SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF45 (Z-23): sc-134193



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. 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 krueppel C_2H_2 -type zinc-finger protein family, ZNF45 (zinc finger protein 45), also known as BRC1744, Zinc finger protein 13 and Zinc finger protein KOX5, is a 682 amino acid nuclear protein that contains one KRAB domain and eighteen C_2H_2 -type zinc fingers. ZNF45 is expressed in many tissues including pancreas, colon small intestine, heart, brain, testis, ovary, prostate, skeletal muscle, placenta, thymus, blood leukocytes and spleen.

REFERENCES

- Constantinou-Deltas, C.D., et al. 1992. The identification and characterization of KRAB-domain-containing zinc finger proteins. Genomics 12: 581-589.
- Constantinou Deltas, C., et al. 1996. Complete coding sequence, exon/intron arrangement and chromosome location of ZNF45, a KRABdomain-containing gene. Cytogenet. Cell Genet. 75: 230-233.
- 3. Shannon, M., et al. 1998. Tandem zinc-finger gene families in mammals: insights and unanswered questions. DNA Seq. 8: 303-315.
- 4. Shannon, M. and Stubbs, L. 1998. Analysis of homologous XRCC1-linked zinc-finger gene families in human and mouse: evidence for orthologous genes. Genomics 49: 112-121.
- 5. Tang, M., et al. 2002. Zinc finger gene clusters and tandem gene duplication. J. Comput. Biol. 9: 429-446.
- Hall, T.M. 2005. Multiple modes of RNA recognition by zinc finger proteins. Curr. Opin. Struct. Biol. 15: 367-373.
- 7. Trivedi, A.K., et al. 2007. Proteomic identification of C/EBP-DBD multiprotein complex: JNK1 activates stem cell regulator C/EBP α by inhibiting its ubiquitination. Oncogene 26: 1789-1801.
- 8. Bonetti, A., et al. 2009. A follow-up study of chromosome 19q13 in multiple sclerosis susceptibility. J. Neuroimmunol. 208: 119-124.
- 9. Online Mendelian Inheritance in Man, OMIM™. 2010. Johns Hopkins University, Baltimore, MD. MIM Number: 194554. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: ZNF45 (human) mapping to 19q13.31.

SOURCE

ZNF45 (Z-23) is an affinity purified rabbit polyclonal antibody raised against synthetic ZNF45 peptide 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 50 μg lgG in 500 μl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

ZNF45 (Z-23) is recommended for detection of ZNF45 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ZNF45 siRNA (h): sc-97422, ZNF45 shRNA Plasmid (h): sc-97422-SH and ZNF45 shRNA (h) Lentiviral Particles: sc-97422-V.

Molecular Weight of ZNF45: 78 kDa.

Positive Controls: human fetal lung tissue.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



ZNF45 (Z-23): sc-134193. Western blot analysis of ZNF45 expression in human fetal lung tissue extract

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.