



## GLI-4 (N-14): sc-68542

### 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 krueppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. GLI-4, also known as HKR4, is a 376 amino acid protein that localizes to the nucleus and contains seven C<sub>2</sub>H<sub>2</sub>-type zinc fingers. Belonging to the krueppel C<sub>2</sub>H<sub>2</sub>-type zinc-finger protein family, GLI-4 may function as a transcriptional regulator, effectively activating or repressing the transcription of target genes. The gene encoding GLI-4 maps to human chromosome 8, which consists of nearly 146 million base pairs, houses more than 800 genes and is associated with a variety of diseases and malignancies.

### REFERENCES

1. Ruppert, J.M., Kinzler, K.W., Wong, A.J., Bigner, S.H., Kao, F.T., Law, M.L., Seuanez, H.N., O'Brien, S.J. and Vogelstein, B. 1988. The GLI-Kruppel family of human genes. *Mol. Cell. Biol.* 8: 3104-3113.
2. Kinzler, K.W., Ruppert, J.M., Bigner, S.H. and Vogelstein, B. 1988. The GLI gene is a member of the Kruppel family of zinc finger proteins. *Nature* 332: 371-374.
3. South, T.L. and Summers, M.F. 1990. Zinc fingers. *Adv. Inorg. Biochem.* 8: 199-248.
4. Kas, K., Wlodarska, I., Meyen, E., Van den Berghe, H. and Van de Ven, W.J. 1996. Assignment of the gene encoding human Kruppel-related zinc finger protein 4 (GLI4) to 8q24.3 by fluorescent *in situ* hybridization. *Cytogenet. Cell Genet.* 72: 297-298.
5. Online Mendelian Inheritance in Man, OMIM™. 1997. Johns Hopkins University, Baltimore, MD. MIM Number: 165280. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Thomas, J.H. and Emerson, R.O. 2009. Evolution of C<sub>2</sub>H<sub>2</sub>-zinc finger genes revisited. *BMC Evol. Biol.* 9: 51.

### CHROMOSOMAL LOCATION

Genetic locus: GLI4 (human) mapping to 8q24.3.

### SOURCE

GLI-4 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of GLI-4 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-68542 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-68542 X, 200 µg/0.1 ml.

### APPLICATIONS

GLI-4 (N-14) is recommended for detection of GLI-4 of 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).

Suitable for use as control antibody for GLI-4 siRNA (h): sc-75140, GLI-4 shRNA Plasmid (h): sc-75140-SH and GLI-4 shRNA (h) Lentiviral Particles: sc-75140-V.

GLI-4 (N-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of GLI-4: 41 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.

### 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.