

FBL Antibody (Center E120) Blocking Peptide Synthetic peptide Catalog # BP2776c

Specification

FBL Antibody (Center E120) Blocking Peptide - Product Information

Primary Accession

<u>P22087</u>

FBL Antibody (Center E120) Blocking Peptide - Additional Information

Gene ID 2091

Other Names rRNA 2'-O-methyltransferase fibrillarin, 211-, 34 kDa nucleolar scleroderma antigen, Histone-glutamine methyltransferase, FBL, FIB1, FLRN

Target/Specificity

The synthetic peptide sequence used to generate the antibody AP2776c was selected from the Center region of human FBL. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

FBL Antibody (Center E120) Blocking Peptide - Protein Information

Name FBL (<u>HGNC:3599</u>)

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:<a href="http://www.uniprot.org/citations/32017898"

target="_blank">32017898). U6 snRNA 2'-O-methylation is required for mRNA splicing fidelity (PubMed:<a href="http://www.uniprot.org/citations/32017898"

target="_blank">32017898). Also acts as a protein methyltransferase by mediating methylation of 'GIn-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

FBL Antibody (Center E120) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

<u>Blocking Peptides</u>

FBL Antibody (Center E120) Blocking Peptide - Images

FBL Antibody (Center E120) Blocking Peptide - Background

FBL is a component of a nucleolar small nuclear ribonucleoprotein (snRNP) particle thought to participate in the first step in processing preribosomal RNA. It is associated with the U3, U8, and U13 small nuclear RNAs and is located in the dense fibrillar component (DFC) of the nucleolus. This protein contains an N-terminal repetitive domain that is rich in glycine and arginine residues, like fibrillarins in other species. Its central region resembles an RNA-binding domain and contains an RNP consensus sequence. Antisera from approximately 8% of humans with the autoimmune disease scleroderma recognize fibrillarin.

FBL Antibody (Center E120) Blocking Peptide - References

Amin,M.A., Biochem. Biophys. Res. Commun. 360 (2), 320-326 (2007)Dunphy,J.L., Traffic 8 (6), 661-672 (2007)