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NSUN4 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP57537

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q96CB9
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	43089

Additional Information

Gene ID	387338
Other Names	5-methylcytosine rRNA methyltransferase NSUN4, 2.1.1.-, NOL1/NOP2/Sun domain family member 4, NSUN4
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=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	NSUN4 {ECO:0000303|PubMed:21531335, ECO:0000312|HGNC:HGNC:31802}
Function	Mitochondrial RNA cytosine C(5)-methyltransferase that methylates cytosine to 5-methylcytosine (m5C) in various RNAs, such as rRNAs, mRNAs and some long non-coding RNAs (lncRNAs) (PubMed:21531335, PubMed:23022348, PubMed:39019044). Involved in mitochondrial ribosome small subunit (SSU) maturation by catalyzing methylation of mitochondrial 12S rRNA; the function is independent of MTERFD2/MTERF4 and assembled mitochondrial ribosome large subunit (LSU) (PubMed:21531335, PubMed:23022348). Targeted to LSU by MTERFD2/MTERF4 and probably is involved in a final step in ribosome biogenesis to ensure that SSU and LSU are assembled (PubMed:21531335, PubMed:23022348). In vitro can methylate 16S rRNA of the LSU; the methylation is enhanced by MTERFD/MTERF4 (PubMed:23022348). Also acts as a regulator of innate immunity by marking double-stranded mitochondrial RNAs(mt-dsRNAs) generated in response to stress: catalyzes m5C modification on mitochondrial RNAs, such as a mRNAs and lncRNAs, with a preference for the termini of light-strand lncRNAs, promoting their degradation and cytosolic release (PubMed:39019044). Modified light-strand

	lncRNAs are then recognized by C1QBP reader and recruited to the mitochondrial degradosome complex, which promotes their degradation (PubMed:39019044).
Cellular Location	Mitochondrion

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