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METTL8 Rabbit pAb

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Catalog # AP57277

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9H825
Predicted	Rat, Pig, Dog, Human, Mouse, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	33387
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human METTL8
Epitope Specificity	1-100/291
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	Cytoplasmic and Nuclear
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	METTL8 is a 291 amino acid cytoplasmic and nuclear protein that exists as multiple alternatively spliced isoforms and is thought to function as a methyltransferase. METTL8 is a member of the methyltransferase superfamily, which includes DNA methyltransferases (Dnmt), histone methyltransferases, catechol-O-methyl transferases and many others. Members of the methyltransferase superfamily have enzymatic activity that results in the transfer of a methyl group to and from DNA, RNA or amino acids. METTL8 is encoded by a gene located on human chromosome 2, which houses over 1,400 genes and comprises nearly 8% of the human genome.

Additional Information

Gene ID	79828
Other Names	tRNA N(3)-cytidine methyltransferase METTL8, mitochondrial, 2.1.1.-, Methyltransferase-like protein 8, mRNA N(3)-methylcytidine methyltransferase METTL8, 2.1.1.-, METTL8 {ECO:0000303|PubMed:28655767, ECO:0000312|HGNC:HGNC:25856}
Dilution	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	METTL8 {ECO:0000303|PubMed:28655767, ECO:0000312|HGNC:HGNC:25856}
Function	Mitochondrial S-adenosyl-L-methionine-dependent methyltransferase that mediates N(3)-methylcytidine modification of residue 32 of the tRNA anticodon loop of mitochondrial tRNA(Ser)(UCN) and tRNA(Thr) (PubMed:34774131, PubMed:35017528). N(3)-methylcytidine methylation modification regulates mitochondrial translation efficiency and is required for activity of the respiratory chain (PubMed:34774131, PubMed:35017528). N(3)-methylcytidine methylation of mitochondrial tRNA(Ser)(UCN) requires the formation of N(6)- dimethylallyladenosine(37) (i6A37) by TRIT1 as prerequisite (PubMed:34774131, PubMed:35017528). May also mediate N(3)-methylcytidine modification of mRNAs (PubMed:28655767). The existence of N(3)-methylcytidine modification on mRNAs is however unclear, and additional evidence is required to confirm the role of the N(3)-methylcytidine-specific mRNA methyltransferase activity of METTL8 in vivo (PubMed:33313824, PubMed:34774131).
Cellular Location	Mitochondrion. Note=Mitochondrial protein: the cytoplasmic or nuclear localization observed by some groups is either the result of an incorrect localization caused by N-terminal tagging that interferes with mitochondrial targeting, or splice isoforms that lack the N-terminal mitochondrial transit sequence

Background

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