

ZNF445 (S-13): sc-99736

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. As a member of the Krüppel C₂H₂-type zinc-finger protein family, ZNF445 (zinc finger protein 445), also known as ZNF168 (zinc finger protein 168) and ZKSCAN15 (zinc finger protein with KRAB and SCAN domains 15), is a 1031 amino acid nuclear protein that contains one KRAB domain, one SCAN box domain and 14 C₂H₂-type zinc fingers. ZNF445 is highly expressed in adult skeletal muscle and testis, while expressed at lower levels in small intestine, pancreas, colon, thymus, uterus and peripheral blood leukocytes. Overexpression of ZNF445 results in the activation of c-Jun and serum response element, suggesting a potential role in the MAPK signaling pathway.

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. 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.
3. Mark, C., et al. 1999. Comparative analysis of KRAB zinc finger proteins in rodents and man: evidence for several evolutionarily distinct subfamilies of KRAB zinc finger genes. *DNA Cell Biol.* 18: 381-396.
4. Sander, T.L., et al. 2003. The SCAN domain defines a large family of zinc finger transcription factors. *Gene* 310: 29-38.
5. Urrutia, R. 2003. KRAB-containing zinc-finger repressor proteins. *Genome Biol.* 4: 231.
6. Edelstein, L.C., et al. 2005. The SCAN domain family of zinc finger transcription factors. *Gene* 359: 1-17.
7. Luo, K., et al. 2006. Activation of transcriptional activities of AP1 and SRE by a novel zinc finger protein ZNF445. *Gene* 367: 89-100.

CHROMOSOMAL LOCATION

Genetic locus: ZNF445 (human) mapping to 3p21.32.

SOURCE

ZNF445 (S-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of ZNF445 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-99736 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ZNF445 (S-13) is recommended for detection of ZNF445 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); non cross-reactive with other ZNF family members.

Suitable for use as control antibody for ZNF445 siRNA (h): sc-78037, ZNF445 shRNA Plasmid (h): sc-78037-SH and ZNF445 shRNA (h) Lentiviral Particles: sc-78037-V.

Molecular Weight of ZNF445: 119 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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 or our catalog for detailed protocols and support products.