

# ZNF146 (N-15): sc-249465

## 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. The majority of zinc-finger proteins contain a Krüppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. ZNF146 (zinc finger protein 146), also known as OZF (only zinc finger protein), is a 292 amino acid nuclear protein that binds DNA and belongs to the Krüppel C<sub>2</sub>H<sub>2</sub>-type zinc-finger protein family. ZNF146 interacts with UBC9 (ubiquitin carrier protein 9) and RAP1 (repressor/activator protein 1 homolog), and is highly expressed in multiple pancreatic and colorectal cancers. Lower levels of expression have been observed in kidney, lung, placenta and brain. Containing ten C<sub>2</sub>H<sub>2</sub>-type zinc fingers, ZNF146 is encoded by a gene that maps to human chromosome 19q13.12.

## REFERENCES

1. Le Chalony, C., et al. 1994. The OZF gene encodes a protein consisting essentially of zinc finger motifs. *J. Mol. Biol.* 236: 399-404.
2. Ferbus, D., Le et al. 1996. Identification, nuclear localization, and binding activities of OZF, a human protein solely composed of zinc-finger motifs. *Eur. J. Biochem.* 236: 991-995.
3. Ferbus, D., et al. 1999. Amplification and over-expression of OZF, a gene encoding a zinc finger protein, in human pancreatic carcinomas. *Int. J. Cancer* 80: 369-372.
4. Pibouin, L., et al. 2001. Genomic organization and promoter identification of ZNF146, a gene encoding a protein consisting solely of zinc finger domains. *Cytogenet. Cell Genet.* 92: 80-84.
5. Ferbus, D., et al. 2003. The zinc finger protein OZF (ZNF146) is overexpressed in colorectal cancer. *J. Pathol.* 200: 177-182.
6. Antoine, K., et al. 2005. Zinc finger protein overexpressed in colon carcinoma interacts with the telomeric protein hRap1. *J. Cell. Biochem.* 95: 763-768.
7. Antoine, K., et al. 2005. A Krüppel zinc finger of ZNF 146 interacts with the SUMO-1 conjugating enzyme UBC9 and is sumoylated *in vivo*. *Mol. Cell. Biochem.* 271: 215-223.
8. Filion, G.J., et al. 2006. A family of human zinc finger proteins that bind methylated DNA and repress transcription. *Mol. Cell. Biol.* 26: 169-181.
9. Tian, C.Y., et al. 2006. Progress in the study of KRAB zinc finger protein. *Yi Chuan* 28: 1451-1456.

## CHROMOSOMAL LOCATION

Genetic locus: ZNF146 (human) mapping to 19q13.12.

## SOURCE

ZNF146 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of ZNF146 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-249465 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ZNF146 (N-15) is recommended for detection of ZNF146 of 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).

ZNF146 (N-15) is also recommended for detection of ZNF146 in additional species, including bovine and porcine.

Suitable for use as control antibody for ZNF146 siRNA (h): sc-97164, ZNF146 shRNA Plasmid (h): sc-97164-SH and ZNF146 shRNA (h) Lentiviral Particles: sc-97164-V.

Molecular Weight of ZNF146: 33 kDa.

## 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-2048. 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.