

ZNF516 (G-14): sc-85242

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, ZNF516 (zinc-finger protein 516) is a 1,163 amino acid nuclear protein that contains 10 C₂H₂-type zinc-fingers. The gene encoding ZNF516 maps to human chromosome 18, in a region that is frequently found to be affected in 18q deletion syndrome, a multiple-anomaly mental retardation syndrome that is associated with congenital aural atresia.

REFERENCES

1. Payre, F. and Vincent, A. 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. and Margalit, H. 1993. Zinc-fingers: conserved properties that can distinguish between spurious and actual DNA-binding motifs. *J. Biomol. Struct. Dyn.* 11: 557-570.
3. Nagase, T., et al. 1996. Prediction of the coding sequences of unidentified human genes. VI. The coding sequences of 80 new genes (KIAA0201-KIAA0280) deduced by analysis of cDNA clones from cell line KG-1 and brain. *DNA Res.* 3: 321-329.
4. Urrutia, R. 2003. KRAB-containing zinc-finger repressor proteins. *Genome Biol.* 4: 231.
5. Nuijten, I., et al. 2003. Congenital aural atresia in 18q deletion or de Grouchy syndrome. *Otol. Neurotol.* 24: 900-906.
6. Beausoleil, S.A., et al. 2004. Large-scale characterization of HeLa cell nuclear phosphoproteins. *Proc. Natl. Acad. Sci. USA* 101: 12130-12135.
7. Dostal, A., et al. 2006. Identification of 2.3-Mb gene locus for congenital aural atresia in 18q22.3 deletion: a case report analyzed by comparative genomic hybridization. *Otol. Neurotol.* 27: 427-432.
8. Riley, D.E., et al. 2007. Simple repeat evolution includes dramatic primary sequence changes that conserve folding potential. *Biochem. Biophys. Res. Commun.* 355: 619-625.

CHROMOSOMAL LOCATION

Genetic locus: ZNF516 (human) mapping to 18q23; Zfp516 (mouse) mapping to 18 E3.

SOURCE

ZNF516 (G-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of ZNF516 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 of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-85242 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-85242 X, 200 µg/0.1 ml.

APPLICATIONS

ZNF516 (G-14) is recommended for detection of ZNF516 of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other ZNF family members.

ZNF516 (G-14) is also recommended for detection of ZNF516 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ZNF516 siRNA (h): sc-76992, ZNF516 siRNA (m): sc-155736, ZNF516 shRNA Plasmid (h): sc-76992-SH, ZNF516 shRNA Plasmid (m): sc-155736-SH, ZNF516 shRNA (h) Lentiviral Particles: sc-76992-V and ZNF516 shRNA (m) Lentiviral Particles: sc-155736-V.

ZNF516 (G-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of ZNF516: 124 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

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.