

ZNF366 (P-16): sc-249874

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. ZNF366 (zinc-finger protein 366) is a 744 amino acid nuclear protein that contains eleven C₂H₂-type zinc fingers and is thought to function in transcriptional regulation. The gene encoding ZNF366 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 of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

1. Bray, P., et al. 1991. Characterization and mapping of human genes encoding zinc-finger proteins. *Proc. Natl. Acad. Sci. USA* 88: 9563-9567.
2. Lichter, P., et al. 1992. Clustering of C₂H₂ zinc-finger motif sequences within telomeric and fragile site regions of human chromosomes. *Genomics* 13: 999-1007.
3. Gilligan, P., et al. 2002. Fugu and human sequence comparison identifies novel human genes and conserved non-coding sequences. *Gene* 294: 35-44.
4. 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.
5. 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.
6. Tian, C.Y., et al. 2006. Progress in the study of KRAB zinc-finger protein. *Yi Chuan.* 28: 1451-1456.
7. Vera-Carbonell, A., et al. 2009. Characterization of a *de novo* complex chromosomal rearrangement in a patient with Cri du chat and trisomy 5p syndromes. *Am. J. Med. Genet. A.* 149A: 2513-2521.
8. Ravandi, F., et al. 2009. Superior outcome with hypomethylating therapy in patients with acute myeloid leukemia and high-risk myelodysplastic syndrome and chromosome 5 and 7 abnormalities. *Cancer* 115: 5746-5751.
9. Sazawal, S., et al. 2009. Haematological & molecular profile of acute myelogenous leukaemia in India. *Indian J. Med. Res.* 129: 256-261.

CHROMOSOMAL LOCATION

Genetic locus: ZNF366 (human) mapping to 5q13.2; Zfp366 (mouse) mapping to 13 D1.

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.

SOURCE

ZNF366 (P-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ZNF366 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-249874 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ZNF366 (P-16) is recommended for detection of ZNF366 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.

Suitable for use as control antibody for ZNF366 siRNA (h): sc-91586, ZNF366 siRNA (m): sc-155701, ZNF366 shRNA Plasmid (h): sc-91586-SH, ZNF366 shRNA Plasmid (m): sc-155701-SH, ZNF366 shRNA (h) Lentiviral Particles: sc-91586-V and ZNF366 shRNA (m) Lentiviral Particles: sc-155701-V.

Molecular Weight of ZNF366: 85 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.

PROTOCOLS

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