

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human PIWIL4 in direct ELISAs. In this format, no cross-reactivity with recombinant human (rh) PIWIL2 is observed.
Source	Monoclonal Mouse IgG _{2A} Clone # 626001
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human PIWIL4 Ser102-Gln237 Accession # Q7Z3Z4
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.

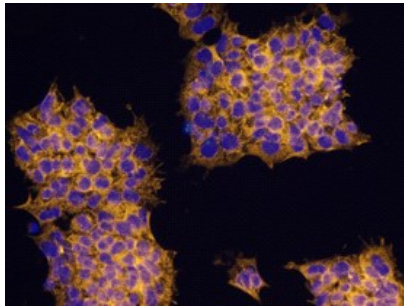
APPLICATIONS

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
Immunocytochemistry	8-25 µg/mL	See Below

DATA

Immunocytochemistry



PIWIL4 in BG01V Human Stem Cells. PIWIL4 was detected in immersion fixed BG01V human embryonic stem cells using Human PIWIL4 Monoclonal Antibody (Catalog # MAB6316) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (yellow; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 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-like protein 4 (PIWIL4) is a 97 kDa member of the argonaute family of proteins and the PIWI subfamily. Human PIWIL4 is 852 amino acids (aa) in length and contains one PAZ domain (aa 268-384) and one PIWI domain (aa 546-838). There are three isoforms for human PIWIL4. Isoform 1 is the standard protein. Isoform 2 has a two aa substitution for aa 1-29 in isoform 1 and a deletion of aa 523-852. Isoform 3 has a deletion of aa 1-69 and a deletion of aa 523-852. Human PIWIL4 shares 77% aa sequence identity with mouse and rat PIWIL4. PIWIL4 plays a central role in spermatogenesis.