10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-GARS Rabbit Monoclonal Antibody

Catalog # ABO13411

Product Information

Application	WB, IHC
Primary Accession	P41250
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-GARS Rabbit Monoclonal Antibody . Tested in WB, IHC applications. This antibody reacts with Human, Mouse, Rat.

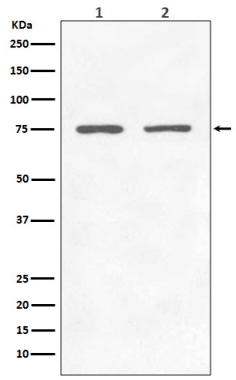
Additional Information

Gene ID	2617
Other Names	Glycine--tRNA ligase, 6.1.1.14, Diadenosine tetraphosphate synthetase, Ap4A synthetase, 2.7.7.-, Glycyl-tRNA synthetase, GlyRS, Glycyl-tRNA synthetase 1 {ECO:0000312|HGNC:HGNC:4162}, GARS1 (HGNC:4162), GARS
Calculated MW	83166
Application Details	WB 1:1000-1:2000 IHC 1:50-1:200
Subcellular Localization	Cytoplasm. Mitochondrion. Cell projection, axon. Associated with granules in cultured neuron cells..
Tissue Specificity	Widely expressed, including brain and spinal cord..
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: FEA-7
Immunogen	A synthesized peptide derived from human GARS
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

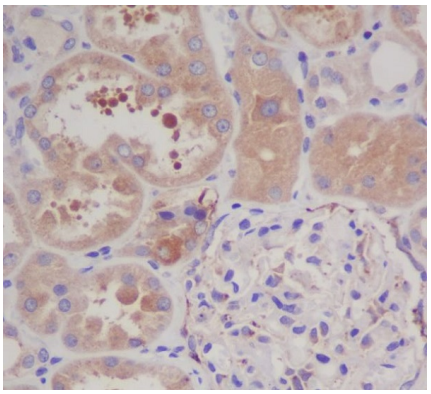
Protein Information

Name	GARS1 (HGNC:4162)
Synonyms	GARS
Function	Catalyzes the ATP-dependent ligation of glycine to the 3'-end of its cognate tRNA, via the formation of an aminoacyl-adenylate intermediate (Gly-AMP) (PubMed:17544401, PubMed:24898252, PubMed:28675565). Also produces diadenosine tetraphosphate (Ap4A), a universal pleiotropic signaling molecule needed for cell regulation pathways, by direct condensation of 2 ATPs. Thereby, may play a special role in Ap4A homeostasis (PubMed:19710017).
Cellular Location	Cytoplasm. Cell projection, axon. Secreted {ECO:0000250|UniProtKB:Q9CZD3}. Secreted, extracellular exosome {ECO:0000250|UniProtKB:Q9CZD3}. Note=In transfected COS7 cells, not detected in mitochondria, nor in Golgi apparatus (PubMed:17035524) Secreted by motor neuron, possibly through the exosome pathway (By similarity). {ECO:0000250|UniProtKB:Q9CZD3, ECO:0000269|PubMed:17035524} [Isoform 2]: Cytoplasm. Cell projection, axon
Tissue Location	Widely expressed, including in brain and spinal cord. [Isoform 1]: Expressed in brain, spinal cord, muscle, heart, spleen and liver.

Images



Western blot analysis of GARS expression in (1) Jurkat cell lysate; (2) 293T cell lysate.



Immunohistochemical analysis of paraffin-embedded human kidney, using GARS Antibody.

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