

EMG1 Antibody / EMG1 N1-specific pseudouridine methyltransferase Antibody (FY13608)

Catalog No.	Formulation	Size
FY13608	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

[Bulk quote request](#)

Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
UniProt	Q92979
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Immunofluorescence : 5ug/ml ELISA : 0.1-0.5 ug/ml
Limitations	This EMG1 Antibody / EMG1 N1-specific pseudouridine methyltransferase Antibody is supplied exclusively for research use.

EMG1 Antibody by IF in HeLa cells. Immunofluorescence staining of HeLa cells using EMG1 N1-specific pseudouridine methyltransferase Antibody reveals prominent green nuclear and nucleolar-region staining with red cytoplasmic alpha-tubulin. Target immunoreactivity is shown in green, with alpha-tubulin labeling in red. The cells underwent enzyme-based antigen retrieval, blocking with 10% goat serum, and overnight primary antibody incubation at 5 ug/mL at 4oC. Fluorescent secondary antibodies were applied at 1:500 before microscopy.

EMG1 Antibody by IHC in human lung carcinoma. Immunohistochemistry of paraffin-embedded human lung carcinoma using EMG1 N1-specific pseudouridine methyltransferase Antibody shows brown immunoreactivity in tumor epithelial cells, with variable nuclear and cytoplasmic distribution. Following heat-mediated antigen retrieval in EDTA buffer (pH 8.0), tissue sections were blocked with 10% goat serum and incubated with primary antibody at 2 ug/mL overnight at 4oC. Immunoreactivity was visualized with an HRP-conjugated secondary antibody and DAB chromogen; hematoxylin counterstaining identifies tissue nuclei.

EMG1 Antibody by WB in human and rodent samples. Western blot analysis using EMG1 N1-specific pseudouridine methyltransferase Antibody detects a prominent band consistent with the expected molecular weight of approximately 27 kDa in human 293T (lane 1), HeLa (lane 2), Caco-2 (lane 3), rat thymus (lane 4), RH35 (lane 5), mouse thymus (lane 6), and NIH/3T3 (lane 7). Reduced lysates containing 30 ug protein per lane were separated by 12% SDS-PAGE and transferred to nitrocellulose. Following blocking with 5% nonfat milk, the membrane was incubated with primary antibody at 0.5 ug/mL overnight at 4oC. Bound antibody was detected using an HRP-conjugated secondary antibody and chemiluminescence.

Description

EMG1 Antibody / EMG1 N1-specific pseudouridine methyltransferase Antibody recognizes EMG1, a protein with important roles in cellular physiology. EMG1 is a conserved nucleolar protein involved in small ribosomal subunit biogenesis. It participates in maturation of the 18S ribosomal RNA component of the 40S subunit and belongs to a family of RNA-modifying proteins. Ribosome assembly requires coordinated transcription, processing, chemical modification, and folding of precursor ribosomal RNA together with the ordered recruitment of ribosomal proteins and assembly factors.

EMG1 is associated with the early steps of small-subunit maturation in the nucleolus. It is commonly described as an N1-specific pseudouridine methyltransferase because it catalyzes methylation of a pseudouridine residue in small-subunit ribosomal RNA. The protein also has an essential structural role in pre-ribosomal particle maturation, and defects in its function can disrupt production of functional ribosomes even when individual biochemical steps are considered separately. EMG1 N1-specific pseudouridine methyltransferase Antibody is a useful designation for this molecular target.

Pathogenic variants in EMG1 are associated with Bowen-Conradi syndrome, a rare autosomal recessive disorder characterized by severe growth and developmental abnormalities. The relationship between EMG1 dysfunction and disease highlights the sensitivity of developing tissues to disturbances in ribosome assembly. Impaired small-subunit maturation can affect protein synthesis capacity and contribute to broad physiological consequences rather than a defect in one downstream protein.

EMG1 illustrates the connection between RNA modification and the complex quality-control mechanisms that govern ribosome production. Its activity is embedded within the nucleolar network of processing factors that transform precursor RNA into mature ribosomal subunits. Understanding EMG1 biology is therefore relevant to fundamental mechanisms of gene expression, ribosomopathies, and cellular growth. NSJ Bioreagents provides EMG1 Antibody for research into the molecular biology of EMG1. An EMG1 Antibody supports investigation of the biological processes associated with this protein.

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Application Notes

The appropriate working dilution of the EMG1 Antibody / EMG1 N1-specific pseudouridine methyltransferase Antibody should be optimized by the end user.

Immunogen

The EMG1 Antibody was generated using e. coli-derived human EMG1 recombinant protein (amino acids E53-E239).

Storage

Once reconstituted, refrigerate the EMG1 Antibody at 4oC for no longer than one month. For extended storage, freeze aliquots at -20oC for up to six months and avoid repeated freeze-thaw cycles.

Alternate Names

EMG1 antibody, Ribosomal RNA small subunit methyltransferase NEP1 antibody, EMG1 N1-specific pseudouridine methyltransferase antibody, NEP1 antibody, Grcc2f antibody, EC:2.1.1.- antibody, C2F antibody, 18S rRNA Psi1248 methyltransferase antibody