bs-6853R

[Primary Antibody]

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PIWIL4 Rabbit pAb

DATASHEET -

Host: Rabbit Isotype: IgG

Clonality: Polyclonal

GenelD: 143689 **SWISS:** Q7Z3Z4

Target: PIWIL4

Immunogen: KLH conjugated synthetic peptide derived from human PIWIL4:

751-852/852.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50%

Glycerol.

Shipped at 4°C. Store at -20°C for one year. Avoid repeated

freeze/thaw cycles.

Background: PIWIL4 belongs to the Argonaute family of proteins, which function in development and maintenance of germline stem cells. Plays a central role during spermatogenesis by repressing transposable elements and prevent their mobilization, which is essential for the germline integrity. Acts via the piRNA metabolic process, which mediates the repression of transposable elements during meiosis by forming complexes composed of piRNAs and Piwi proteins and govern the methylation and subsequent repression of transposons. Directly binds piRNAs, a class of 24 to 30 nucleotide RNAs that are generated by a Dicer-independent mechanism and are primarily derived from transposons and other repeated sequence elements. Associates with secondary piRNAs antisense and PIWIL2/MILI is required for such association. The piRNA process acts upstream of known mediators of DNA methylation. Participates to a piRNA amplification loop. Besides their function in transposable elements repression, piRNAs are probably involved in other processes during meiosis such as translation regulation. May be involved in the chromatin-modifying pathway by inducing 'Lys-9' methylation of histone H3 at some loci.

Applications: IHC-P (1:100-500)

IHC-F (1:100-500) **IF** (1:100-500)

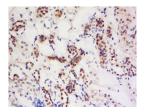
Reactivity: Human (predicted: Mouse,

Rat, Rabbit, Sheep, Cow, Dog, Horse, Monkey)

Predicted 94 kDa MW.:

Subcellular Cytoplasm ,Nucleus

VALIDATION IMAGES



Tissue/cell: human kidney tissue: 4% Paraformaldehyde-fixed and paraffinembedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Incubation: Anti-PIWIL4 Polyclonal Antibody, Unconjugated(bs-6853R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

— SELECTED CITATIONS —

egenerative Cervical Myelopathy. ADV SCI. 2025 Aug;:e04246 WB; Mouse. 40820968						