SANTA CRUZ BIOTECHNOLOGY, INC.

GLI-3 (N-19): sc-6155

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-3 (GLI family zinc finger 3), also known as GLI3FL (GLI3 full length protein), PHS, ACLS, GCPS, PAPA, PAPB, PAPA1 or PPDIV, is a 1,580 amino acid nuclear and cytoplasmic protein that acts as both a transcriptional activator and a repressor of the Sonic hedgehog (Shh) pathway. A member of the GLI C_2H_2-type zinc-finger protein family, GLI-3 is encoded by a gene that maps to human chromosome 7p14.1. Defects in the GLI-3 gene are the cause of a disorder known as Greig cephalopoly-syndactyly syndrome (GCPS), which affects limb and craniofacial development.

CHROMOSOMAL LOCATION

Genetic locus: GLI3 (human) mapping to 7p14.1; Gli3 (mouse) mapping to 13 A1.

SOURCE

GLI-3 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of GLI-3 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-6155 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-6155 X, 200 µg/0.1 ml.

APPLICATIONS

GLI-3 (N-19) is recommended for detection of GLI-3 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), 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).

GLI-3 (N-19) is also recommended for detection of GLI-3 in additional species, including equine, bovine and avian.

Suitable for use as control antibody for GLI-3 siRNA (h): sc-35483, GLI-3 siRNA (m): sc-35484, GLI-3 shRNA Plasmid (h): sc-35483-SH, GLI-3 shRNA Plasmid (m): sc-35484-SH, GLI-3 shRNA (h) Lentiviral Particles: sc-35483-V and GLI-3 shRNA (m) Lentiviral Particles: sc-35484-V.

GLI-3 (N-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

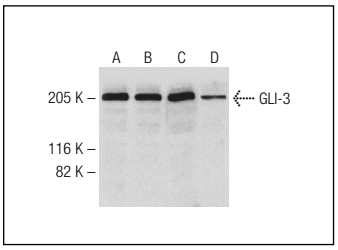
Molecular Weight of GLI-3: 190 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, K-562 whole cell lysate: sc-2203 or Y79 cell lysate: sc-2240.

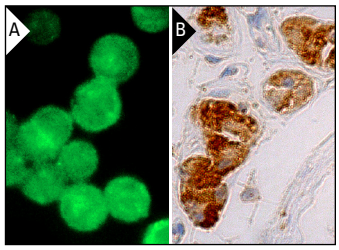
STORAGE

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

DATA



GLI-3 (N-19): sc-6155. Western blot analysis of GLI-3 expression in K-562 (**A**), Jurkat (**B**), Y79 (**C**) and SK-N-MC (**D**) whole cell lysates.



GLI-3 (N-19): sc-6155. Immunofluorescence staining of methanol-fixed SW480 cells showing nuclear and cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic staining of Leydig cells and cells in seminiferous ducts (**B**).

SELECT PRODUCT CITATIONS

1. 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.
2. Chen, B.Y., et al. 2007. Hedgehog is involved in prostate basal cell hyperplasia formation and its progressing towards tumorigenesis. Biochem. Biophys. Res. Commun. 357: 1084-1089.
3. Nielsen, S.K., et al. 2008. Characterization of primary cilia and Hedgehog signaling during development of the human pancreas and in human pancreatic duct cancer cell lines. Dev. Dyn. 237: 2039-2052.
4. Alinger, B., et al. 2009. Hedgehog signaling is involved in differentiation of normal colonic tissue rather than in tumor proliferation. Virchows Arch. 454: 369-379.
5. Clement, C.A., et al. 2009. The primary cilium coordinates early cardiogenesis and hedgehog signaling in cardiomyocyte differentiation. J. Cell Sci. 122: 3070-3082.
6. Buczkowicz, P., et al. 2011. GLI2 is a potential therapeutic target in pediatric medulloblastoma. J. Neuropathol. Exp. Neurol. 70: 430-437.
7. Zhang, L., et al. 2013. Identification of Sirtuin 3, a mitochondrial protein deacetylase, as a new contributor to tamoxifen resistance in breast cancer cells. Biochem. Pharmacol. 86: 726-733.

RESEARCH USE

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

MONOS Satisfaction Guaranteed

Try **GLI-3 (B-4): sc-74478**, our highly recommended monoclonal alternative to GLI-3 (N-19).