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HARS Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7567a

Product Information

Application	WB, IHC-P, E
Primary Accession	P12081
Other Accession	Q61035, Q2KI84
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB14816
Calculated MW	57411
Antigen Region	49-78

Additional Information

Gene ID	3035
Other Names	Histidine--tRNA ligase, cytoplasmic, Histidyl-tRNA synthetase, HisRS, HARS, HRS
Target/Specificity	This HARS antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 49-78 amino acids from the N-terminal region of human HARS.
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	HARS Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HARS1 (HGNC:4816)
Synonyms	HARS, HRS

Function	Catalyzes the ATP-dependent ligation of histidine to the 3'- end of its cognate tRNA, via the formation of an aminoacyl-adenylate intermediate (His-AMP) (PubMed:29235198). Plays a role in axon guidance (PubMed:26072516).
Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:F1Q5D5}.
Tissue Location	Brain, heart, liver and kidney.

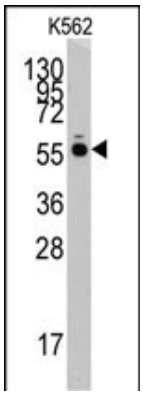
Background

Aminoacyl-tRNA synthetases are a class of enzymes that charge tRNAs with their cognate amino acids. HARS is a cytoplasmic enzyme which belongs to the class II family of aminoacyl-tRNA synthetases. This enzyme is responsible for the synthesis of histidyl-transfer RNA, which is essential for the incorporation of histidine into proteins. The protein is a frequent target of autoantibodies in the human autoimmune disease polymyositis/dermatomyositis.

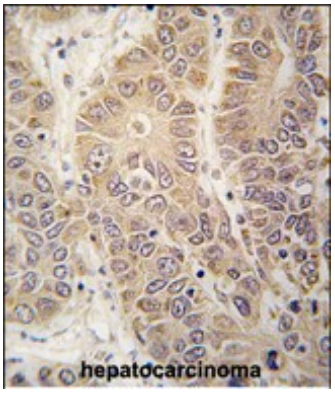
References

Levine,S.M., Arthritis Rheum. 56 (8), 2729-2739 (2007)
Lu,Q., Proc. Natl. Acad. Sci. U.S.A. 100 (13), 7626-7631 (2003)

Images



Western blot analysis of anti-HARS Pab (Cat.#AP7567a) in K562 cell line lysates (35ug/lane).HARS (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with HARS antibody (N-term) (Cat.#AP7567a), 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.