SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF608 (D-20): sc-249696

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. 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. ZNF608 (zinc finger protein 608), also known as renal carcinoma antigen NY-REN-36, is a 1,512 amino acid protein that contains one C_2H_2-type zinc finger. As one of several members of the Krüppel C_2H_2-type zinc-finger protein family, ZNF608 is thought to be involved in transcriptional regulation events. Existing as two isoforms produced by alternative splicing events, the gene encoding ZNF608 maps to human chromosome 5, which contains 181 million base pairs and comprises nearly 6% of the human genome. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome, while deletion of the q arm or of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

1. Cannizzaro, L.A., et al. 1993. Human zinc finger gene ZNF23 (Kox16) maps to a zinc finger gene cluster on chromosome 16q22, and ZNF32 (Kox30) to chromosome region 10q23-q24. Hum. Genet. 91: 383-385.
2. Saltman, D.L., et al. 1993. A physical map of 15 loci on human chromosome 5q23-q33 by two-color fluorescence *in situ* hybridization. Genomics 16: 726-732.
3. Sun, Y., et al. 2003. The KRAB domain of zinc finger gene ZNF268: a potential transcriptional repressor. IUBMB Life 55: 127-131.
4. Rousseau-Merck, M.F., et al. 2003. The KOX zinc finger genes: genome wide mapping of 3.ZNF PAC clones with zinc finger gene clusters predominantly in 23 chromosomal loci are confirmed by human sequences annotated in EnsEMBL. Cytogenet. Genome Res. 98: 147-153.
5. Nakamura, M., et al. 2004. A novel subfamily of zinc finger genes involved in embryonic development. J. Cell. Biochem. 93: 887-895.
6. Englbrecht, C.C., et al. 2004. Conservation, diversification and expansion of C_2H_2 zinc finger proteins in the Arabidopsis thaliana genome. BMC Genomics 5: 39-39.
7. Li, Y., et al. 2006. A novel zinc-finger protein ZNF436 suppresses transcriptional activities of AP-1 and SRE. Mol. Biol. Rep. 33: 287-294.
8. Zhong, Z., et al. 2007. Identification of a novel human zinc finger gene, ZNF438, with transcription inhibition activity. J. Biochem. Mol. Biol. 40: 517-524.
9. O'Geen, H., et al. 2007. Genome-wide analysis of KAP1 binding suggests autoregulation of KRAB-ZNFs. PLoS Genet. 3: e89.

CHROMOSOMAL LOCATION

Genetic locus: ZNF608 (human) mapping to 5q23.2; Zfp608 (mouse) mapping to 18 D3.

RESEARCH USE

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

SOURCE

ZNF608 (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ZNF608 of human 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-249696 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ZNF608 (D-20) is recommended for detection of ZNF608 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.

ZNF608 (D-20) is also recommended for detection of ZNF608 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ZNF608 siRNA (h): sc-92060, ZNF608 siRNA (m): sc-155762, ZNF608 shRNA Plasmid (h): sc-92060-SH, ZNF608 shRNA Plasmid (m): sc-155762-SH, ZNF608 shRNA (h) Lentiviral Particles: sc-92060-V and ZNF608 shRNA (m) Lentiviral Particles: sc-155762-V.

Molecular Weight of ZNF608: 162 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.

STORAGE

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

PROTOCOLS

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