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NARS2 Rabbit pAb

Catalog # AP98767

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q96I59
Other Accession	Q96I59
Reactivity	Mouse
Predicted	Rat, Pig, Human, Rabbit, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	54090
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human NARS2
Epitope Specificity	101-200/477
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the class-II aminoacyl-tRNA synthetase family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	SLM5 (mitochondrial asparaginyl-tRNA synthetase, Asparagine-tRNA ligase) is a mitochondrial protein encoded by the human gene NARS2. AsnRS belongs to the class-II aminoacyl-tRNA synthetase family. Aminoacyl tRNA synthetases (aaRS) are enzymes that catalyze the esterification of a specific amino acid or its precursor to its compatible cognate tRNA to form an aminoacyl-tRNA. The synthetase first binds ATP and the corresponding amino acid or its precursor to form an aminoacyl-adenylate and release inorganic pyrophosphate (PPi). The adenylate-aaRS complex then binds the appropriate tRNA molecule, and the amino acid is transferred from the aa-AMP to either the 2'- or 3'-OH of the last tRNA base (A76) at the 3'-end. Some synthetases also mediate a proofreading reaction to ensure high fidelity of tRNA charging; if the tRNA is found to be improperly charged, the aminoacyl-tRNA bond is hydrolyzed. SLM5 acts to attach asparagine residues to its cognate tRNA.

Additional Information

Gene ID	79731
Other Names	DFNB94; SLM5; asnRS; SYNM_HUMAN; NARS2; Asparagine--tRNA ligase, mitochondrial; 6.1.1.22; asparaginyl-tRNA synthetase 2, mitochondrial; deafness, autosomal recessive 94; asparaginyl-tRNA synthetase 2, mitochondrial (putative); asparagine tRNA ligase 2, mitochondrial (putative)
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	NARS2 (HGNC:26274)
Function	Mitochondrial aminoacyl-tRNA synthetase that catalyzes the specific attachment of the asparagine amino acid (aa) to the homologous transfer RNA (tRNA), further participating in protein synthesis (PubMed:25385316). The reaction occurs in a two steps: asparagine is first activated by ATP to form Asn-AMP and then transferred to the acceptor end of tRNA(Asn) (Probable).
Cellular Location	Mitochondrion matrix. Mitochondrion

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