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Fibrillarin Antibody

Rabbit mAb
Catalog # AP90515

Product Information

Application	WB, IHC, IF, FC, ICC, IP, IHF
Primary Accession	P22087
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	FBL;FIB;FLRN;RNU3IP1;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	33784

Additional Information

Dilution	WB 1:500~1:2000 IHC 1:50~1:100 ICC/IF 1:50~1:100 IP : 1:30 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Fibrillarin
Description	Fibrillarin is a 2'-O-methyltransferase located in fibrillar regions and Cajal bodies of the nucleolus, where RNA transcription and pre-RNA processing take place. Fibrillarin associates with several other structual proteins as well as box C/D snoRNA to form a complex that functions in pre-rRNA processing, pre-rRNA methylation and ribosome assembly. This complex catalyzes site-specific 2'-O-ribose methylation of targeted nucleotides within the rRNA sequence. The sequence, structure and function of fibrillarin are highly conserved and fibrillarin gene expression is essential for early embryonic development.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

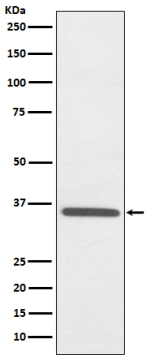
Name	FBL (HGNC:3599)
Synonyms	FIB1, FLRN
Function	S-adenosyl-L-methionine-dependent methyltransferase that has the ability to methylate both RNAs and proteins (PubMed:24352239, PubMed:30540930, PubMed:32017898). Involved in pre-rRNA processing by catalyzing the site-specific 2'-hydroxyl methylation of ribose moieties in pre-ribosomal RNA (PubMed:30540930). Site specificity is provided by a guide RNA that base pairs with the substrate (By similarity). Methylation occurs at a characteristic distance from the sequence involved in base pairing with the guide RNA (By similarity). Probably catalyzes 2'-O-methylation of U6 snRNAs in box C/D RNP

complexes (PubMed:32017898). U6 snRNA 2'-O-methylation is required for mRNA splicing fidelity (PubMed:32017898). Also acts as a protein methyltransferase by mediating methylation of 'Gln-105' of histone H2A (H2AQ104me), a modification that impairs binding of the FACT complex and is specifically present at 35S ribosomal DNA locus (PubMed:24352239, PubMed:30540930). Part of the small subunit (SSU) processome, first precursor of the small eukaryotic ribosomal subunit. During the assembly of the SSU processome in the nucleolus, many ribosome biogenesis factors, an RNA chaperone and ribosomal proteins associate with the nascent pre-rRNA and work in concert to generate RNA folding, modifications, rearrangements and cleavage as well as targeted degradation of pre-ribosomal RNA by the RNA exosome (PubMed:34516797).

Cellular Location

Nucleus, nucleolus. Nucleus, nucleoplasm {ECO:0000250|UniProtKB:P35550}. Note=Fibrillar region of the nucleolus

Images



Western blot analysis of Fibrillarin expression in HepG2 cell lysate.

Image not found : 202311/AP90515-IHC.jpg

Immunohistochemical analysis of paraffin-embedded human testis, using Fibrillarin Antibody.

Image not found : 202311/AP90515-IF.jpg

Immunofluorescent analysis of Hela cells, using Fibrillarin Antibody .

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