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LARS Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7413b

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9P2J5
Reactivity	Human
Predicted	Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB14824
Calculated MW	134466
Antigen Region	1118-1145

Additional Information

Gene ID	51520
Other Names	Leucine--tRNA ligase, cytoplasmic, Leucyl-tRNA synthetase, LeuRS, LARS, KIAA1352
Target/Specificity	This LARS antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1118-1145 amino acids from the C-terminal region of human LARS.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
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	LARS Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	LARS1 (HGNC:6512)
Synonyms	KIAA1352, LARS
Function	Aminoacyl-tRNA synthetase that catalyzes the specific attachment of leucine

to its cognate tRNA (tRNA(Leu)) (PubMed:25051973, PubMed:32232361). It performs tRNA aminoacylation in a two-step reaction: Leu is initially activated by ATP to form a leucyl-adenylate (Leu-AMP) intermediate; then the leucyl moiety is transferred to the acceptor 3' end of the tRNA to yield leucyl-tRNA (PubMed:25051973). To improve the fidelity of catalytic reactions, it is also able to hydrolyze misactivated aminoacyl-adenylate intermediates (pre-transfer editing) and mischarged aminoacyl-tRNAs (post-transfer editing) (PubMed:25051973).

Cellular Location Cytoplasm.

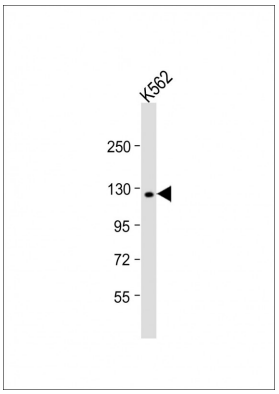
Background

LARS, a cytosolic leucine-tRNA synthetase, a member of the class I aminoacyl-tRNA synthetase family. This enzyme catalyzes the ATP-dependent ligation of L-leucine to tRNA(Leu). It is found in the cytoplasm as part of a multisynthetase complex and interacts with the arginine tRNA synthetase through its C-terminal domain.

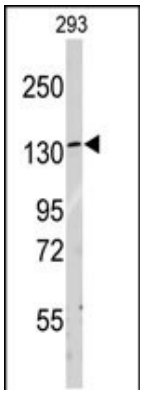
References

Lue,S.W.; Biochemistry 46 (15), 4466-4472 (2007)
Ling,C., J. Biol. Chem. 280 (41), 34755-34763 (2005)
Giles,R.E., Somatic Cell Genet. 6 (5), 667-687 (1980)

Images

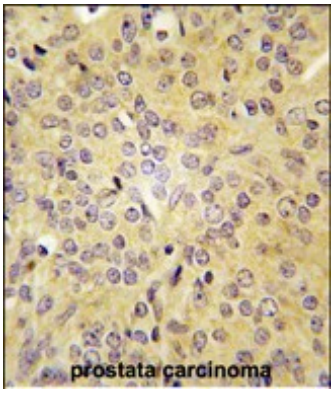


Anti-LARS Antibody (C-term) at 1:1000 dilution + K562 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 134 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot analysis of anti-LARS Antibody (C-term) (Cat.#AP7413b) in 293 cell line lysates (35ug/lane). LARS(arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human prostata carcinoma tissue reacted with LARS antibody (C-term) (Cat.#AP7413b), 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.

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