SANTA CRUZ BIOTECHNOLOGY, INC.

# GSKIP (C-12): sc-164567

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*The Power to Question*

## BACKGROUND

GSKIP (GSK3-β interaction protein), also known as C14orf129 or HSPC210, is a 139 amino acid protein belonging to the UPF0279 family. Localizing to the cytoplasm, GSKIP is expressed in heart, brain, placenta, liver, skeletal muscle, kidney, testis, lung and pancreas. GSKIP interacts directly with GSK-3B, a protein that plays an important role in various physiological functions and regulates axons and dendrites, resulting in GSK-3B inhibition. The gene encoding GSKIP maps to human chromosome 14, which contains approximately 700 genes and 106 million base pairs, and makes up about 3.5% of human cellular DNA. Chromosome 14 encodes the presinilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease. The genetic disorder α1-antitrypsin deficiency is also associated with chromosome 14.

## REFERENCES


1. Heilig, R., et al. 2003. The DNA sequence and analysis of human chromosome 14. Nature 421: 601-607.
2. Avramopoulos, D., et al. 2005. Linkage to chromosome 14q in Alzheimer's disease (AD) patients without psychotic symptoms. Am. J. Med. Genet. B Neuropsychiatr. Genet. 132B: 9-13.
3. Chou, H.Y., et al. 2006. GSKIP is homologous to the Axin GSK3β interaction domain and functions as a negative regulator of GSK3β. Biochemistry 45: 11379-11389.
4. Larner, A.J., et al. 2009. Genotype-phenotype relationships of presenilin-1 mutations in Alzheimer's disease: an update. J. Alzheimers Dis. 17: 259-265.
5. Lin, C.C., et al. 2009. GSKIP, an inhibitor of GSK3β, mediates the N-cadherin/β-catenin pool in the differentiation of SH-SY5Y cells. J. Cell. Biochem. 108: 1325-1336.
6. Topic, A., et al. 2009. α-1-antitrypsin phenotypes in adult liver disease patients. Ups. J. Med. Sci. 114: 228-234.
7. Howng, S.L., et al. 2010. Involvement of the residues of GSKIP, AxinGID, and FRATtide in their binding with GSK3β to unravel a novel C-terminal scaffold-binding region. Mol. Cell. Biochem. 339: 23-33.
8. Tang, X.N., et al. 2011. Prediction of the binding mode between GSK3 and a peptide derived from GSKIP using molecular dynamics simulation. Biopolymers 95: 461-471.


## CHROMOSOMAL LOCATION

Genetic locus: GSKIP (human) mapping to 14q32.2; Gskip (mouse) mapping to 12 E.

## SOURCE

GSKIP (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of GSKIP of human origin.

## STORAGE

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

## 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-164567 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

GSKIP (C-12) is recommended for detection of GSKIP 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).

GSKIP (C-12) is also recommended for detection of GSKIP in additional species, including bovine and avian.

Suitable for use as control antibody for GSKIP siRNA (h): sc-92269, GSKIP siRNA (m): sc-140326, GSKIP shRNA Plasmid (h): sc-92269-SH, GSKIP shRNA Plasmid (m): sc-140326-SH, GSKIP shRNA (h) Lentiviral Particles: sc-92269-V and GSKIP shRNA (m) Lentiviral Particles: sc-140326-V.

Molecular Weight of GSKIP: 16 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.