

Fibrillarin (F-6): sc-166000

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.

REFERENCES

1. Ochs, R.L., et al. 1985. Fibrillarin: a new protein of the nucleolus identified by autoimmune sera. *Biol. Cell* 54: 123-133.
2. Aris, J.P., et al. 1991. cDNA cloning and sequencing of human Fibrillarin, a conserved nucleolar protein recognized by autoimmune antisera. *Proc. Natl. Acad. Sci. USA* 88: 931-935.
3. Jansen, R.P., et al. 1991. Evolutionary conservation of the human nucleolar protein Fibrillarin and its functional expression in yeast. *J. Cell Biol.* 113: 715-729.

CHROMOSOMAL LOCATION

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

SOURCE

Fibrillarin (F-6) is a mouse monoclonal antibody raised against amino acids 61-200 of Fibrillarin 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.

APPLICATIONS

Fibrillarin (F-6) 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) 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.

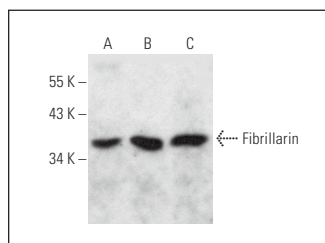
Molecular Weight of Fibrillarin: 36 kDa.

Positive Controls: c4 whole cell lysate: sc-364186, PC-12 cell lysate: sc-2250 or A-10 cell lysate: sc-3806.

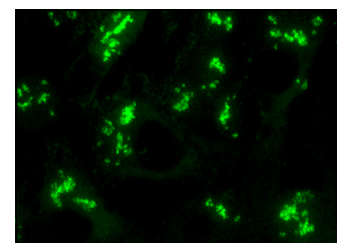
RECOMMENDED SUPPORT REAGENTS

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



Fibrillarin (F-6): sc-166000. Western blot analysis of Fibrillarin expression in c4 (A), A-10 (B) and PC-12 (C) whole cell lysates.



Fibrillarin (F-6): sc-166000. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nucleolar localization.

SELECT PRODUCT CITATIONS

1. Zhang, Y.S., et al. 2015. A novel function of nuclear nonmuscle myosin regulatory light chain in promotion of xanthine oxidase transcription after myocardial ischemia/reperfusion. *Free Radic. Biol. Med.* 83: 115-128.
2. Li, Y., et al. 2016. Nucleolar localization of small G protein RhoA is associated with active RNA synthesis in human carcinoma HEP-2 cells. *Oncol. Lett.* 11: 3605-3610.
3. de Pauli, L.F., et al. 2017. Differential expression of the nucleolar protein fibrillarin during mammalian spermatogenesis and its probable association with chromatoid body components. *Micron* 94: 37-45.
4. Xu, Z., et al. 2018. Checkpoint suppressor 1 suppresses transcriptional activity of ERα and breast cancer cell proliferation via deacetylase SIRT1. *Cell Death Dis.* 9: 559.

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.



See **Fibrillarin (G-8): sc-374022** for Fibrillarin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.