Human GARS antibody

Catalog Number: ATGA0318

PRODUCT INFORMATION

Catalog number
ATGA0318

Clone No.
AT4E10

Product type
Monoclonal Antibody

UnitProt No.
P41250

NCBI Accession No.
NP_002038

Alternative Names
Glycyl-tRNA synthetase, CMT2D, DSMAV, GlyRS, HMN5, SMAD1

PRODUCT SPECIFICATION

Antibody Host
Mouse

Reacts With
Human

Concentration
1mg/ml (determined by BCA assay)

Formulation
Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

Immunogen
Recombinant human GARS (43-289aa) purified from E. coli

Isotype
IgG1 kappa

Purification Note
By protein-A affinity chromatography

Application
ELISA,WB,ICC/IF

Usage
The antibody has been tested by ELISA, Western blot and ICC/IF analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

Storage

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Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

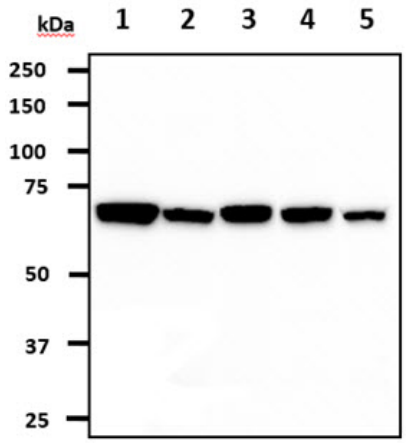
GARS, also known as glycyl-tRNA synthetase, is one of the aminoacyl-tRNA synthetase that charge tRNAs with their cognate amino acids. Defects in the gene encoding GlyRS is the cause of Charcot-Marie-Tooth disease type 2D (CMT2D), which is an autosomal dominant inherited disease characterized by severe weakness, atrophy and absence of deep tendon reflexes in the upper extremities. Defects in the GlyRS gene is also the cause of distal hereditary muscular neuropathy type V (HMN5), a disease similar to CMT2D, though the distal sensory involvement is less severe in HMN5 patients.

General References

Xie. W. (2007) Proc Natl Acad Sci U S A. 104: 9976-9981.
Antonellis. A. (2003) AM J Hum Genet 72: 1293-1299.

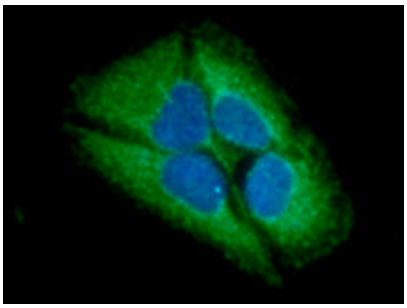
DATA

Western blot analysis (WB)



The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human GARS (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.
Lane 1.: HeLa cell lysate
Lane 2.: 293T cell lysate
Lane 3.: Jurkat cell lysate
Lane 4.: U87-MG cell lysate
Lane 5.: A431 cell lysate

Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of GARS in HeLa cells. The cell was stained with ATGA0318 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).