

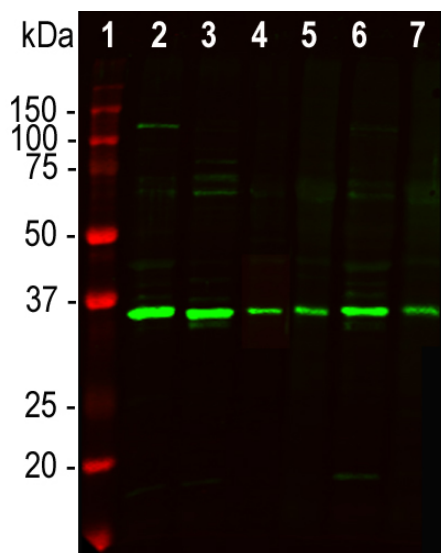
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**HGNC Name:** FBL  
**UniProt:** P22087  
**RRID:** AB\_2744517  
**Immunogen:** Full length human fibrillarin expressed in and purified from E.Coli  
**Format:** Affinity purified antibody at 1 mg/mL in 50% PBS, 50% glycerol, plus 5mM NaH<sub>2</sub>PO<sub>4</sub>  
**Storage:** Store at 4°C for short term, For longer term store at -20°C.  
**Recommended dilutions:**  
Western blot: 1:2,000-1:5,000. ICC/IF: 1:2,000-1:5,000.

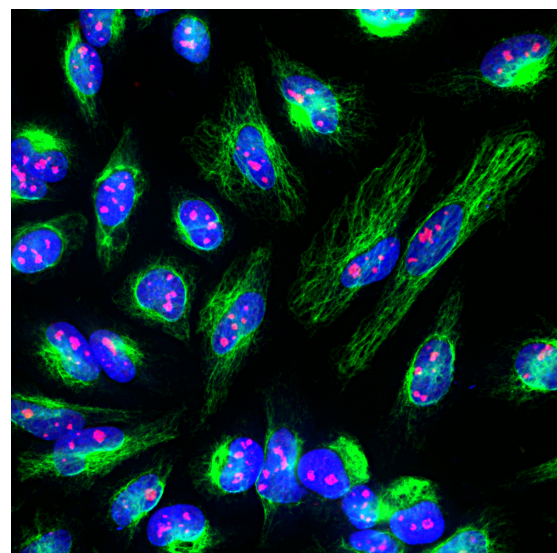
### References:

1. Aris JP and Blobel G. Identification and characterization of a yeast nucleolar protein that is similar to a rat liver nucleolar protein. *J. Cell Biol.* 107:17-31 (1988).
2. Aris JP and Blobel G. cDNA cloning and sequencing of human fibrillarin, a conserved nucleolar protein recognized by autoimmune antisera. *Proc. Natl. Acad. Sci.* 88:931-5 (1991).
3. Ochs RL, Lischwe MA, Spohn WH, Busch H. Fibrillarin: a new protein of the nucleolus identified by autoimmune sera. *Biol. Cell.* 54:123-33 (1985).
4. Newton K, Petfalski E, Tollervey D, Caceres JF. Fibrillarin is essential for early development and required for accumulation of an intron-encoded small nucleolar RNA in the mouse. *Mol. Cell Biol.* 23:8519-27 (2003).
5. Okano Y, Steen VD, Medsger TA. Autoantibody to U3 nucleolar ribonucleoprotein (fibrillarin) in patients with systemic sclerosis. *Arth. Rheum.* 35:95-100 (1992).

Applications	Host	Isotype	Molecular Wt.	Species Cross-Reactivity
Western blot, ICC/IF, IHC, IP	Rabbit		34.5kDa	Human, Rat, Mouse, Horse, Dog



Western blot analysis of cell lysates using rabbit pAb to fibrillarin RPCA-Fib, dilution 1:5,000, in green: [1] protein standard (red), [2] NIH-3T3, [3] HEK293, [4] HeLa, [5] SH-SY5Y, [6] C6, and [7] COS1 cells. The strong band at ~35kDa corresponds to the fibrillarin protein.



Immunofluorescent analysis of HeLa cells stained with rabbit pAb to fibrillarin, RPCA-Fib, dilution 1:5,000, in red, and costained with chicken pAb to vimentin, CPCA-Vim, dilution 1:10,000 in green. The blue is Hoechst staining of nuclear DNA. The CPCA-Fib antibody detects protein expressed in nucleoli of cells, while the vimentin antibody produces strong staining of cytoplasmic intermediate filaments.

### Background:

Fibrillarin is a highly conserved component of a nucleolar small ribonucleoprotein complex in mammals, involved in the processing of ribosomal RNA during ribosomal biogenesis. The protein runs at ~35kDa on SDS-PAGE and is very rich in basic amino acids having a PI of 9.8. Fibrillarin was originally identified in humans since autoantibodies staining nucleoli were seen in some patients with the autoimmune disease scleroderma (1). Subsequently the protein fibrillarin was found to be the human homologue of Nop1p, a *Saccharomyces cerevisiae* nucleolar protein, the two proteins being 67% identical (2,3). We have generated an alignment of the sequences of fibrillarin and homologues downloadable from [here](#). The fibrillarin molecule consists of an N-terminal glycine and arginine rich region followed by a highly conserved globular domain. Embryonic knockout of the fibrillarin gene in mice is lethal, suggesting fundamental importance of this protein (4). Autoantibodies to fibrillarin are also seen in patients with the autoimmune disease systemic sclerosis (5).

The RPCA-Fib antibody was made against recombinant human fibrillarin expressed in and purified from *E. coli* and is superior on western blots of mammalian samples to the widely used MCA-38F3 antibody, which was originally raised against yeast Nop1p and later found to recognize fibrillarin, the mammalian homologue of the yeast protein. However MCA-38F3 has been documented to be usable as a marker of nucleoli in a wide variety of species which has not so far been documented with this reagent. RPCA-Fib works well as a marker of nucleoli on mammalian cells grown in culture and in sections including formalin fixed and paraffin embedded material, see under "Additional Info" tag for details. We have also produced a chicken polyclonal antibody to fibrillarin CPCA-Fib and an alternate mouse monoclonal MCA-4A4, both made against recombinant human fibrillarin.

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### Abbreviation Key:

mAb—Monoclonal Antibody pAb—Polyclonal Antibody WB—Western Blot IF—Immunofluorescence ICC—Immunocytochemistry  
IHC—Immunohistochemistry E—ELISA Hu—Human Mo—Monkey Do—Dog Rt—Rat Ms—Mouse Co—Cow Pi—Pig Ho—Horse Ch—Chicken  
Dr—D. rerio Dm—D. melanogaster Sm—S. mutans Ce—C. elegans Sc—S. cerevisiae Sa—S. aureus Ec—E. coli.