SANTA CRUZ BIOTECHNOLOGY, INC.

GLI-1 (C-18): sc-6152



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 C₂H₂-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 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of GLI-1 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6152 P, (100 μ g 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-6152 X, 200 μ g/0.1 ml.

APPLICATIONS

GLI-1 (C-18) 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), 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 (C-18) is also recommended for detection of GLI-1 in additional species, including equine, bovine and porcine.

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 (C-18) 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.

RESEARCH USE

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

SELECT PRODUCT CITATIONS

- 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.
- Di Marcotullio, L., et al. 2004. REN(KCTD11) is a suppressor of hedgehog signaling and is deleted in human medulloblastoma. Proc. Natl. Acad. Sci. USA 101: 10833-10838.
- 3. Regl, G., et al. 2004. Activation of the Bcl-2 promoter in response to Hedgehog/GLI signal transduction is predominantly mediated by GLI-2. Cancer Res. 64: 7724-7731.
- Kasper, M., et al. 2006. Selective modulation of Hedgehog/GLI target gene expression by epidermal growth factor signaling in human keratinocytes. Mol. Cell. Biol. 26: 6283-6298.
- Di Marcotullio, L., et al. 2006. NUMB is a suppressor of Hedgehog signalling and targets GLI-1 for ltch-dependent ubiquitination. Nat. Cell Biol. 8: 1415-1423.
- Yoshizaki, A., et al. 2006. Expressions of sonic hedgehog, patched, smoothened and Gli-1 in human intestinal stromal tumors and their correlation with prognosis. World J. Gastroenterol. 12: 5687-5691.
- Kasper, M., et al. 2007. Efficient manipulation of Hedgehog/GLI signaling using retroviral expression systems. Methods Mol. Biol. 397: 67-78.
- Laner-Plamberger, S., et al. 2009. Cooperation between GLI and JUN enhances transcription of JUN and selected GLI target genes. Oncogene 28: 1639-1651.
- 9. Rittié, L., et al. 2009. Hedgehog signaling maintains hair follicle stem cell phenotype in young and aged human skin. Aging Cell 8: 738-751.
- Yang, Y., et al. 2010. Expression and regulation of hedgehog signaling pathway in pancreatic cancer. Langenbecks Arch. Surg. 395: 515-525.
- Zhao, J., et al. 2010. Expression of Gli1 correlates with the transition of breast cancer cells to estrogen-independent growth. Breast Cancer Res. Treat. 119: 39-51.
- Di Marcotullio, L., et al. 2011. Numb activates the E3 ligase ltch to control Gli1 function through a novel degradation signal. Oncogene 30: 65-76.
- Zhu, W., et al. 2011. Correlation of hedgehog signal activation with chemoradiotherapy sensitivity and survival in esophageal squamous cell carcinomas. Jpn. J. Clin. Oncol. 41: 386-393.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

MONOS Satisfation Guaranteed Try **GLI-1 (1B9F8): sc-517189**, our highly recommended monoclonal aternative to GLI-1 (C-18).