

For Research Use Only

MARS Recombinant antibody, PBS Only (Capture)

Catalog Number: 83690-4-PBS



Basic Information

Catalog Number: 83690-4-PBS	GenBank Accession Number: BC002384	Purification Method: Protein A purification
Size: 100ug, Concentration: 1 mg/ml by Nanodrop;	GeneID (NCBI): 4141	CloneNo.: 240648G4
Source: Rabbit	UNIPROT ID: P56192	
Isotype: IgG	Full Name: methionyl-tRNA synthetase	
Immunogen Catalog Number: AG6619	Calculated MW: 101 kDa	
	Observed MW: 101 kDa	

Applications

Tested Applications:
WB, IHC, IF/ICC, Cytometric bead array, Sandwich ELISA, Indirect ELISA, Sample test

Species Specificity:
human, mouse, rat

Product Information

83690-4-PBS targets MARS as part of a matched antibody pair:

MP00679-1: 83690-4-PBS capture and 83690-3-PBS detection (validated in Cytometric bead array, Sandwich ELISA)

MP00679-2: 83690-4-PBS capture and 83690-2-PBS detection (validated in Cytometric bead array)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

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

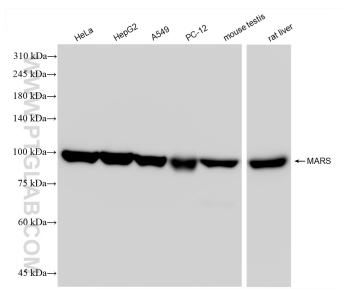
Storage:
Store at -80°C.

Storage Buffer:
PBS Only

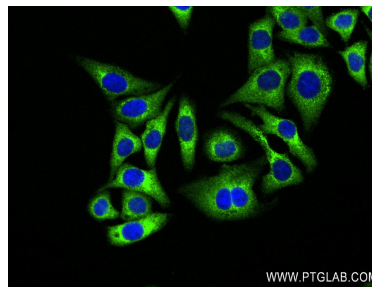
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

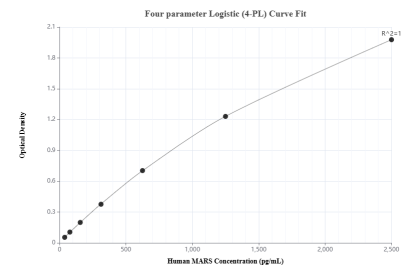
Selected Validation Data



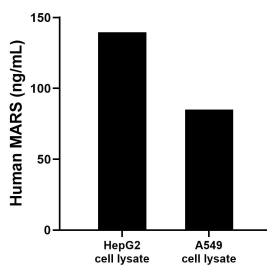
Various lysates were subjected to SDS PAGE followed by western blot with 83690-4-RR (MARS antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 83690-4-PBS in a different storage buffer formulation.



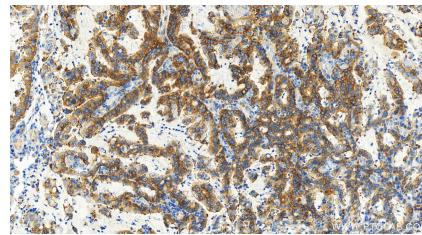
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using MARS antibody (83690-4-RR, Clone: 240648G4) at dilution of 1:250 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2). This data was developed using the same antibody clone with 83690-4-PBS in a different storage buffer formulation.



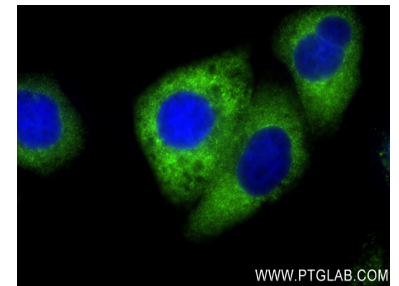
Sandwich ELISA standard curve of MP00679-1, Human MARS Recombinant Matched Antibody Pair - PBS only. 83690-4-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Ag6619. 83690-3-PBS was HRP conjugated as the detection antibody. Range: 39.1-2500 pg/mL



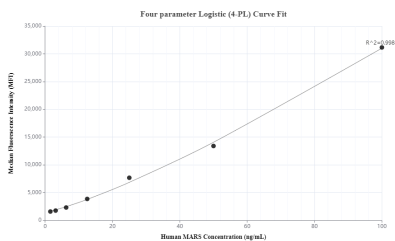
HepG2 and A549 cell lysates were measured. The human MARS concentration of detected samples was determined to be 139.60 ng/mL (based on a 3.00 mg/mL extract load) in HepG2 cell lysate and 85.10 ng/mL (based on a 3.00 mg/mL extract load) in A549 cell lysate.



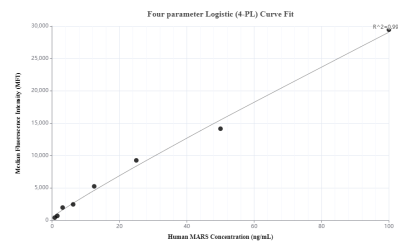
Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue slide using 83690-4-RR (MARS antibody) at dilution of 1:200 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer(pH9). This data was developed using the same antibody clone with 83690-4-PBS in a different storage buffer formulation.



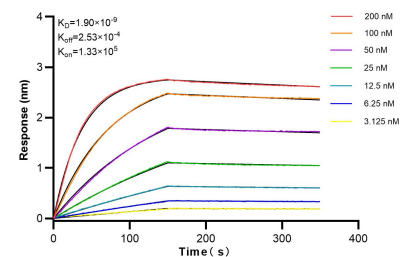
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using MARS antibody (83690-4-RR, Clone: 240648G4) at dilution of 1:250 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2). This data was developed using the same antibody clone with 83690-4-PBS in a different storage buffer formulation.



Cytometric bead array standard curve of MP00679-1, MARS Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 83690-4-PBS. Detection antibody: 83690-3-PBS. Standard: Ag6619. Range: 1.56-100 ng/mL



Cytometric bead array standard curve of MP00679-2, MARS Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 83690-4-PBS. Detection antibody: 83690-2-PBS. Standard: Ag6619. Range: 0.78-100 ng/mL



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