

RNF141 (J-23): sc-101119



The Power to Question

BACKGROUND

The RING-type zinc finger motif is present in a number of viral and eukaryotic proteins and is made of a conserved cysteine-rich domain that is able to bind two zinc atoms. Proteins that contain this conserved domain are generally involved in the ubiquitination pathway of protein degradation. RNF141 (ring finger protein 141), also known as ZFP26 or ZNF230, is a 230 amino acid protein that contains one RING-type zinc finger. Expressed as two isoforms (isoform 1 and isoform 2) due to alternative splicing events, RNF141 is thought to function as a transcription factor during spermatogenesis. While isoform 2 is expressed in brain, heart, pancreas, kidney and skeletal muscle, isoform 1 is expressed primarily in testis, suggesting that isoform 1 functions during spermatogenesis. In addition, RNF141 is not expressed in azoospermic (infertile) men, further implicating an important role for RNF141 in testis development and male fertility.

REFERENCES

- Borden, K.L. and Freemont, P.S. 1996. The RING finger domain: a recent example of a sequence-structure family. *Curr. Opin. Struct. Biol.* 6: 395-401.
- Lorick, K.L., et al. 1999. RING fingers mediate ubiquitin-conjugating enzyme E2-dependent ubiquitination. *Proc. Natl. Acad. Sci. USA* 96: 11364-11369.
- Zhang, S., et al. 2001. The shorter zinc finger protein ZNF230 gene message is transcribed in fertile male testes and may be related to human spermatogenesis. *Biochem. J.* 359: 721-727.
- Qiu, W., et al. 2003. Molecular cloning and characterization of a mouse spermatogenesis-related ring finger gene *Znf230*. *Biochem. Biophys. Res. Commun.* 306: 347-353.
- Xu, W.M., et al. 2004. Construction of recombinant ZNF230/GFP fused plasmids and their expression and cellular localization. *Yi Chuan* 26: 451-454.
- Dong, J.T., et al. 2005. Screening for ZNF230 gene mutation and analysis of its correlation with azoospermia. *Zhonghua Yi Xue Yi Chuan Xue Za Zhi* 22: 258-260.
- Rossi, P., et al. 2008. Transcriptome analysis of differentiating spermatogonia stimulated with kit ligand. *Gene Expr. Patterns* 8: 58-70.

CHROMOSOMAL LOCATION

Genetic locus: RNF141 (human) mapping to 11p15.4; Rnf141 (mouse) mapping to 7 F1.

SOURCE

RNF141 (J-23) is a mouse monoclonal antibody raised against recombinant RNF141 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

RNF141 (J-23) is recommended for detection of RNF141 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for RNF141 siRNA (h): sc-76413, RNF141 siRNA (m): sc-76414, RNF141 shRNA Plasmid (h): sc-76413-SH, RNF141 shRNA Plasmid (m): sc-76414-SH, RNF141 shRNA (h) Lentiviral Particles: sc-76413-V and RNF141 shRNA (m) Lentiviral Particles: sc-76414-V.

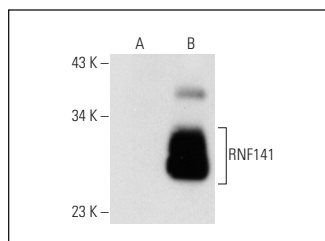
Molecular Weight of RNF141: 26 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201 or RNF141 (h): 293 Lysate: sc-113125.

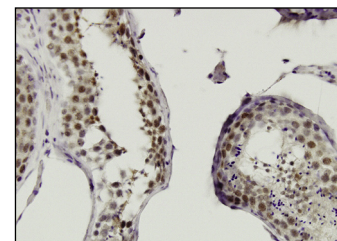
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



RNF141 (J-23): sc-101119. Western blot analysis of RNF141 expression in non-transfected: sc-110760 (A) and human RNF141 transfected: sc-113125 (B) 293 whole cell lysates.



RNF141 (J-23): sc-101119. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human testis tissue showing nuclear localization.

STORAGE

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

PROTOCOLS

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