SANTA CRUZ BIOTECHNOLOGY, INC.

GCIP (E-19): sc-160360

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

GCIP (Grap2 (Gads) and cyclin D-interacting protein), also known as cyclin D-type binding-protein 1 (CCNDBP1), human homolog of maid (HHM) or DIP1, is a 360 amino acid cytoplasmic and nuclear protein belonging to the CCNDBP1 family. GCIP interacts with cyclin D and Gads, a leukocyte-specific adaptor protein known to influence immune cell signaling. Suggested to regulate cell cycle progression, GCIP acts as a negative regulator of liver-specific gene expression and prevents Rb phosphorylation by inhibiting the Cdk4/cyclin D complex. GCIP expression is down-regulated in a number of tumors including those found in rectum, breast, prostate and colon, but up-regulated in hepatic cancers. GCIP is ubiquitously expressed and exists as at least four alternatively spliced isoforms whose expression likely increases during differentiation and can be induced by sodium butyrate.

REFERENCES

1. Xia, C., et al. 2000. GCIP, a novel human grap2 and cyclin D interacting protein, regulates E2F-mediated transcriptional activity. J. Biol. Chem. 275: 20942-20948.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607089. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Ma, W., et al. 2006. Expression of GCIP in transgenic mice decreases susceptibility to chemical hepatocarcinogenesis. Oncogene 25: 4207-4216.
4. Chellas-Gery, B., et al. 2007. Human GCIP interacts with CT847, a novel Chlamydia trachomatis type III secretion substrate, and is degraded in a tissue-culture infection model. Cell. Microbiol. 9: 2417-2430.
5. Ikushima, H., et al. 2008. An Id-like molecule, HHM, is a synexpression group-restricted regulator of TGFβ signalling. EMBO J. 27: 2955-2965.
6. Chen, W.C., et al. 2008. Immunohistochemical expression of GCIP in breast carcinoma: relationship with tumour grade, disease-free survival, mucinous differentiation and response to chemotherapy. Histopathology 53: 554-560.

CHROMOSOMAL LOCATION

Genetic locus: CCNDBP1 (human) mapping to 15q15.2; Ccndbp1 (mouse) mapping to 2 E5.

SOURCE

GCIP (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GCIP 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-160360 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

GCIP (E-19) is recommended for detection of GCIP of mouse 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). GCIP (E-19) is also recommended for detection of GCIP in additional species, including canine and bovine.

Suitable for use as control antibody for GCIP siRNA (h): sc-90019, GCIP siRNA (m): sc-145361, GCIP shRNA Plasmid (h): sc-90019-SH, GCIP shRNA Plasmid (m): sc-145361-SH, GCIP shRNA (h) Lentiviral Particles: sc-90019-V and GCIP shRNA (m) Lentiviral Particles: sc-145361-V.

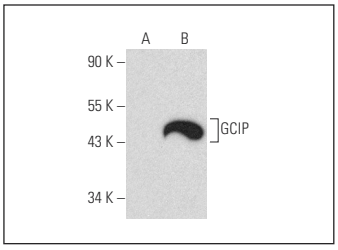
Molecular Weight of GCIP isoforms 1/2/3/4: 40/35/26/23 kDa.

Positive Controls: GCIP (m): 293T Lysate: sc-126895, A549 cell lysate: sc-2413 or K-562 whole cell lysate: sc-2203.

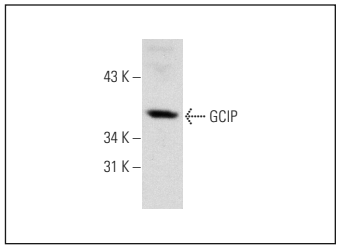
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



GCIP (E-19): sc-160360. Western blot analysis of GCIP expression in non-transfected: sc-117752 (**A**) and mouse GCIP transfected: sc-126895 (**B**) 293T whole cell lysates.



GCIP (E-19): sc-160360. Western blot analysis of GCIP expression in A549 whole cell lysate.

RESEARCH USE

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