SANTA CRUZ BIOTECHNOLOGY, INC.

GLI-2 (C-10): sc-271786

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 (C-10) is a mouse monoclonal 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_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-271786 X, 200 µg/0.1 ml.

GLI-2 (C-10) is available conjugated to agarose (sc-271786 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-271786 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271786 PE), fluorescein (sc-271786 FITC), Alexa Fluor® 488 (sc-271786 AF488), Alexa Fluor® 546 (sc-271786 AF546), Alexa Fluor® 594 (sc-271786 AF594) or Alexa Fluor® 647 (sc-271786 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271786 AF680) or Alexa Fluor® 790 (sc-271786 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

GLI-2 (C-10) is recommended for detection of GLI-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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.

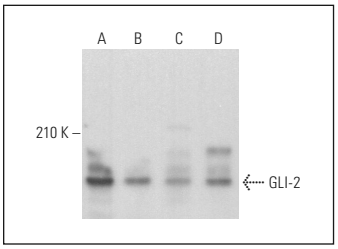
GLI-2 (C-10) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

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

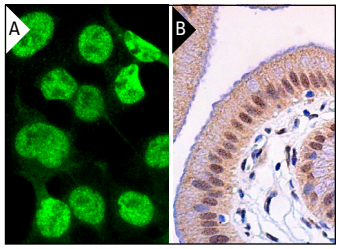
STORAGE

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

DATA



GLI-2 (C-10): sc-271786. Western blot analysis of GLI-2 expression in K-562 (**A**), U-2 OS (**B**), A549 (**C**) and TF-1 (**D**) whole cell lysates.



GLI-2 (C-10): sc-271786. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing nuclear staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Coni, S., et al. 2013. GLI2 acetylation at lysine 757 regulates hedgehog-dependent transcriptional output by preventing its promoter occupancy. PLoS ONE 8: e65718.
2. Amano, K., et al. 2014. Indian hedgehog signaling regulates transcription and expression of collagen type X via Runx2/Smads interactions. J. Biol. Chem. 289: 24898-24910.
3. Inaguma, S., et al. 2015. Addiction of pancreatic cancer cells to zinc-finger transcription factor ZIC2. Oncotarget 6: 28257-28268.
4. Mazo, G., et al. 2016. Spatial control of primary ciliogenesis by subdistal appendages alters sensation-associated properties of cilia. Dev. Cell 39: 424-437.
5. Drannik, A., et al. 2017. Cerebrospinal fluid from patients with amyotrophic lateral sclerosis inhibits sonic hedgehog function. PLoS ONE 12: e0171668.
6. Zhou, F., et al. 2017. Nek2A/SuFu feedback loop regulates GLI-mediated hedgehog signaling pathway. Int. J. Oncol. 50: 373-380.
7. Besharat, Z.M., et al. 2018. FXOM1 controls a pro-stemness microRNA network in neural stem cells. Sci. Rep. 8: 3523.
8. Kowolik, C.M., et al. 2019. Attenuation of hedgehog/GLI signaling by NT1721 extends survival in pancreatic cancer. J. Exp. Clin. Cancer Res. 38: 431.
9. Jiayuan, S., et al. 2020. Gant61 ameliorates CCl_4-induced liver fibrosis by inhibition of hedgehog signaling activity. Toxicol. Appl. Pharmacol. 387: 114853.
10. Li, S., et al. 2020. Silica perturbs primary cilia and causes myofibroblast differentiation during silicosis by reduction of the KIF3A-repressor GLI3 complex. Theranostics 10: 1719-1732.

RESEARCH USE

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