SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF444 (P-13): sc-132964

SANTA CRUZ BIOTECHNOLOGY

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 C_2H_2-type zinc-finger protein family, ZNF444 (zinc finger protein 444), also known as EZF2 or zinc finger and SCAN domain-containing protein 17 (ZSCAN17), is a 327 amino acid transcriptional regulator. ZNF444 localizes to the nucleus and contains four C_2H_2-type zinc fingers and one SCAN domain. The SCAN domain is a highly conserved motif that is found near the N-terminus of a subfamily of C_2H_2 zinc finger proteins. The SCAN domain helps to mediate self-association or selective association with other proteins bearing the SCAN domain. Two isoforms of ZNF444 exist due to alternative splicing events.

REFERENCES

1. Payre, F., et al. 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., et al. 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., et al. 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. Edelstein, L.C., et al. 2005. The SCAN domain family of zinc finger transcription factors. Gene 359: 1-17.
7. Tian, C.Y., et al. 2006. Progress in the study of KRAB zinc finger protein. Yi Chuan 28: 1451-1456.
8. Yang, L., et al. 2008. The previously undescribed ZKSCAN3 (ZNF306) is a novel "driver" of colorectal cancer progression. Cancer Res. 68: 4321-4330.
9. Liu, J., et al. 2008. Context-dependent DNA recognition code for C_2H_2 zinc-finger transcription factors. Bioinformatics 24: 1850-1857.

CHROMOSOMAL LOCATION

Genetic locus: ZNF444 (human) mapping to 19q13.43; Zfp444 (mouse) mapping to 7 A1.

SOURCE

ZNF444 (P-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ZNF444 of human origin.

STORAGE

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

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-132964 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ZNF444 (P-13) is recommended for detection of ZNF444 isoforms 1 and 2 of mouse, rat and 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); non cross-reactive with other ZNF family members.

ZNF444 (P-13) is also recommended for detection of ZNF444 isoforms 1 and 2 in additional species, including canine.

Suitable for use as control antibody for ZNF444 siRNA (h): sc-97099, ZNF444 siRNA (m): sc-155719, ZNF444 shRNA Plasmid (h): sc-97099-SH, ZNF444 shRNA Plasmid (m): sc-155719-SH, ZNF444 shRNA (h) Lentiviral Particles: sc-97099-V and ZNF444 shRNA (m) Lentiviral Particles: sc-155719-V.

Molecular Weight of ZNF444: 35 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.

RESEARCH USE

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

PROTOCOLS

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