

# GARS Monoclonal antibody

Catalog Number: 67893-1-Ig

Featured Product

## Basic Information

**Catalog Number:**

67893-1-Ig

**Size:**

1000 µg/ml

**Source:**

Mouse

**Isotype:**

IgG2a

**Immunogen Catalog Number:**

AG8432

**GenBank Accession Number:**

BC007755

**GeneID (NCBI):**

2617

**UNIPROT ID:**

P41250

**Full Name:**

glycyl-tRNA synthetase

**Calculated MW:**

739 aa, 83 kDa

**Observed MW:**

75-80 kDa

**Purification Method:**

Protein A purification

**CloneNo.:**

2H9D3

**Recommended Dilutions:**

WB 1:5000-1:50000

IHC 1:1000-1:4000

IF/ICC 1:200-1:800

## Applications

**Tested Applications:**

IF/ICC, IHC, WB, ELISA

**Species Specificity:**

Human, mouse, rat

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

**Positive Controls:**

**WB:** LNCaP cells, HepG2 cells, HeLa cells, HEK-293 cells, HepG2 cells, Jurkat cells, K-562 cells, HSC-T6 cells, NIH/3T3 cells

**IHC:** human skin cancer tissue,

**IF/ICC:** A431 cells,

## Background Information

Glycyl-tRNA synthetase 1 (GARS, GeneID:2617) is one of the aminoacyl-tRNA synthetases. It is essential for protein synthesis in all cells and tissues (PMID: 17035524) and charges tRNA molecules with glycine by catalyzing the ATP-dependent ligation of glycine to the 3'-end of its cognate tRNA via the formation of an aminoacyl-adenylate intermediate (Gly-AMP) (PMID: 17544401, PMID: 28675565, PMID: 24898252). GARS is located in cytoplasm, but also can be secreted from cells and as an extracellular protein which may influence cell signaling. Mutation of GARS causes peripheral neuropathies such as CMT2D, SMA (PMID: 26503042, PMID: 32181591), or associates with cancer. Two transcript variants encoding different isoforms have been found for this gene. The molecular weight of isoform2 is about 78 kDa.

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

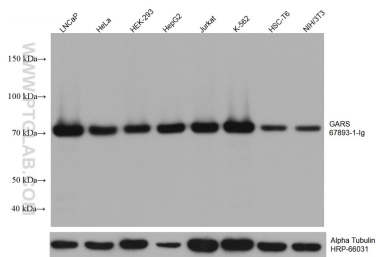
T: 4006900926

E: Proteintech-CN@ptglab.com

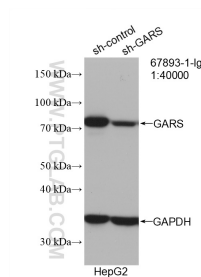
W: ptgcn.com

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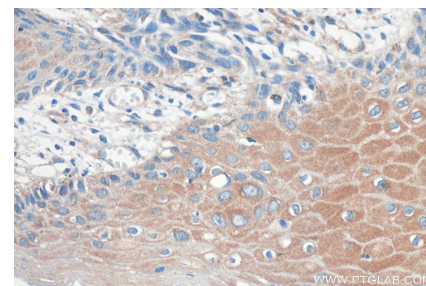
## Selected Validation Data



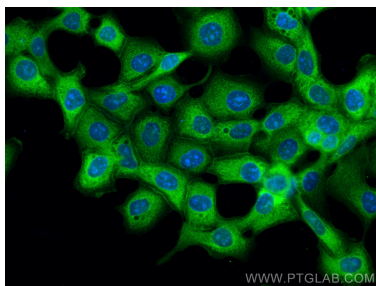
Various lysates were subjected to SDS PAGE followed by western blot with 67893-1-Ig (GARS antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated Alpha Tubulin Monoclonal antibody (HRP-66031) as loading control.



WB result of GARS antibody (67893-1-Ig; 1:40000; incubated at room temperature for 1.5 hours) with sh-Control and sh-GARS transfected HepG2 cells.



Immunohistochemical analysis of paraffin-embedded human skin cancer tissue slide using 67893-1-Ig (GARS antibody) at dilution of 1:2000 (under 40x lens).



Immunofluorescent analysis of (-20°C Methanol) fixed A431 cells using GARS antibody (67893-1-Ig, Clone: 2H9D3) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).