

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human PIWIL1/HIWI in direct ELISAs.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human PIWIL1/HIWI Arg82-Thr290 Accession # Q96J94
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 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.

Immunohistochemistry 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

PIWI (P-element-induced wimpy testis; also HIWI and PIWIL1) is a 92-98 kDa member of the Piwi subfamily, Argonaute family of proteins. It is expressed in germline cells, particularly spermatocytes and spermatids, and also appears in CD34+ hematopoietic stem cells plus select tumor types. PIWI binds to a series of 28-34 nucleic acid long noncoding RNAs that participate in gametogenesis. It does so under the influence of Arg methyltransferases, and in conjunction with Tudor-containing proteins. Human PIWI/PIWIL1 is 861 amino acids (aa) in length. It contains a methylation target region in the N-terminus, followed by an RNA-binding PAZ domain (aa 277-391) and an RNA-cleaving PIWI domain (aa 555-847). There are two isoform variants. One is widely expressed and shows a three aa substitution for aa 1-89. The second contains a six aa substitution for aa 824-861. Over aa 82-290, human PIWI (HIWI) shares 95% aa sequence identity with mouse PIWI (MIWI).

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