

gankyrin (G-2): sc-166213

BACKGROUND

Gankyrin, a hepatocellular carcinoma-associated protein, regulates protein-protein interactions in cell cycle control as well as protein degradation. Furthermore, upregulation of gankyrin correlates with cell-cycle progression in normal hepatocytes as well. It contains six domains known as Ankyrin repeats, and interacts with Rb, Cdk4, the 26S Proteasome and MAGE-A4. This last interaction suppresses anchorage-independent growth in gankyrin overexpressing cells, demonstrating a possible mechanism for immunotherapy in hepatocellular carcinoma.

REFERENCES

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2. Nagao, T., et al. 2003. MAGE-A4 interacts with the liver oncoprotein gankyrin and suppresses its tumorigenic activity. *J. Biol. Chem.* 278: 10668-10674.
3. Krzywdka, S., et al. 2004. The crystal structure of gankyrin, an oncoprotein found in complexes with cyclin-dependent kinase 4, a 19 S proteasomal ATPase regulator, and the tumor suppressors Rb and p53. *J. Biol. Chem.* 279: 1541-1545.
4. Higashitsuji, H., et al. 2005. The oncoprotein gankyrin binds to MDM2/HDM2, enhancing ubiquitylation and degradation of p53. *Cancer Cell* 8: 75-87.
5. Higashitsuji, H., et al. 2007. The oncoprotein gankyrin interacts with RelA and suppresses NFκB activity. *Biochem. Biophys. Res. Commun.* 363: 879-884.
6. Chen, Y., et al. 2007. Oncoprotein p28 GANK binds to RelA and retains NFκB in the cytoplasm through nuclear export. *Cell Res.* 17: 1020-1029.
7. Uemura, A., et al. 2008. Association of gankyrin protein expression with early clinical stages and Insulin-like growth factor-binding protein 5 expression in human hepatocellular carcinoma. *Hepatology* 47: 493-502.

CHROMOSOMAL LOCATION

Genetic locus: PSMD10 (human) mapping to Xq22.3; Psm10 (mouse) mapping to X F1.

SOURCE

gankyrin (G-2) is a mouse monoclonal antibody raised against amino acids 1-231 representing full length gankyrin of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain 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

gankyrin (G-2) is recommended for detection of gankyrin 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 gankyrin siRNA (h): sc-72186, gankyrin siRNA (m): sc-72187, gankyrin shRNA Plasmid (h): sc-72186-SH, gankyrin shRNA Plasmid (m): sc-72187-SH, gankyrin shRNA (h) Lentiviral Particles: sc-72186-V and gankyrin shRNA (m) Lentiviral Particles: sc-72187-V.

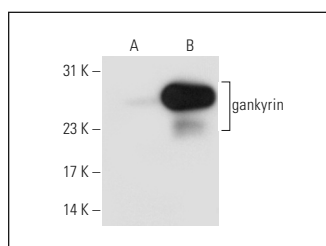
Molecular Weight of gankyrin: 25 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Caki-1 cell lysate: sc-2224 or gankyrin (m): 293T Lysate: sc-120400.

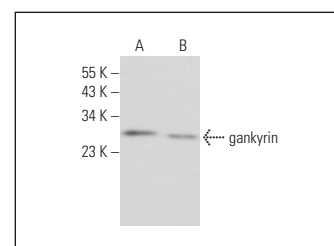
RECOMMENDED SUPPORT REAGENTS

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



gankyrin (G-2): sc-166213. Western blot analysis of gankyrin expression in non-transfected: sc-117752 (A) and mouse gankyrin transfected: sc-120400 (B) 293T whole cell lysates.



gankyrin (G-2): sc-166213. Western blot analysis of gankyrin expression in Caki-1 (A) and Jurkat (B) whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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