

ZNF313 (SM-3): sc-101116

BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. ZNF313 (zinc finger protein 313), also known as RNF114 (RING finger protein 114) or ZNF228, is a 228 amino acid protein that contains one RING-type zinc finger (a domain that can bind two zinc atoms and is involved in the ubiquitination pathway) and is expressed abundantly in mature testis. Existing as two isoforms due to alternative splicing events, ZNF313 is thought to play a role in spermatogenesis and male fertility. In addition, the gene encoding ZNF313 may be associated with an increased susceptibility to psoriasis, an immune-mediated skin disease characterized by red, scaly patches on the epidermis.

REFERENCES

1. Rousseau-Merck, M.F., et al. 1993. Chromosomal localization of 9 KOX zinc finger genes: physical linkages suggest clustering of KOX genes on chromosomes 12, 16, and 19. *Hum. Genet.* 92: 583-587.
2. Sun, Y., et al. 2003. The KRAB domain of zinc finger gene ZNF268: a potential transcriptional repressor. *IUBMB Life* 55: 127-131.
3. Ma, Y.X., et al. 2003. Identification of a novel human zinc finger protein gene ZNF313. *Sheng Wu Hua Xue Yu Sheng Wu Wu Li Xue Bao* 35: 230-237.

CHROMOSOMAL LOCATION

Genetic locus: RNF114 (human) mapping to 20q13.13; Rnf114 (mouse) mapping to 2 H3.

SOURCE

ZNF313 (SM-3) is a mouse monoclonal antibody raised against recombinant ZNF313 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.

APPLICATIONS

ZNF313 (SM-3) is recommended for detection of ZNF313 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 ZNF313 siRNA (h): sc-76977, ZNF313 siRNA (m): sc-155684, ZNF313 shRNA Plasmid (h): sc-76977-SH, ZNF313 shRNA Plasmid (m): sc-155684-SH, ZNF313 shRNA (h) Lentiviral Particles: sc-76977-V and ZNF313 shRNA (m) Lentiviral Particles: sc-155684-V.

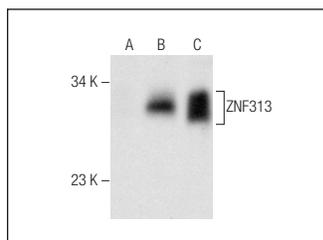
Molecular Weight of ZNF313: 26 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A2058 whole cell lysate: sc-364178 or ZNF313 (m): 293T Lysate: sc-127822.

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



ZNF313 (SM-3): sc-101116. Western blot analysis of ZNF313 expression in non-transfected 293T: sc-117752 (A), mouse ZNF313 transfected 293T: sc-127822 (B) and A2058 (C) whole cell lysates.



ZNF313 (SM-3): sc-101116. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lateral ventricle wall tissue showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Han, J., et al. 2013. ZNF313 is a novel cell cycle activator with an E3 ligase activity inhibiting cellular senescence by destabilizing p21^{WAF1}. *Cell Death Differ.* 20: 1055-1067.
2. Huang, S., et al. 2019. The UbL-UBA Ubiquilin4 protein functions as a tumor suppressor in gastric cancer by p53-dependent and p53-independent regulation of p21. *Cell Death Differ.* 26: 516-530.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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