

Fibrillarin (B-1): sc-166001

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 (B-1) is a mouse monoclonal antibody raised against amino acids 61-200 of Fibrillarin of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Fibrillarin (B-1) is available conjugated to agarose (sc-166001 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166001 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166001 PE), fluorescein (sc-166001 FITC), Alexa Fluor® 488 (sc-166001 AF488), Alexa Fluor® 546 (sc-166001 AF546), Alexa Fluor® 594 (sc-166001 AF594) or Alexa Fluor® 647 (sc-166001 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166001 AF680) or Alexa Fluor® 790 (sc-166001 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Fibrillarin (B-1) 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.

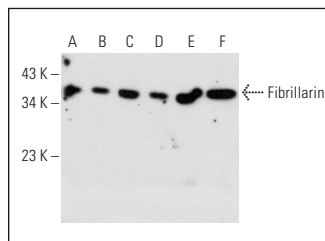
Molecular Weight of Fibrillarin: 36 kDa.

Positive Controls: c4 whole cell lysate: sc-364186, JAR cell lysate: sc-2276 or HeLa whole cell lysate: sc-2200.

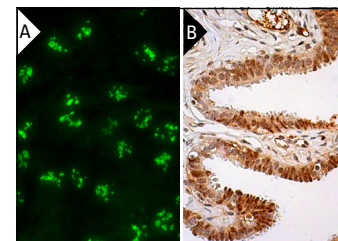
STORAGE

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

DATA



Fibrillarin (B-1): sc-166001. Western blot analysis of Fibrillarin expression in HeLa (A), JAR (B), c4 (C), I-13.35 (D), A-10 (E) and PC-12 (F) whole cell lysates.



Fibrillarin (B-1): sc-166001. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nucleolar localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing nucleolar and nuclear staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Hasegawa, Y., et al. 2014. Spatiotemporal distribution of SUMOylation components during mouse brain development. *J. Comp. Neurol.* 522: 3020-3036.
- Wandrey, F., et al. 2015. The NF45/NF90 heterodimer contributes to the biogenesis of 60S ribosomal subunits and influences nucleolar morphology. *Mol. Cell. Biol.* 35: 3491-3503.
- Woolnough, J.L., et al. 2016. The regulation of rRNA gene transcription during directed differentiation of human embryonic stem cells. *PLoS ONE* 11: e0157276.
- Ianni, A., et al. 2017. Sirt7 stabilizes rDNA heterochromatin through recruitment of DNMT1 and Sirt1. *Biochem. Biophys. Res. Commun.* 492: 434-440.
- Fu, Y., et al. 2018. Nuclear RNR-α antagonizes cell proliferation by directly inhibiting ZRANB3. *Nat. Chem. Biol.* 14: 943-954.
- Bianco, C. and Mohr, I. 2019. Ribosome biogenesis restricts innate immune responses to virus infection and DNA. *Elife* 8: e49551.
- Simonet, N.G., et al. 2020. SirT7 auto-ADP-ribosylation regulates glucose starvation response through mH2A1. *Sci. Adv.* 6: eaaz2590.
- Yan, Y., et al. 2020. The deubiquitinase USP36 regulates DNA replication stress and confers therapeutic resistance through PrimPol stabilization. *Nucleic Acids Res.* 48: 12711-12726.
- Houston, R., et al. 2020. Acetylation-mediated remodeling of the nucleolus regulates cellular acetyl-CoA responses. *PLoS Biol.* 18: e3000981.
- Liang, J., et al. 2021. Comparison of proteomic profiles from the testicular tissue of males with impaired and normal spermatogenesis. *Syst. Biol. Reprod. Med.* 67: 127-136.

RESEARCH USE

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