

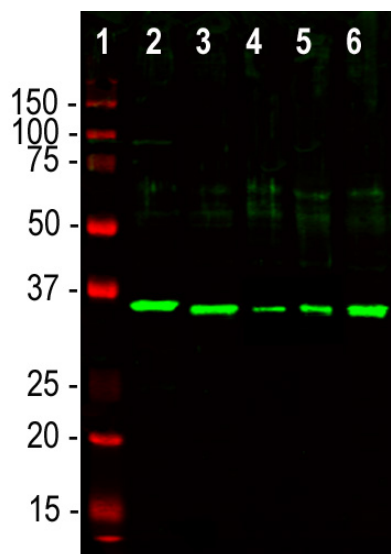
Ordering Information
 Web www.encorbio.com
 Email admin@encorbio.com
 Phone 352-372-7022
 Fax 352-372-7066

HGNC Name: FBL
UniProt: P22087
RRID: AB_2572216
Immunogen: Full length human fibrillarin expressed in and purified from *E. coli*.
Format: Concentrated IgY preparation in PBS plus 0.02% NaH₃
Storage: Store at 4°C
Recommended dilutions:
 WB: 1:2,000-1:5,000. IF/ICC: 1:2,000-1:5,000. IHC not recommended

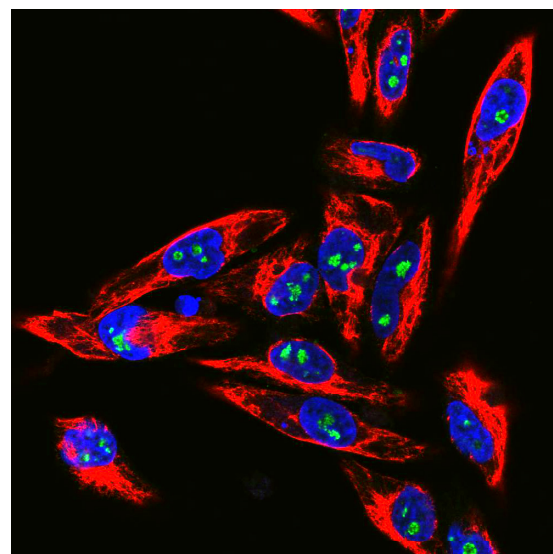
References:

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
WB, IF/ICC, IHC	Chicken		34.5kDa	Hu, Rt, Ms, Do, Ho



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



Confocal immunofluorescent analysis of HeLa cells stained with chicken pAb to fibrillarin, CPCA-fib, dilution 1:10,000 in green and costained with mouse mAb to vimentin, MCA-2D1, 1:1,000, in red. The blue signal is DAPI staining of nuclear DNA. The fibrillarin antibody stains nucleoli while the vimentin antibody binds to 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 CPCA-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. The chicken antibody works well for IF and ICC but is not recommended for IHC. We have also produced a rabbit polyclonal antibody to fibrillarin RPCA-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.