

NARS2 Rabbit pAb

Catalog # AP98767

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q96I59
Other Accession	Q96I59
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'.