

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
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

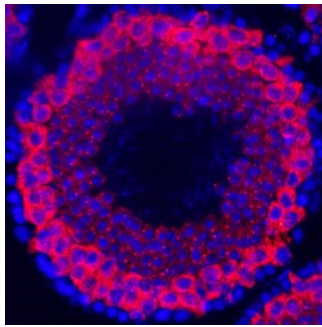
APPLICATIONS

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.

	Recommended Concentration	Sample
Immunohistochemistry	5-15 µg/mL	See Below

DATA

Immunohistochemistry



PIWIL1/HIWI in Mouse Testes.

PIWIL1/HIWI was detected in perfusion fixed frozen sections of mouse testes using Goat Anti-Human PIWIL1/HIWI Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6548) at 1.7 µg/mL overnight at 4 °C. Tissue was stained using the Northern-Lights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to the cytoplasm of spermatocytes. View our protocol for [Fluorescent IHC Staining of Frozen Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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).