

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human PIWIL1/Hiwi in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) PIWIL2 or rhPIWIL4 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 585509
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human PIWIL1/Hiwi Arg82-Thr290 Accession # NP_004755
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

Immunocytochemistry Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Hiwi (human homolog of drosophila piwi), also called PIWIL1 (piwi-like 1) is an 861 amino acid, 99 kDa (predicted) cytoplasmic protein of the PIWI subgroup of the Argonaute family. PIWI domains bind a class of ~29-30 nucleotide RNAs termed piRNAs (piwi domain-binding RNAs). PIWIL1 orthologs are expressed with piRNAs in germ cells and are essential for spermatogenesis in mice. CD34⁺ hematopoietic progenitor cell PIWIL1 is downregulated upon differentiation. When overexpressed in leukemic cell lines, PIWIL1 inhibits growth and induces apoptosis. Human PIWIL1 shares 95% amino acid sequence identity with mouse and rat PIWIL1.

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