

KD-Validated Anti-GARS Rabbit Monoclonal Antibody

Rabbit monoclonal antibody

Catalog # AGI1521

Product Information

Application	WB
Primary Accession	P41250
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	23GB5515
Calculated MW	83166
Gene Name	GARS1
Aliases	GARS1; Glycyl-TRNA Synthetase 1; GlyRS; DSMAV; SMAD1; GARS; Diadenosine Tetrphosphate 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

Additional Information

Gene ID	2617
Other Names	Glycine--tRNA ligase, 6.1.1.14, Diadenosine tetrphosphate synthetase, Ap4A synthetase, 2.7.7.-, Glycyl-tRNA synthetase, GlyRS, Glycyl-tRNA synthetase 1 {ECO:0000312 HGNC:HGNC:4162}, GARS1 (HGNC:4162), GARS

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 tetrphosphate (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.

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