

Mouse anti-Human, rat Fibrillarin Monoclonal Antibody | anti-NOP1 antibody

Anti-Fibrillarin (Nop1p)

CATALOG # AAA72745	HOST Mouse	REACTIVITY Human, rat	APPLICATIONS Immunofluorescence, Western Blot
------------------------------	----------------------	---------------------------------	---

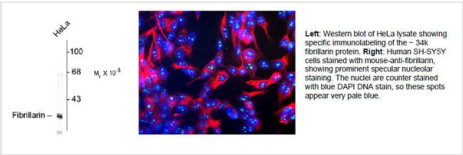
PRODUCT SYNONYMS

Fibrillarin; Monoclonal Antibody; Anti-Fibrillarin (Nop1p); anti-NOP1 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human, rat
Clonality	Monoclonal
Isotype	IgG1
Clone Number	38F3
Specificity	Specific for the ~34k Fibrillarin protein in Western Blots of human, rat, plant, Drosophila, C. elegans and S. pombe. It is expected that it will work on other mammal tissues.
Purity/Purification	Total IgG fraction
Form/Format	Liquid. Contains 10 mM sodium azide.
Sequence Length	327
Applicable Applications for anti-NOP1 antibody	IF (Immunofluorescence), WB (Western Blot)
Antigen	Yeast nuclear preparations.
Immunogen Information	Yeast nuclear preparations
Immunogen Species	Yeast
Packing	100ul antibody per vial+10 mM NaN3. Adequate amount of material to conduct 10-mini Western Blots.
Species Reactivity Note	The antibody has been directly tested for reactivity in human, rat, plant, Drosophila, C. elegans and S. pombe. It is expected that it will work on other mammal tissues.
Biological Significance	Nop1p was originally identified as a nucleolar protein of bakers yeast, <i>Saccharomyces cerevisiae</i> . The Nop1p protein is 327 amino acids in size (34.5kDa), is essential for yeast viability, and is localized in the nucleoli (1). The systematic name for <i>S. cerevisiae</i> Nop1 is YDL014W, and it is now known to be part of the small subunit processome complex, involved in the processing of pre-18S ribosomal RNA. Nop1p is the yeast homologue of a protein found in all eukaryotes and archaea generally called fibrillarin (2). Fibrillarin/Nop1p is extraordinarily conserved, so that the yeast and human proteins are 67% identical, and the human protein can functionally replace the yeast protein. Patients with the autoimmune disease scleroderma often have strong circulating autoantibodies to a ~34kDa protein which was subsequently found to be fibrillarin. Recent studies show that knock-out of the fibrillarin gene in mice results in embryonic lethality, although mice with only one functional fibrillarin/Nop1p gene were viable (3). This antibody is becoming widely used as a convenient marker for nucleoli in a wide variety of species (e.g. 4-6).
Preparation and Storage	Store at -20 degree C: stable for at least 1 year.

IMAGES



Application Data

ADDITIONAL INFORMATION

Related Product Information for anti-NOP1 antibody	Mouse monoclonal antibody
References	• Ochs RL, Lischwe MA, Spohn WH, Busch H. Fibrillarin: a new protein of the nucleolus identified by autoimmune sera. Biol Cell 54:123-133 (1985). • 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). • 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. 23:8519-8527 (2003). • Tyagi S and Alsmadi O. Imaging native beta-actin mRNA in motile fibroblasts. Biophys J. 87:4153-62 (2004). • Paeschke1 K, Simonsson T, Postberg J, Rhodes D, Lipps H-J. Telomere end-binding proteins control the formation of G-quadruplex DNA structures in vivo Nature Structural & Molecular Biology 12, 847-854 (2005).

NCBI AND UNIPROT INFORMATION

NCBI GI #	6320190
NCBI GeneID	851548
NCBI Accession #	NP_010270.1
NCBI GenBank Nucleotide #	NM_001180073.1
UniProt Accession #	P15646; P89890; D6VRX5
NCBI Official Full Name	Nop1p
NCBI Official Symbol	NOP1
NCBI Official Synonym Symbols	LOT3
NCBI Protein Information	Nop1p
UniProt Protein Name	rRNA 2'-O-methyltransferase fibrillarin
UniProt Gene Name	NOP1
UniProt Synonym Gene Names	LOT3; Nucleolar protein 1
UniProt Entry Name	FBRL_YEAST

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.