

# ZNF509 (N-12): sc-104785

## 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. ZNF509 is a zinc finger protein belonging to the Krüppel C<sub>2</sub>H<sub>2</sub>-type zinc-finger protein family. It localizes to the nucleus and may play a role in transcriptional regulation. ZNF509 is a 765 amino acid long protein that contains 7 C<sub>2</sub>H<sub>2</sub>-type zinc fingers and one BTB (POZ) domain.

## REFERENCES

1. Sun, Y., et al. 2003. The KRAB domain of zinc finger gene ZNF268: a potential transcriptional repressor. *IUBMB Life* 55: 127-131.
2. Nakamura, M., et al. 2004. A novel subfamily of zinc finger genes involved in embryonic development. *J. Cell. Biochem.* 93: 887-895.
3. Englbrecht, C.C., et al. 2004. Conservation, diversification and expansion of C<sub>2</sub>H<sub>2</sub> zinc finger proteins in the *Arabidopsis thaliana* genome. *BMC Genomics* 5: 39.
4. 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.
5. 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.
6. 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: ZBTB49 (human) mapping to 4p16.3; Zbtb49 (mouse) mapping to 5 B3.

## SOURCE

ZNF509 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of ZNF509 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-104785 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-104785 X, 200 µg/0.1 ml.

## STORAGE

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

## APPLICATIONS

ZNF509 (N-12) is recommended for detection of ZNF509 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).

ZNF509 (N-12) is also recommended for detection of ZNF509 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ZNF509 siRNA (h): sc-88959, ZNF509 siRNA (m): sc-106716, ZNF509 shRNA Plasmid (h): sc-88959-SH, ZNF509 shRNA Plasmid (m): sc-106716-SH, ZNF509 shRNA (h) Lentiviral Particles: sc-88959-V and ZNF509 shRNA (m) Lentiviral Particles: sc-106716-V.

ZNF509 (N-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

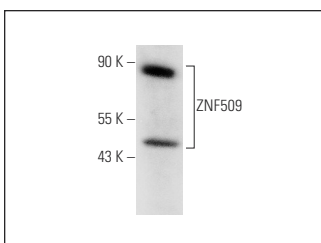
Molecular Weight of ZNF509: 85 kDa.

Positive Controls: LNCaP cell lysate: sc-2231 or mouse brain extract: sc-2253.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



ZNF509 (N-12): sc-104785. Western blot analysis of ZNF509 expression in mouse brain tissue extract.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.