

**GARS Antibody**  
Rabbit mAb  
Catalog # AP90681

## Specification

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### GARS Antibody - Product Information

Application	WB, IHC
Primary Accession	<a href="#">P41250</a>
Reactivity	Rat
Clonality	Monoclonal
<b>Other Names</b>	
HMN5; CMT2D; DSMAV; GlyRS; SMAD1;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	83166 Da

### GARS Antibody - Additional Information

Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human GARS
Description	This gene encodes glycyl-tRNA synthetase, one of the aminoacyl-tRNA synthetases that charge tRNAs with their cognate amino acids. The encoded enzyme is an (alpha)2 dimer which belongs to the class II family of tRNA synthetases. It has been shown to be a target of autoantibodies in the human autoimmune diseases, polymyositis or dermatomyositis.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

### GARS Antibody - 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](http://www.uniprot.org/citations/17544401), PubMed:[24898252](http://www.uniprot.org/citations/24898252), PubMed:[28675565](http://www.uniprot.org/citations/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:<a href="http://www.uniprot.org/citations/19710017" target="\_blank">19710017</a>).

#### 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

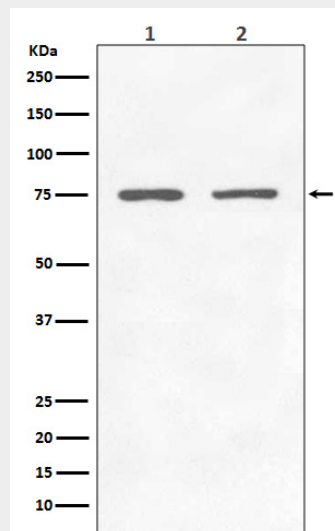
Widely expressed, including in brain and spinal cord. [Isoform 1]: Expressed in brain, spinal cord, muscle, heart, spleen and liver.

### GARS Antibody - 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](#)

### GARS Antibody - Images



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