

RNF181 (F-2): sc-376343

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. RNF181 (RING finger protein 181) is a 153 amino acid protein that contains one RING-type zinc finger and belongs to the RNF181 family. RNF181 is auto-ubiquitinated as part of the enzymatic reaction, and upon DNA damage, RNF181 is phosphorylated by ATM or ATR. RNF181 demonstrates highest levels of expression in liver and heart, moderate levels in placenta, lung, liver, kidney, pancreas, and lower levels in brain and skeletal muscle. The RNF181 gene is conserved in chimpanzee, canine, bovine, mouse, rat, zebrafish and fruit fly, and maps to human chromosome 2p11.2.

REFERENCES

1. Borden, K.L., et al. 1996. The RING finger domain: a recent example of a sequence-structure family. *Curr. Opin. Struct. Biol.* 6: 395-401.
2. Lorick, K.L., et al. 1999. RING fingers mediate ubiquitin-conjugating enzyme (E2)-dependent ubiquitination. *Proc. Natl. Acad. Sci. USA* 96: 11364-11369.
3. Zhang, Q.H., et al. 2000. Cloning and functional analysis of cDNAs with open reading frames for 300 previously undefined genes expressed in CD34⁺ hematopoietic stem/progenitor cells. *Genome Res.* 10: 1546-1560.

CHROMOSOMAL LOCATION

Genetic locus: RNF181 (human) mapping to 2p11.2; Rnf181 (mouse) mapping to 6 C1.

SOURCE

RNF181 (F-2) is a mouse monoclonal antibody raised against amino acids 1-83 mapping at the N-terminus of RNF181 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-376343 X, 200 µg/0.1 ml.

RNF181 (F-2) is available conjugated to agarose (sc-376343 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376343 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376343 PE), fluorescein (sc-376343 FITC), Alexa Fluor[®] 488 (sc-376343 AF488), Alexa Fluor[®] 546 (sc-376343 AF546), Alexa Fluor[®] 594 (sc-376343 AF594) or Alexa Fluor[®] 647 (sc-376343 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-376343 AF680) or Alexa Fluor[®] 790 (sc-376343 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

RNF181 (F-2) is recommended for detection of RNF181 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 RNF181 siRNA (h): sc-94487, RNF181 siRNA (m): sc-153028, RNF181 shRNA Plasmid (h): sc-94487-SH, RNF181 shRNA Plasmid (m): sc-153028-SH, RNF181 shRNA (h) Lentiviral Particles: sc-94487-V and RNF181 shRNA (m) Lentiviral Particles: sc-153028-V.

RNF181 (F-2) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

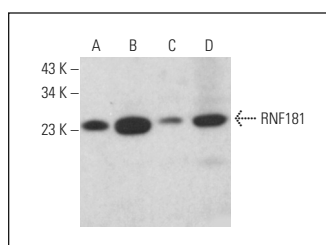
Molecular Weight of RNF181: 18 kDa.

Positive Controls: WI-38 whole cell lysate: sc-364260, NIH/3T3 whole cell lysate: sc-2210 or c4 whole cell lysate: sc-364186.

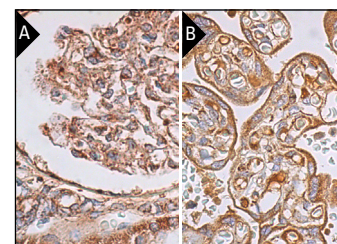
RECOMMENDED SUPPORT REAGENTS

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



RNF181 (F-2): sc-376343. Western blot analysis of RNF181 expression in WI-38 (A), NIH/3T3 (B) and c4 (C) whole cell lysates and rat liver tissue extract (D).



RNF181 (F-2): sc-376343. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in glomeruli and cells in tubules (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of trophoblastic cells (B).

RESEARCH USE

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