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Product datasheet for AM08249PU-N

NOP1 Mouse Monoclonal Antibody [Clone ID: 38F3]

Product data:

Product Type:	Primary Antibodies
Clone Name:	38F3
Applications:	IF, IHC, WB
Recommended Dilution:	**Western Blot:** 1/1,000. **Immunofluorescence:** 1/500. **Immunohistochemistry.**
Reactivity:	C. elegans, Drosophila, Human, Plant, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Yeast nuclear preparations.
Specificity:	Specific for the ~34kDa Fibrillarin /Nop1p protein. This antibody is becoming widely used as a convenient marker for nucleoli in a wide variety of species (e.g. 4-6).
Formulation:	State: Ig Fraction State: Liquid Total IgG fraction Preservative: 10 mM Sodium Azide
Conjugation:	Unconjugated
Storage:	Upon receipt, store (in aliquots) at -20°C to -80°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Database Link:	P15646

View online »

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Background: Nop1p was originally identified as a nucleolar protein of bakers yeast, Saccharomyces cerevisiae. 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 S. cerevisiae 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 archea 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).

Synonyms: FIB1, FLRN, Fibrillarin, RNU3IP1, NOP1, LOT3, Nucleolar protein 1, Nucleolar Marker

Product images:

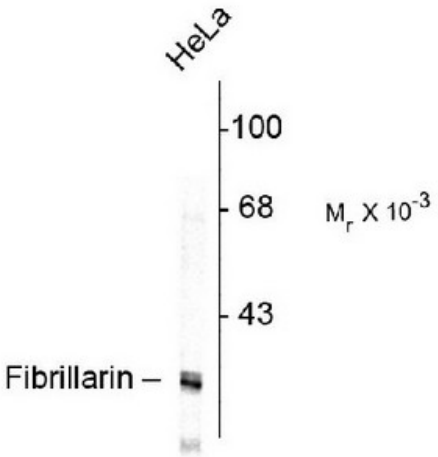

Figure 1. Western blot of HeLa lysate showing specific immunolabeling of the ~ 34k Fibrillarin protein.

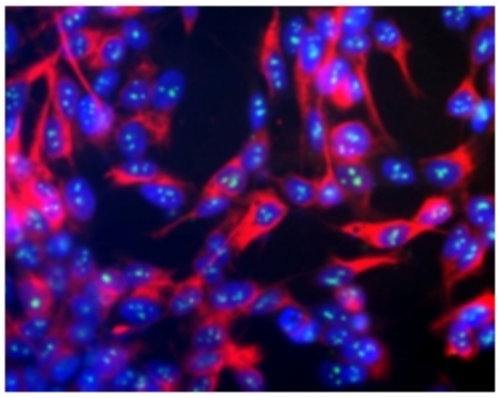

Figure 2. Human SH-SY5Y cells stained with mouse-anti-Fibrillarin, showing prominent specular nucleolar staining. The nuclei are counter stained with blue DAPI DNA stain, so these spots appear very pale blue.

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