SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF551 (A-24): sc-134199



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. ZNF551 (zinc finger protein 551), also known as KOX23 (zinc finger protein KOX23), is a 670 amino acid nuclear protein that belongs to the Krüppel C_2H_2 -type zinc-finger protein family and is likely involved in transcriptional regulation. Existing as three alternatively spliced isoforms, ZNF551 contains fourteen C_2H_2 -type zinc fingers and a single KRAB domain. The gene encoding ZNF551 maps to human chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is the genetic home for a number of immunoglobulin (lg) superfamily members, a number of ICAMs, the CEACAM and PSG family and Fc receptors (FcRs).

REFERENCES

- 1. Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. New Biol. 2: 363-374.
- Teglund, S., et al. 1994. The pregnancy-specific glycoprotein (PSG) gene cluster on human chromosome 19: fine structure of the 11 PSG genes and identification of 6 new genes forming a third subgroup within the carcinoembryonic antigen (CEA) family. Genomics 23: 669-684.
- Wang, L., et al. 2000. C-CAM1, a candidate tumor suppressor gene, is abnormally expressed in primary lung cancers. Clin. Cancer Res. 6: 2988-2993.
- 4. Urrutia, R. 2003. KRAB-containing zinc-finger repressor proteins. Genome Biol. 4: 231.
- 5. Leeb, T. and Müller, M. 2004. Comparative human-mouse-rat sequence analysis of the ICAM gene cluster on HSA 19p13.2 and a 185-kb porcine region from SSC 2q. Gene 343: 239-244.
- Huntley, S., et al. 2006. A comprehensive catalog of human KRAB-associated zinc finger genes: insights into the evolutionary history of a large family of transcriptional repressors. Genome Res. 16: 669-677.
- 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.
- 8. Tian, C.Y., et al. 2006. Progress in the study of KRAB zinc finger protein. Yi Chuan 28: 1451-1456.

CHROMOSOMAL LOCATION

Genetic locus: ZNF551 (human) mapping to 19q13.43.

SOURCE

ZNF551 (A-24) is a Protein A purified rabbit polyclonal antibody raised against synthetic ZNF551 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 100 μg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

ZNF551 (A-24) is recommended for detection of ZNF551 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ZNF551 siRNA (h): sc-97108, ZNF551 shRNA Plasmid (h): sc-97108-SH and ZNF551 shRNA (h) Lentiviral Particles: sc-97108-V.

Molecular Weight of ZNF551: 78 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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) Immunofluo-rescence: 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



ZNF551 (A-24): sc-134199. Western blot analysis of ZNF551 expression in Jurkat whole cell lysate.

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.