SANTA CRUZ BIOTECHNOLOGY, INC.

GCIP (T-14): sc-160363



BACKGROUND

GCIP (Grap2 (Gads) and cyclin D-interacting protein), also known as cyclin Dtype 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/
- 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 TGF β signalling. EMB0 J. 27: 2955-2965.
- 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.
- 7. Chang, T.W., et al. 2008. Ribosomal phosphoprotein P0 interacts with GCIP and overexpression of P0 is associated with cellular proliferation in breast and liver carcinoma cells. Oncogene 27: 332-338.

CHROMOSOMAL LOCATION

Genetic locus: CCNDBP1 (human) mapping to 15q15.2.

SOURCE

GCIP (T-14) 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 lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-160363 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GCIP (T-14) is recommended for detection of GCIP of 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).

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

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

Positive Controls: MCF7 whole cell lysate: sc-2206, K-562 whole cell lysate: sc-2203 or A549 cell lysate: sc-2413.

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) Immunofluo-rescence: use donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



GCIP (T-14): sc-160363. Western blot analysis of GCIP expression in MCF7 whole cell lysate.

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.

MONOS Satisfation Guaranteed