

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	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.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 585509
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human PIWIL1/HIWI Arg82-Thr290 Accession # NP_004755
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

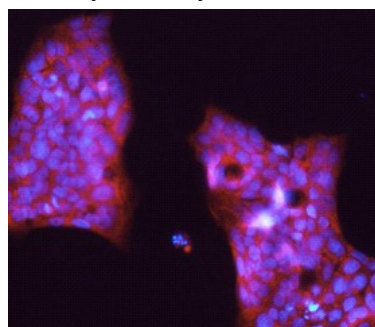
## APPLICATIONS

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below

## DATA

### Immunocytochemistry



**PIWIL1/HIWI in NCI-N87 Human Cell Line.**  
PIWIL1/HIWI was detected in immersion fixed NCI-N87 human gastric carcinoma cell line using Mouse Anti-Human PIWIL1/HIWI Monoclonal Antibody (Catalog # MAB6548) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to the cytoplasm in colonies of NCI-N87 cells. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## 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<sup>+</sup> 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.