SANTA CRUZ BIOTECHNOLOGY, INC.

Fibrillarin (G-4): sc-166021

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Fibrillarin is a widely occurring, basic, nonhistone protein that is localized exclusively in the fibrillar region of the nucleolus, including both the dense fibrillar and the fibrillar center regions. Fibrillarin is also expressed in HeLa cells, 3T3 cells and human peripheral blood lymphocytes. In metaphase and anaphase, Fibrillarin is found on putative chromosomal nucleolar regions (NORs). During telophase, Fibrillarin is an early marker for the site of the newly forming nucleolus. The structure of Fibrillarin includes an RNA-binding domain and an RNP consensus sequence, which is consistent with the association of Fibrillarin with the U3 small nucleolar RNA. Fibrillarin is involved in processing rRNA transcripts in the nucleolus.

CHROMOSOMAL LOCATION

Genetic locus: FBL (human) mapping to 19q13.2; Fbl (mouse) mapping to 7 A3.

SOURCE

Fibrillarin (G-4) is a mouse monoclonal antibody raised against amino acids 61-200 of Fibrillarin 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.

Fibrillarin (G-4) is available conjugated to agarose (sc-166021 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-166021 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166021 PE), fluorescein (sc-166021 FITC), Alexa Fluor® 488 (sc-166021 AF488), Alexa Fluor® 546 (sc-166021 AF546), Alexa Fluor® 594 (sc-166021 AF594) or Alexa Fluor® 647 (sc-166021 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166021 AF680) or Alexa Fluor® 790 (sc-166021 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

Fibrillarin (G-4) is recommended for detection of Fibrillarin 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), immunohistochemistry (including paraffin-embedded sections) (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 Fibrillarin siRNA (h): sc-37883, Fibrillarin siRNA (m): sc-37884, Fibrillarin shRNA Plasmid (h): sc-37883-SH, Fibrillarin shRNA Plasmid (m): sc-37884-SH, Fibrillarin shRNA (h) Lentiviral Particles: sc-37883-V and Fibrillarin shRNA (m) Lentiviral Particles: sc-37884-V.

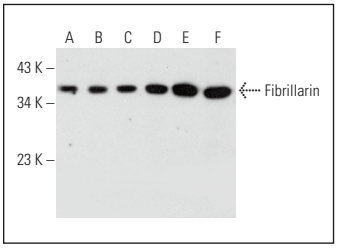
Molecular Weight of Fibrillarin: 36 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, JAR cell lysate: sc-2276 or PC-12 cell lysate: sc-2250.

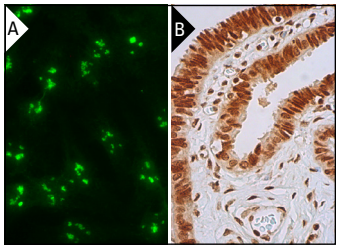
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Fibrillarin (G-4): sc-166021. Western blot analysis of Fibrillarin expression in HeLa (**A**), JAR (**B**), NIH/3T3 (**C**), c4 (**D**), A-10 (**E**) and PC-12 (**F**) whole cell lysates.



Fibrillarin (G-4): sc-166021. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nucleolar localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing nuclear staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Ye, M., et al. 2015. STIP is a critical nuclear scaffolding protein linking USP7 to p53-MDM2 pathway regulation. Oncotarget 6: 34718-34731.
2. Han, X.R., et al. 2020. $CRL4^{DCAF1/VprBP}$ E3 ubiquitin ligase controls ribosome biogenesis, cell proliferation, and development. Sci. Adv. 6: eabd6078.
3. Tsai, H.I., et al. 2021. NF45/NF90-mediated rDNA transcription provides a novel target for immunosuppressant development. EMBO Mol. Med. 13: e12834.
4. Suzuki, H., et al. 2021. Proline-arginine poly-dipeptide encoded by the C9orf72 repeat expansion inhibits adenosine deaminase acting on RNA. J. Neurochem. 158: 753-765.
5. Kasu, Y.A.T., et al. 2022. BAG6 prevents the aggregation of neurodegeneration-associated fragments of TDP43. iScience 25: 104273.

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.