SANTA CRUZ BIOTECHNOLOGY, INC.

GLIS3 (H-62): sc-135267

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. GLIS3 (gLIS family zinc finger 3), also known as ZNF515 (zinc finger protein 515), is a 775 amino acid protein that localizes to the nucleus and contains 5 C_2H_2-type zinc-fingers. Expressed in a variety of tissues, including kidney, brain, liver, lung, ovary, pancreas, thymus and skeletal muscle, GLIS3 functions as both an activator and a suppressor of transcription, specifically binding the consensus sequence 5'-GACCACCCAC-3' through its C_2H_2-type zinc-fingers. Defects in the gene encoding GLIS3 are a cause of NDH syndrome; a neonatal diabetes that is characterized by congenital hypothyroidism, congenital glaucoma, hepatic fibrosis and polycystic kidneys.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610192. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
2. Kim, Y.S., et al. 2003. GLIS3, a novel member of the GLIS subfamily of Krüppel-like zinc-finger proteins with repressor and activation functions. Nucleic Acids Res. 31: 5513-5525.
3. Senée, V., et al. 2006. Mutations in GLIS3 are responsible for a rare syndrome with neonatal diabetes mellitus and congenital hypothyroidism. Nat. Genet. 38: 682-687.
4. Barbetti, F. 2007. Diagnosis of neonatal and infancy-onset diabetes. Endocr. Dev. 11: 83-93.
5. Beak, J.Y., et al. 2007. Krüppel-like zinc-finger protein GLIS3 promotes osteoblast differentiation by regulating FGF18 expression. J. Bone Miner. Res. 22: 1234-1244.
6. Beak, J.Y., et al. 2008. Functional analysis of the zinc finger and activation domains of GLIS3 and mutant GLIS3(NDH1). Nucleic Acids Res. 36: 1690-1702.

CHROMOSOMAL LOCATION

Genetic locus: GLIS3 (human) mapping to 9p24.2; Glis3 (mouse) mapping to 19 C1.

SOURCE

GLIS3 (H-62) is a rabbit polyclonal antibody raised against amino acids 117-178 mapping within an internal region of GLIS3 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.

STORAGE

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

APPLICATIONS

GLIS3 (H-62) is recommended for detection of GLIS3 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).

GLIS3 (H-62) is also recommended for detection of GLIS3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GLIS3 siRNA (h): sc-62382, GLIS3 siRNA (m): sc-62383, GLIS3 shRNA Plasmid (h): sc-62382-SH, GLIS3 shRNA Plasmid (m): sc-62383-SH, GLIS3 shRNA (h) Lentiviral Particles: sc-62382-V and GLIS3 shRNA (m) Lentiviral Particles: sc-62383-V.

GLIS3 (H-62) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

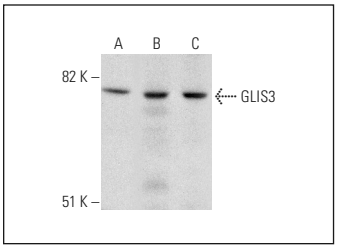
Molecular Weight of GLIS3: 84 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411, Jurkat nuclear extract: sc-2132 or KNRK nuclear extract: sc-2141.

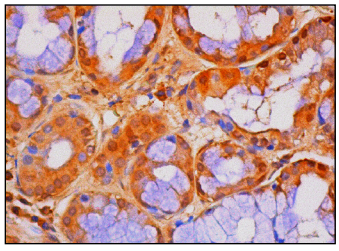
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



GLIS3 (H-62): sc-135267. Western blot analysis of GLIS3 expression in U-87 MG whole cell lysate (**A**) and Jurkat (**B**) and KNRK (**C**) nuclear extracts.



GLIS3 (H-62): sc-135267. Immunoperoxidase staining of formalin fixed, paraffin-embedded human salivary gland tissue showing nuclear and cytoplasmic staining of glandular cells.

RESEARCH USE

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