

AlaRS (AARS) Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7558a**Specification**

AlaRS (AARS) Antibody (N-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	P49588
Other Accession	Q23122 , P50475 , Q8BG07 , Q9VLM8 , O01541
Reactivity	Human
Predicted	C.Elegans, Drosophila, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	106810
Antigen Region	61-91

AlaRS (AARS) Antibody (N-term) - Additional Information**Gene ID 16****Other Names**

Alanine--tRNA ligase, cytoplasmic {ECO:0000255|HAMAP-Rule:MF_03133}, 6117
{ECO:0000255|HAMAP-Rule:MF_03133}, Alanyl-tRNA synthetase
{ECO:0000255|HAMAP-Rule:MF_03133}, AlaRS {ECO:0000255|HAMAP-Rule:MF_03133}, Renal carcinoma antigen NY-REN-42, AARS {ECO:0000255|HAMAP-Rule:MF_03133}

Target/Specificity

This AlaRS (AARS) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 61-91 amino acids from the N-terminal region of human AlaRS (AARS).

Dilution

WB~~1:1000
IHC-P~~1:10~50

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

AlaRS (AARS) Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

AlaRS (AARS) Antibody (N-term) - Protein Information

Name AARS1

Synonyms AARS {ECO:0000255|HAMAP-Rule:MF_03133}

Function Catalyzes the attachment of alanine to tRNA(Ala) in a two- step reaction: alanine is first activated by ATP to form Ala-AMP and then transferred to the acceptor end of tRNA(Ala) (PubMed:[27622773](#), PubMed:[27911835](#), PubMed:[28493438](#), PubMed:[33909043](#)). Also edits incorrectly charged tRNA(Ala) via its editing domain (PubMed:[27622773](#), PubMed:[27911835](#), PubMed:[28493438](#)).

Cellular Location

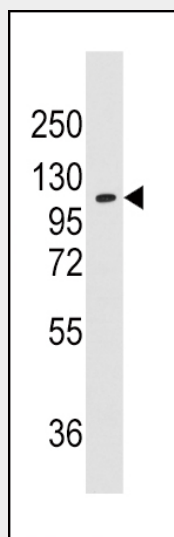
Cytoplasm {ECO:0000255|HAMAP-Rule:MF_03133, ECO:0000269|PubMed:27911835}

AlaRS (AARS) Antibody (N-term) - Protocols

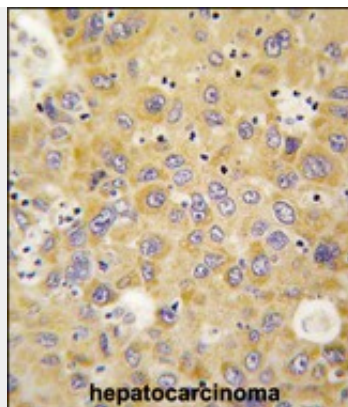
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

AlaRS (AARS) Antibody (N-term) - Images



Western blot analysis of anti-AARS Pab (Cat.#AP7558a) in K562 cell line lysates (35ug/lane).AARS (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with AARS antibody (N-term) (Cat.#AP7558a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

AlaRS (AARS) Antibody (N-term) - Background

The human alanyl-tRNA synthetase (AARS) belongs to a family of tRNA synthetases, of the class II enzymes. Class II tRNA synthetases evolved early in evolution and are highly conserved. This is reflected by the fact that 498 of the 968-residue polypeptide human AARS shares 41% identity with the E. coli protein. tRNA synthetases are the enzymes that interpret the RNA code and attach specific amino acids to the tRNAs that contain the cognate trinucleotide anticodons. They consist of a catalytic domain which interacts with the amino acid acceptor-T psi C helix of the tRNA, and a second domain which interacts with the rest of the tRNA structure.

AlaRS (AARS) Antibody (N-term) - References

Shiba, K., Biochemistry 34 (33), 10340-10349 (1995)
Ripmaster, T. L., Proc. Natl. Acad. Sci. U.S.A. 92 (11), 4932-4936 (1995)
Sang Lee, J., Cell 127 (3), 635-648 (2006)