SANTA CRUZ BIOTECHNOLOGY, INC.

GLI-2 (H-300): sc-28674

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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-2 (GLI family zinc finger 2), also known as HPE9 or THP (tax helper protein), is a 1,586 amino acid nuclear protein that acts as a transcriptional activator and belongs to the GLI C_2H_2-type zinc-finger protein family. Localized to the nucleus, GLI-2 is thought to play a role in embryogenesis. The gene encoding GLI-2 maps to human chromosome 2q14.2, and when defective is the cause of holoprosencephaly type 9 (HPE9). GLI-2 exists as five alternatively spliced isoforms.

CHROMOSOMAL LOCATION

Genetic locus: GLI2 (human) mapping to 2q14.2; Gli2 (mouse) mapping to 1 E2.3.

SOURCE

GLI-2 (H-300) is a rabbit polyclonal antibody raised against amino acids 841-1140 mapping near the C-terminus of GLI-2 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-28674 X, 200 µg/0.1 ml.

APPLICATIONS

GLI-2 (H-300) is recommended for detection of GLI-2 of human and, to a lesser extent, mouse and rat 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).

Suitable for use as control antibody for GLI-2 siRNA (h): sc-37913, GLI-2 siRNA (m): sc-145421, GLI-2 shRNA Plasmid (h): sc-37913-SH, GLI-2 shRNA Plasmid (m): sc-145421-SH, GLI-2 shRNA (h) Lentiviral Particles: sc-37913-V and GLI-2 shRNA (m) Lentiviral Particles: sc-145421-V.

GLI-2 (H-300) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of GLI-2 isoforms 5/α/β/γ/δ: 168/133/132/88/86 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, TF-1 cell lysate: sc-2412 or HOS cell lysate: sc-2275.

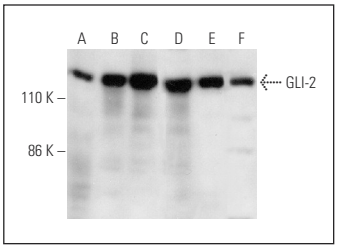
STORAGE

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.

DATA



GLI-2 (H-300): sc-28674. Western blot analysis of GLI-2 expression in K-562 (**A**), TF-1 (**B**), PC-3 (**C**), Jurkat (**D**) and MDA-MB-231 (**E**) nuclear extracts and F9 whole cell lysate (**F**).

SELECT PRODUCT CITATIONS

1. Kasper, M., et al. 2007. Efficient manipulation of Hedgehog/GLI signaling using retroviral expression systems. Methods Mol. Biol. 397: 67-78.
2. Eichberger, T., et al. 2008. GLI-2 specific transcriptional activation of the bone morphogenetic protein/activin antagonist follistatin in human epidermal cells. J. Biol. Chem. 283: 12426-12437.
3. Marsh, D., et al. 2008. Integrin αV/β6 promotes the invasion of morphoeic basal cell carcinoma through stromal modulation. Cancer Res. 68: 3295-3303.
4. Kump, E., et al. 2008. GLI-2 upregulates cFLIP and renders basal cell carcinoma cells resistant to death ligand-mediated apoptosis. Oncogene 27: 3856-3864.
5. Laner-Plamberger, S., et al. 2009. Cooperation between GLI and Jun enhances transcription of Jun and selected GLI target genes. Oncogene 28: 1639-1651.
6. Clement, C.A., et al. 2009. The primary cilium coordinates early cardiogenesis and hedgehog signaling in cardiomyocyte differentiation. J. Cell Sci. 122: 3070-3082.
7. Zhang, J., et al. 2009. Down-regulation of SHH/BMP4 signalling in human anorectal malformations. J. Int. Med. Res. 37: 1842-1850.
8. Po, A., et al. 2010. Hedgehog controls neural stem cells through p53-independent regulation of Nanog. EMBO J. 29: 2646-2658.