SANTA CRUZ BIOTECHNOLOGY, INC.

Fibrillarin (N-15): sc-11334

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The Power to Question

BACKGROUND

Fibrillarin is a widely occurring, basic, non-histone 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. and Blobel, G. 1991. cDNA cloning and sequencing of human Fibrillarin, a conserved nucleolar protein recognized by autoimmune anti-sera. 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.
4. Scheer, U. and Hock, R. 1999. Structure and function of the nucleolus. Curr. Opin. Cell Biol. 11: 385-390.
5. Olson, M.O.J., et al. 2000. The nucleolus: an old factory with unexpected capabilities. Trends. Cell Biol. 10: 189-196.
6. Phair, R.D., and Mistell, T. 2000. High mobility of proteins in the mammalian cell nucleus. Nature 404: 604-609.
7. Newton, K., et al. 2003. Fibrillarin is essential for early development and required for accumulation of an intron-encoded small nucleolar RNA in the mouse. Mol. Cell. Biol. 23: 8519-8527.
8. Deng, L., et al. 2004. Structure determination of Fibrillarin from the hyperthermophilic archaeon *Pyrococcus furiosus*. Biochem. Biophys. Res. Commun. 315: 726-732.

CHROMOSOMAL LOCATION

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

SOURCE

Fibrillarin (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Fibrillarin of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-11334 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Fibrillarin (N-15) is recommended for detection of Fibrillarin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Fibrillarin (N-15) is also recommended for detection of Fibrillarin in additional species, including canine, bovine and porcine.

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: K-562 whole cell lysate: sc-2203, Hep G2 cell lysate: sc-2227 or MOLT-4 nuclear extract: sc-2151.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Jaglarz, M.K., Bilinski, S.M. and Kloc, M. 2005. Assembly and breakdown of Cajal bodies in accessory nuclei of Hymenoptera. Differentiation 73: 99-108.

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.

PROTOCOLS

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