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KD-Validated Anti-GARS Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1521

Specification

KD-Validated Anti-GARS Rabbit Monoclonal Antibody - Product Information

Application	**WB**
Primary Accession	P41250
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 83 kDa, observed, 75 kDa KDa**
Gene Name	**GARS1**
Aliases	**GARS1; Glycyl-TRNA Synthetase 1; GlyRS; DSMAV; SMAD1; GARS; Diadenosine Tetraphosphate Synthetase; Charcot-Marie-Tooth Neuropathy 2D; Glycyl-TRNA Synthetase; Glycine--TRNA Ligase; Ap4A Synthetase; EC 6.1.1.14; CMT2D; Charcot-Marie-Tooth Neuropathy, Neuronal Type, D; Glycine TRNA Ligase; AP-4-A Synthetase; EC 2.7.7.-; HMN5A; SMAJI; GLYRS; HMN5**
Immunogen	**A synthesized peptide derived from human GARS**

KD-Validated Anti-GARS Rabbit Monoclonal Antibody - 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

KD-Validated Anti-GARS Rabbit Monoclonal 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, 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

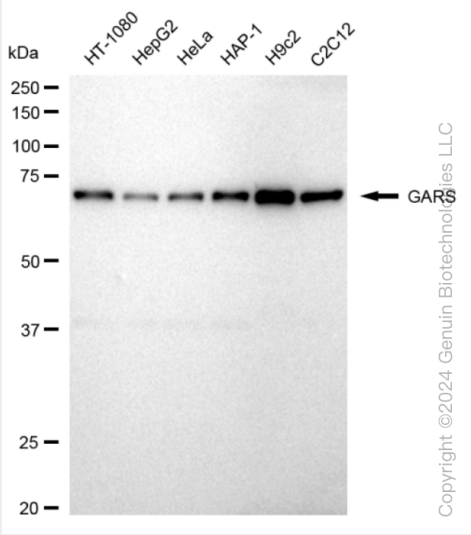
Tissue Location
Widely expressed, including in brain and spinal cord. [Isoform 1]: Expressed in brain, spinal cord, muscle, heart, spleen and liver.

KD-Validated Anti-GARS Rabbit Monoclonal 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 Cytomety
- Cell Culture

KD-Validated Anti-GARS Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-GARS antibody (Cat#AGI1521). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-GARS antibody (Cat#AGI1521, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

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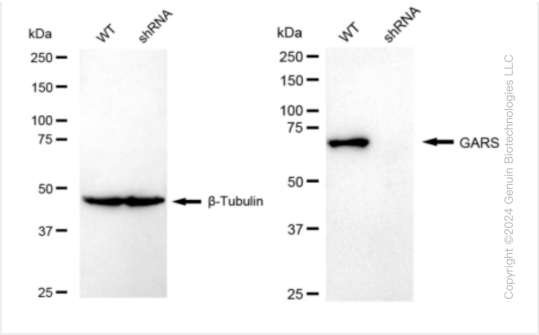

Western blotting analysis using anti-GARS antibody (Cat#AGI1521). GARS expression in wild type (WT) and GARS shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-GARS antibody (Cat#AGI1521, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.