**BACKGROUND**

The PIWI family is an evolutionarily conserved gene family that plays an essential role in stem cell self-renewal, gametogenesis and RNA interference in diverse organisms. HIWI, a human member of the PIWI gene family, maps to the long arm of chromosome 12, band 12q24.33, a genomic region that displays genetic linkage to the development of testicular germ cell tumors of adolescents and adults. HIWI encodes a 3.6 kb mRNA that is expressed abundantly in the adult testis and encodes a highly basic 861 amino acid protein that shares significant homology throughout its entire length with other members of the PIWI family proteins in *Drosophila*, *C. elegans* and mammals. In normal human testis, HIWI is specifically expressed in germ line cells, with its expression detectable in spermatocytes and round spermatids during spermatogenesis. HIWI is also present in human CD34+ hematopoietic progenitor cells, but not in more differentiated cell populations. *Drosophila* PIWI gene is required for the asymmetric division of GSCs to produce and maintain a daughter GSC, but is not essential for the further differentiation of the committed daughter cell.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: PIWIL1 (human) mapping to 12q24.33; Piwil1 (mouse) mapping to 5 G1.3.

**SOURCE**

HIWI (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of HIWI of human origin.

**PRODUCT**

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-22685 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

**STORAGE**

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

HIWI (N-17) is recommended for detection of HIWI of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50:1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30:1:3000).

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-204B. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**PROTOCOLS**

See our web site at www.scbt.com or our catalog for detailed protocols and support products.