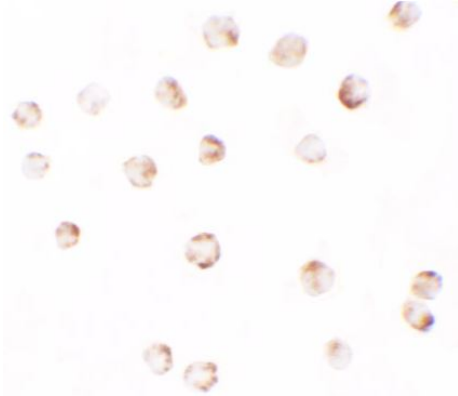
ARG40570 anti-PIWIL2 antibody ICC/IF image

Immunofluorescence: HepG2 cells stained with ARG40570 anti-PIWIL2 antibody at 5 µg/ml dilution.



ARG40570 anti-PIWIL2 antibody WB image

Western blot: HepG2 cell lysate stained with ARG40570 anti-PIWIL2 antibody at 1 μ g/ml dilution.



ARG40570 anti-PIWIL2 antibody ICC/IF image

Immunocytochemistry: HepG2 cells stained with ARG40570 anti-PIWIL2 antibody at 2.5 μ g/ml dilution.