10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

EMG1 Rabbit pAb

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Catalog # AP55630

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q92979
Predicted	Rat, Pig, Dog, Human, Mouse, Rabbit, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	26720
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human EMG1
Epitope Specificity	51-150/244
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus > nucleolus.
DISEASE	Defects in EMG1 are the cause of Bowen-Conradi syndrome (BWCNS) [MIM:211180]. BWCNS is a combination of malformations characterized in newborns by low birth weight, microcephaly, mild joint restriction, a prominent nose, micrognathia, fifth finger clinodactyly, and 'rocker-bottom' feet. The syndrome is transmitted as an autosomal recessive trait. The prognosis is poor, with all infants dying within the first few months of life.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes an essential, conserved eukaryotic protein involved in ribosome biogenesis. In yeast, the related protein is a component of the small subunit processome and is essential for biogenesis of the ribosomal 40S subunit. A mutation in this gene has been associated with Bowen-Conradi syndrome.[provided by RefSeq, May 2010]

Additional Information

Gene ID	10436
Other Names	Ribosomal RNA small subunit methyltransferase NEP1, 2.1.1.-, 18S rRNA (pseudouridine(1248)-N1)-methyltransferase, 18S rRNA Psi1248 methyltransferase, Nucleolar protein EMG1 homolog, Protein C2f, Ribosome biogenesis protein NEP1, EMG1 {ECO:0000303|PubMed:19463982}
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

is stable for at least two weeks at 2-4 °C.

Protein Information

Name	EMG1 {ECO:0000303|PubMed:19463982}
Function	S-adenosyl-L-methionine-dependent pseudouridine N(1)- methyltransferase that methylates pseudouridine at position 1248 (Psi1248) in 18S rRNA (PubMed:20047967, PubMed:27798105). Involved the biosynthesis of the hypermodified N1-methyl-N3-(3-amino-3- carboxypropyl) pseudouridine (m1acp3-Psi) conserved in eukaryotic 18S rRNA. Is not able to methylate uridine at this position (PubMed:20047967). Also has an essential role in 40S ribosomal subunit biogenesis independent on its methyltransferase activity, facilitating the incorporation of ribosomal protein S19 during the formation of pre- ribosomes (By similarity). 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. Note=Nuclear import can be mediated by the KPNB1/IMP7 importin heterodimer

Background

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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.