

**GARS Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AW5648****Specification**

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**GARS Antibody (C-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">P41250</a>
Other Accession	<a href="#">Q5RBL1</a>
Reactivity	Human, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	H=83;M=82;R=72 KDa
Isotype	Rabbit IgG
Antigen Source	HUMAN

**GARS Antibody (C-term) - Additional Information****Gene ID** 2617**Antigen Region**  
706-739**Other Names**

Glycine--tRNA ligase, Diadenosine tetraphosphate synthetase, AP-4-A synthetase, Glycyl-tRNA synthetase, GlyRS, GARS

**Dilution**

WB~~1:2000

**Target/Specificity**

This GARS antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 706-739 amino acids from the C-terminal region of human GARS.

**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**

GARS Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**GARS Antibody (C-term) - 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:<a href="http://www.uniprot.org/citations/17544401" target="\_blank">17544401</a>, PubMed:<a href="http://www.uniprot.org/citations/28675565" target="\_blank">28675565</a>, PubMed:<a href="http://www.uniprot.org/citations/24898252" target="\_blank">24898252</a>). 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

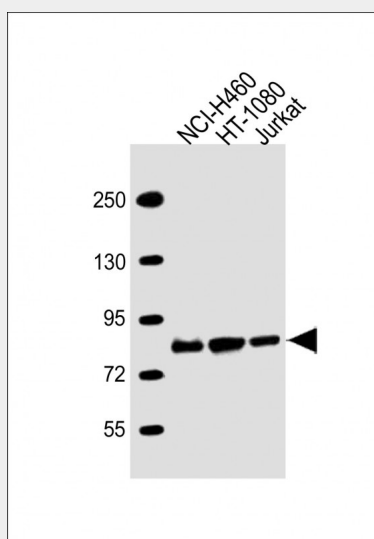
Widely expressed, including in brain and spinal cord. [Isoform 1]: Expressed in brain, spinal cord, muscle, heart, spleen and liver.

### GARS Antibody (C-term) - Protocols

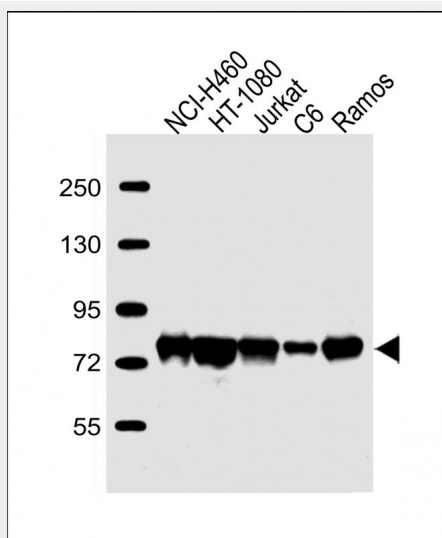
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### GARS Antibody (C-term) - Images



All lanes : Anti-GARS Antibody (C-term) at 1:4000 dilution Lane 1: NCI-H460 whole cell lysate Lane 2: HT-1080 whole cell lysate Lane 3: Jurkat 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 : 83 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes : Anti-GARS Antibody (C-term) at 1:2000 dilution Lane 1: NCI-H460 whole cell lysate Lane 2: HT-1080 whole cell lysate Lane 3: Jurkat whole cell lysate Lane 4: C6 whole cell lysate Lane 5: Ramos 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 : 83 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

#### **GARS Antibody (C-term) - Background**

GARS is a glycyl-tRNA synthetase, one of the aminoacyl-tRNA synthetases that charge tRNAs with their cognate amino acids. This protein is an (α)<sub>2</sub> dimer which belongs to the class II family of tRNA synthetases. The protein has been shown to be a target of autoantibodies in the human autoimmune diseases, polymyositis or dermatomyositis.

#### **GARS Antibody (C-term) - References**

Shiba K., Schimmel P.J. Biol. Chem. 269:30049-30055(1994) Antonellis A., Ellsworth R.E. Am. J. Hum. Genet. 72:1293-1299(2003)