

For Research Use Only

# MARS Recombinant antibody

Catalog Number: 83690-4-RR



## Basic Information

<b>Catalog Number:</b> 83690-4-RR	<b>GenBank Accession Number:</b> BC002384	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 1000 ug/ml	<b>GeneID (NCBI):</b> 4141	<b>CloneNo.:</b> 240648G4
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P56192	<b>Recommended Dilutions:</b> WB 1:2000-1:16000 IHC 1:50-1:500 IF/ICC 1:125-1:500
<b>Isotype:</b> IgG	<b>Full Name:</b> methionyl-tRNA synthetase	
<b>Immunogen Catalog Number:</b> AG6619	<b>Calculated MW:</b> 101 kDa <b>Observed MW:</b> 101 kDa	

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, 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 :** HeLa cells, HepG2 cells, A549 cells, PC-12 cells, mouse testis tissue, rat liver tissue

**IHC :** human stomach cancer tissue,

**IF/ICC :** HepG2 cells,

## Background Information

The methionyl-tRNA synthetase (MARS) gene encodes cytoplasmic methionyl-tRNA synthetase (MetRS) responsible for catalyzing the ligation of methionine to tRNA. MetRS belongs to a family of aminoacyl-tRNA synthetases that play critical roles in protein biosynthesis by charging tRNAs with their cognate amino acids. MetRS overexpression was shown to be evident in human colon cancer patients. MetRS may thus be involved in oncogenic transformation. MetRS has been proven as a potential prognostic marker candidate for the clinical prognostic prediction of non-small-cell lung cancer (NSCLC) in patients. MetRS can also be used to detect intracellular oxidative stress and control protein synthesis under oxidative stress (PMID: 30271085, PMID: 34679529, PMID: 32404475). The calculated molecular weight of MetRS is 101 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:

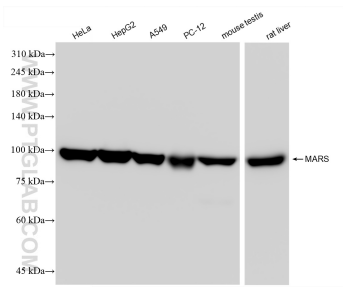
T: 4006900926

E: Proteintech-CN@ptglab.com

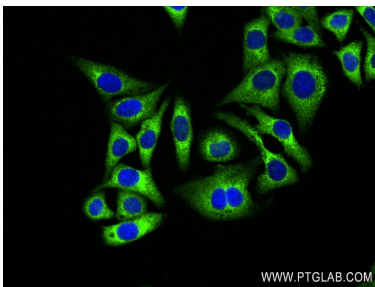
W: ptgcn.com

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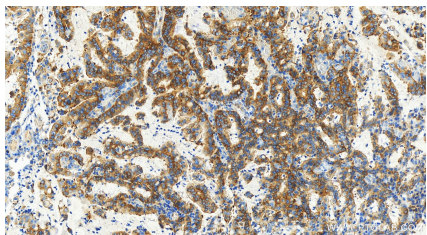
Selected Validation Data



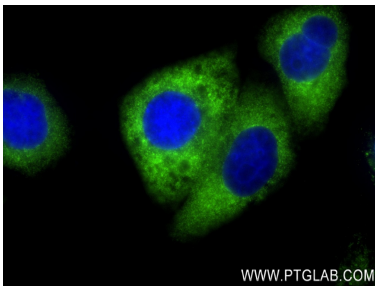
Various lysates were subjected to SDS PAGE followed by western blot with 83690-4-RR (MARS antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



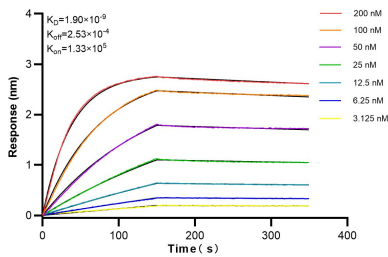
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using MARS antibody (83690-4-RR, Clone: 240648G4 ) at dilution of 1:250 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2).



Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue slide using 83690-4-RR (MARS antibody) at dilution of 1:200 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer(pH9).



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using MARS antibody (83690-4-RR, Clone: 240648G4 ) at dilution of 1:250 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2).



Biolayer interferometry (BLI) kinetic assays of 83690-4-RR against Human MARS were performed. The affinity constant is 1.90 nM.