

gankyrin (3A6C2): sc-101498

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.

CHROMOSOMAL LOCATION

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

SOURCE

gankyrin (3A6C2) is a mouse monoclonal antibody raised against recombinant gankyrin of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

gankyrin (3A6C2) is available conjugated to agarose (sc-101498 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-101498 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-101498 PE), fluorescein (sc-101498 FITC), Alexa Fluor® 488 (sc-101498 AF488), Alexa Fluor® 546 (sc-101498 AF546), Alexa Fluor® 594 (sc-101498 AF594) or Alexa Fluor® 647 (sc-101498 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-101498 AF680) or Alexa Fluor® 790 (sc-101498 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

gankyrin (3A6C2) is recommended for detection of gankyrin of mouse, rat 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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.

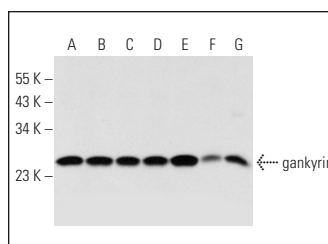
Molecular Weight of gankyrin: 25 kDa.

Positive Controls: gankyrin (m): 293T Lysate: sc-120400, K-562 whole cell lysate: sc-2203 or HL-60 whole cell lysate: sc-2209.

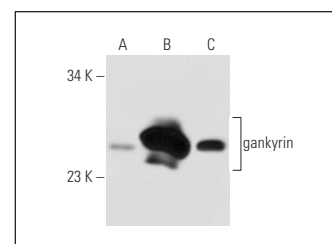
RECOMMENDED SUPPORT REAGENTS

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 (3A6C2): sc-101498. Western blot analysis of gankyrin expression in HeLa (A), K-562 (B), HL-60 (C), ES-2 (D), JAR (E), Caki-1 (F) and Hep G2 (G) whole cell lysates.



gankyrin (3A6C2): sc-101498. Western blot analysis of gankyrin expression in non-transfected 293T: sc-117752 (A), mouse gankyrin transfected 293T: sc-120400 (B) and HeLa (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Chen, B.F., et al. 2014. A miR-199a/miR-214 self-regulatory network via PSMD10, TP53 and DNMT1 in testicular germ cell tumor. *Sci. Rep.* 4: 6413.
- Luo, T., et al. 2016. PSMD10/gankyrin induces autophagy to promote tumor progression through cytoplasmic interaction with ATG7 and nuclear transactivation of ATG7 expression. *Autophagy* 12: 1355-1371.
- Kim, T.D., et al. 2016. Upregulation of PSMD10 caused by the JMJD2A histone demethylase. *Int. J. Clin. Exp. Med.* 9: 10123-10134.
- Wang, C., et al. 2021. Gankyrin activates the hedgehog signalling to drive metastasis in osteosarcoma. *J. Cell. Mol. Med.* 25: 6232-6241.
- Yang, C., et al. 2022. Gankyrin and TIGAR cooperatively accelerate glucose metabolism toward the PPP and TCA cycle in hepatocellular carcinoma. *Cancer Sci.* E-published.

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.