

ZNF446 (D-14): sc-132541



The Power to Question

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. As a member of the Krüppel C₂H₂-type zinc finger protein family, ZNF446 (zinc finger protein 446), also known as Zinc finger and SCAN domain-containing protein 20 (ZKSCAN20), is a 450 amino acid transcriptional regulator. ZNF446 localizes to the nucleus and is expressed in a variety of human adult tissues with the highest expression level in muscle. ZNF446 contains three C₂H₂-type zinc fingers, a SCAN domain and a KRAB domain. ZNF446 functions as a transcriptional repressor for SRE (serum response element) and c-Jun transcription factors and may play a critical role in cell growth and proliferation signaling pathways.

REFERENCES

1. Payre, F. and Vincent, A. 1988. Finger proteins and DNA-specific recognition: distinct patterns of conserved amino acids suggest different evolutionary modes. *FEBS Lett.* 234: 245-250.
2. Berg, J.M. 1988. Proposed structure for the zinc-binding domains from transcription factor IIIA and related proteins. *Proc. Natl. Acad. Sci. USA* 85: 99-102.
3. Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. *New Biol.* 2: 363-374.
4. Rosenfeld, R. and Margalit, H. 1993. Zinc fingers: conserved properties that can distinguish between spurious and actual DNA-binding motifs. *J. Biomol. Struct. Dyn.* 11: 557-570.
5. Abrink, M., Aveskogh, M. and Hellman, L. 1995. Isolation of cDNA clones for 42 different Krüppel-related zinc finger proteins expressed in the human monoblast cell line U-937. *DNA Cell Biol.* 14: 125-136.
6. Durand, S., Abadie, P., Angeletti, S. and Genti-Raimondi, S. 2003. Identification of multiple differentially expressed messenger RNAs in normal and pathological trophoblast. *Placenta* 24: 209-218.
7. Brayer, K.J., Kulshreshtha, S. and Segal, D.J. 2008. The protein-binding potential of C₂H₂ zinc finger domains. *Cell Biochem. Biophys.* 51: 9-19.
8. Tadepally, H.D., Burger, G. and Aubry, M. 2008. Evolution of C₂H₂ zinc finger genes and subfamilies in mammals: species-specific duplication and loss of clusters, genes and effector domains. *BMC Evol. Biol.* 8: 176.
9. Liu, J. and Stormo, G.D. 2008. Context-dependent DNA recognition code for C₂H₂ zinc finger transcription factors. *Bioinformatics* 24: 1850-1857.

CHROMOSOMAL LOCATION

Genetic locus: Zfp446 (mouse) mapping to 7 A1.

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.

SOURCE

ZNF446 (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ZNF446 of mouse 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-132541 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ZNF446 (D-14) is recommended for detection of ZNF446 of mouse and rat 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); non cross-reactive with other ZNF family members.

Suitable for use as control antibody for ZNF446 siRNA (m): sc-155721, ZNF446 shRNA Plasmid (m): sc-155721-SH and ZNF446 shRNA (m) Lentiviral Particles: sc-155721-V.

Molecular Weight of ZNF446: 49 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.

PROTOCOLS

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