Human/Rat PIWIL2 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF6558

DESCRIPTION

Species Reactivity	Human/Rat
Specificity	Detects human PIWIL2 in direct ELISAs and human and rat PIWIL2 in Western blots. In direct ELISAs, less than 4% cross-reactivity with recombinant human PIWIL4 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human PIWIL2 Lys216-Asp379 Accession # Q8TC59
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.

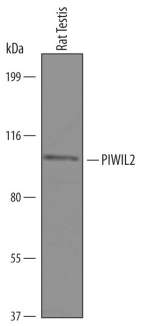
APPLICATIONS

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
Western Blot	1 µg/mL	See Below

DATA

Western Blot



Detection of Rat PIWIL2 by Western Blot. Western blot shows lysates of rat testis tissue. PVDF Membrane was probed with 1 µg/mL of Human PIWIL2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6558) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for PIWIL2 at approximately 105 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

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.** ● 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

PIWIL2 (PIWI [P-element-induced wimpy testis]-like 2; also HILI) is a 100-110 kDa cytosolic member of the PIWI subfamily, Argonaute family of proteins. It is expressed in the germ line, particularly in premeiotic and early meiotic germ cells, plus mesenchymal stem cells, and in select cancer stem cells such as $CD44^{+}CD24^{-}$ breast cancer cells. PIWIL2 likely silences mobile genetic elements in germ cells, and appears to depress stem cell proliferation by inhibiting the expression of cell cycle genes. Human PIWIL2 is 973 amino acids (aa) in length. It contains one PAZ domain (aa 384-496) and a C-terminal PIWI domain (aa 668-959) that interact with RNA. There are multiple methylation sites on arginines. Two potential splice forms are reported, one that shows a deletion of aa 887-922, and a second that contains a 12 aa substitution for aa 486-801. Over aa 216-379, human PIWIL2 shares 96% aa identity with rat PIWIL2.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956