

# GLI-1 (N-16): sc-6153

## 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. GLI-1 (GLI family zinc finger 1), also known as Glioma-associated oncogene or oncogene GLI, is a 1,106 amino acid protein that localizes to both the cytoplasm and nucleus, and belongs to the GLI C<sub>2</sub>H<sub>2</sub>-type zinc-finger protein family. GLI-1 acts as a transcriptional activator and is thought to play a role in craniofacial development. GLI-1 exists as two alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 12q13.3.

## CHROMOSOMAL LOCATION

Genetic locus: GLI1 (human) mapping to 12q13.3; Gli1 (mouse) mapping to 10 D3.

## SOURCE

GLI-1 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of GLI-1 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-6153 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-6153 X, 200 µg/0.1 ml.

## APPLICATIONS

GLI-1 (N-16) is recommended for detection of GLI-1 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). GLI-1 (N-16) is also recommended for detection of GLI-1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for GLI-1 siRNA (h): sc-37911, GLI-1 siRNA (m): sc-37912, GLI-1 shRNA Plasmid (h): sc-37911-SH, GLI-1 shRNA Plasmid (m): sc-37912-SH, GLI-1 shRNA (h) Lentiviral Particles: sc-37911-V and GLI-1 shRNA (m) Lentiviral Particles: sc-37912-V.

GLI-1 (N-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of GLI-1: 118 kDa.

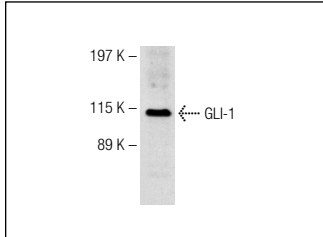
Molecular Weight (observed) of GLI-1: 114-173 kDa.

Positive Controls: F9 cell lysate: sc-2245 or K-562 nuclear extract: sc-2130.

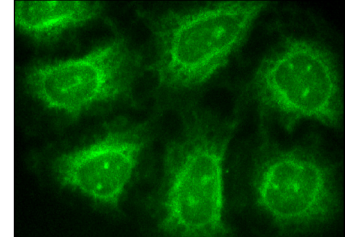
## STORAGE

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

## DATA



GLI-1 (N-16): sc-6153. Western blot analysis of GLI-1 expression in SK-N-MC whole cell lysate.



GLI-1 (N-16): sc-6153. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

- Dai, P., et al. 1999. Sonic hedgehog-induced activation of the GLI-1 promoter is mediated by GLI-3. *J. Biol. Chem.* 274: 8143-8152.
- Ghali, L., et al. 1999. Gli1 protein is expressed in basal cell carcinomas, outer root sheath keratinocytes and a subpopulation of mesenchymal cells in normal human skin. *J. Invest. Dermatol.* 113: 595-599.
- Oue, T., et al. 2010. Increased expression of the hedgehog signaling pathway in pediatric solid malignancies. *J. Pediatr. Surg.* 45: 387-392.
- Xu, L., et al. 2010. Gli1 promotes cell survival and is predictive of a poor outcome in ER $\alpha$ -negative breast cancer. *Breast Cancer Res. Treat.* 123: 59-71.
- Shehata, B.M., et al. 2011. Immunohistochemical characterization of sonic hedgehog and its downstream signaling molecules during human penile development. *Fetal Pediatr. Pathol.* 30: 244-251.
- Souzaki, M., et al. 2011. Hedgehog signaling pathway mediates the progression of non-invasive breast cancer to invasive breast cancer. *Cancer Sci.* 102: 373-381.
- Onishi, H., et al. 2011. Hypoxia activates the hedgehog signaling pathway in a ligand-independent manner by upregulation of Smo transcription in pancreatic cancer. *Cancer Sci.* 102: 1144-1150.
- Xu, M., et al. 2012. Prognostic value of hedgehog signaling pathway in patients with colon cancer. *Med. Oncol.* 29: 1010-1016.

## RESEARCH USE

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



Try **GLI-1 (1B9F8): sc-517189**, our highly recommended monoclonal alternative to GLI-1 (N-16).