SANTA CRUZ BIOTECHNOLOGY, INC.

GCIP (C-9): sc-514518

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.

CHROMOSOMAL LOCATION

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

SOURCE

GCIP (C-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 140-156 within an internal region of GCIP 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.

GCIP (C-9) is available conjugated to agarose (sc-514518 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514518 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514518 PE), fluorescein (sc-514518 FITC), Alexa Fluor® 488 (sc-514518 AF488), Alexa Fluor® 546 (sc-514518 AF546), Alexa Fluor® 594 (sc-514518 AF594) or Alexa Fluor® 647 (sc-514518 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514518 AF680) or Alexa Fluor® 790 (sc-514518 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514518 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

GCIP (C-9) is recommended for detection of GCIP 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

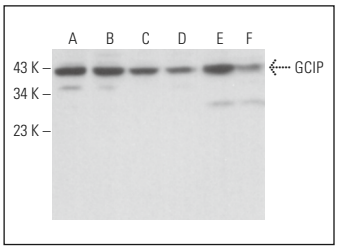
Molecular Weight of GCIP isoforms 1/2/3/4: 40/35/26/23 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, K-562 whole cell lysate: sc-2203 or Raji whole cell lysate: sc-364236.

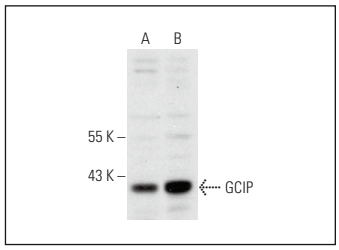
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



GCIP (C-9): sc-514518. Western blot analysis of GCIP expression in K-562 (**A**), CCRF-CEM (**B**), NAMALWA (**C**), Raji (**D**), BYDP (**E**) and RAW 264.7 (**F**) whole cell lysates.



GCIP (C-9): sc-514518. Western blot analysis of GCIP expression in K-562 (**A**) and Jurkat (**B**) whole cell lysates.

STORAGE

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

RESEARCH USE

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