DATASHEET

AlaRS Rabbit Polyclonal Antibody

CAT. NO. APA13172

KEY FEATURES

Target	AlaRS	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat	Clonality	Polyclonal
Applications	WB, IHC, IF/ICC	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.	Storage	at-20°C

BACKGROUND

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) 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) . Also edits incorrectly charged tRNA(Ala) via its editing domain . In presence of high levels of lactate, also acts as a protein lactyltransferase that mediates lactylation of lysine residues in target proteins, such as TEAD1, TP53/p53 and YAP1 . Protein lactylation takes place in a two-step reaction: lactate is first activated by ATP to form lactate-AMP and then transferred to lysine residues of target proteins .

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:2000
IHC	1:50 - 1:200
IF/ICC	1:50 - 1:200

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Rabbit polyclonal antibody to AlaRS
Specificity	Recognizes endogenous levels of AlaRS protein.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic peptide of human AlaRS
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 106; Observed: 107 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	Alanine--tRNA ligase, cytoplasmic; Alanyl-tRNA synthetase; AlaRS; Renal carcinoma antigen NY-REN-42
Gene Symbol	AARS
Entrez Gene	16(Human); 234734(Mouse); 292023(Rat)
SwissProt	P49588(Human); Q8BGQ7(Mouse); P50475(Rat)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

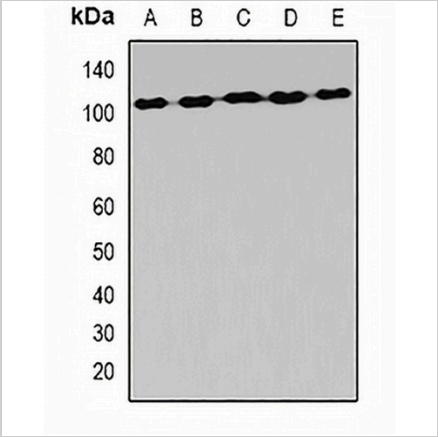
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

DATASHEET

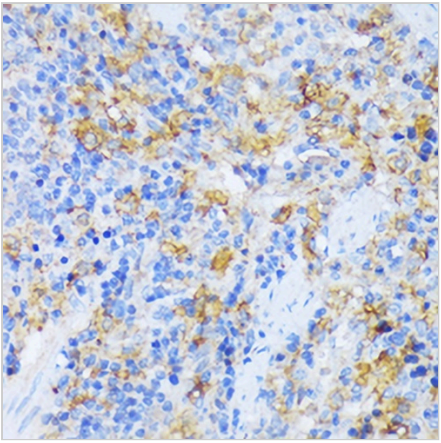
AlaRS Rabbit Polyclonal Antibody

CAT. NO. APA13172

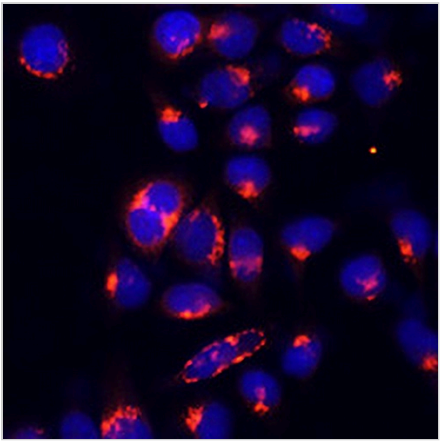
DATA



Western blot analysis of AlaRS expression in Hela (A), MCF7 (B), mouse liver (C), mouse brain (D), rat spinal cord (E) whole cell lysates. (Predicted band size: 106; 109 kD; Observed band size: 107 kD)



Immunohistochemical analysis of AlaRS staining in rat spleen formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of AlaRS staining in HEK293T cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AREX® Fluor 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.