abcam

ab180497

Anti-MetRS/MARS antibody [EPR9872]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR9872
Purification technique	Affinity purification Protein A
Concentration	0.226 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/20 - 1/40
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Rat
Dilution info	1/10000 - 1/50000
Notes	-

Species	Human
Dilution info	1/10000 - 1/50000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50 - 1/250
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/20

Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Rat
Dilution info	1/4000
Notes	For unpurified use at 1/50

Species	Human
Dilution info	1/4000
Notes	For unpurified use at 1/50

Target data

See full target information MARS1

Function	Catalyzes the specific attachment of an amino acid to its cognate tRNA in a 2 step reaction: the amino acid (AA) is first activated by ATP to form AA-AMP and then transferred to the acceptor end of the tRNA (PubMed:11714285). Plays a role in the synthesis of ribosomal RNA in the nucleolus (PubMed:10791971).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

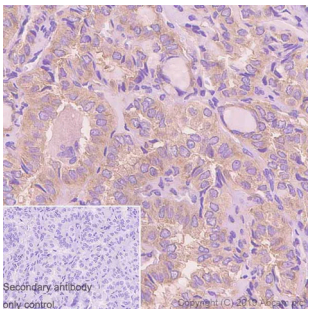
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

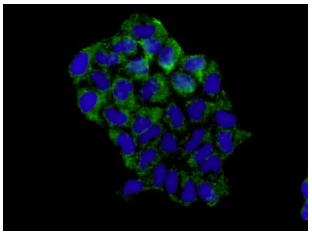
11 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MetRS/MARS antibody [EPR9872] (ab180497)

MetRS/MARS Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-MetRS/MARS antibody

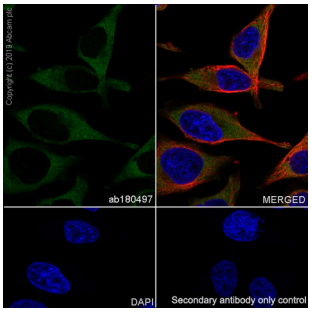
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human thyroid carcinoma tissue sections labeling MetRS/MARS with purified ab180497 at 1/4000 dilution (0.06 µg/ml). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunocytochemistry/ Immunofluorescence - Anti-MetRS/MARS antibody [EPR9872] (ab180497)

MetRS/MARS Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-MetRS/MARS antibody

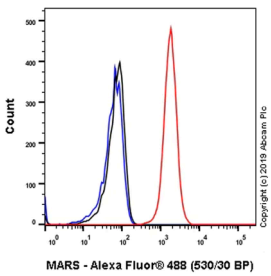
Immunofluorescent analysis of HeLa cells (acetone-fixed) labeling MARS with unpurified ab180497 at 1/250 dilution (green) followed by Goat anti rabbit IgG (Dylight 488) at 1/250 dilution and DAPI staining (blue).



Immunocytochemistry/ Immunofluorescence - Anti-MetRS/MARS antibody [EPR9872] (ab180497)

MetRS/MARS Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-MetRS/MARS antibody

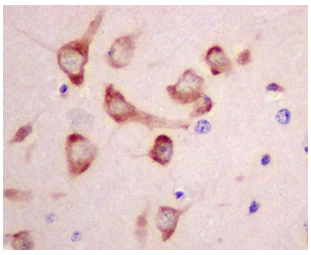
Immunocytochemistry/ Immunofluorescence analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling MetRS/MARS with purified ab180497 at 1/50 dilution (4.52 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry (Intracellular) - Anti-MetRS/MARS antibody [EPR9872] (ab180497)

MetRS/MARS Flow Cytometry (Intracellular) staining using rabbit Anti-MetRS/MARS antibody

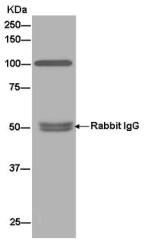
Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling MetRS/MARS with purified ab180497 at 1/20 dilution (10 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MetRS/MARS antibody [EPR9872] (ab180497)

MetRS/MARS Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-MetRS/MARS antibody

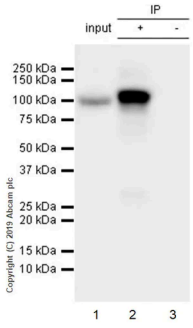
Immunohistochemical analysis of paraffin-embedded Human brain tissue labeling MARS with unpurified ab180497 at 1/50 dilution followed by ImmunoHistoprobe (Ready to use) HRP Polymer for Rabbit IgG secondary and counter stained with Hematoxylin.
Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-MetRS/MARS antibody [EPR9872] (ab180497)

Western blot analysis of immunoprecipitation pellet from HepG2 lysate immunoprecipitated using unpurified ab180497 at 1/40 dilution. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution.
All lanes:
Immunoprecipitation - Anti-MetRS/MARS antibody [EPR9872] (ab180497)

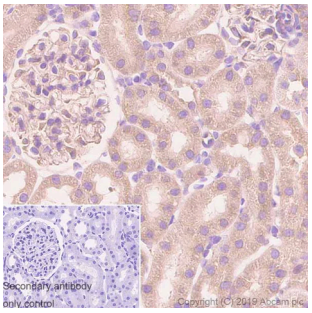
Predicted band size: 101 kDa



Immunoprecipitation - Anti-MetRS/MARS antibody [EPR9872] (ab180497)

ab180497 (purified) at 1/20 dilution (1ug) immunoprecipitating MetRS/MARS in HepG2 whole cell lysate.
Lane 1 (input): HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysate 10ug
Lane 2 (+): ab180497 & HepG2 whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab180497 in HepG2 whole cell lysate
For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/1000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.
All lanes:
Immunoprecipitation - Anti-MetRS/MARS antibody [EPR9872] (ab180497)

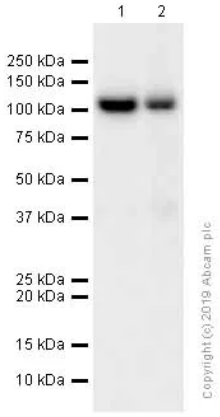
Predicted band size: 101 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MetRS/MARS antibody [EPR9872] (ab180497)

MetRS/MARS Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-MetRS/MARS antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat kidney tissue sections labeling MetRS/MARS with purified ab180497 at 1/4000 dilution (0.06 µg/ml). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Western blot - Anti-MetRS/MARS antibody [EPR9872] (ab180497)

All lanes:
Western blot - Anti-MetRS/MARS antibody [EPR9872] (ab180497) at 1/50000 dilution

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates at 20 µg

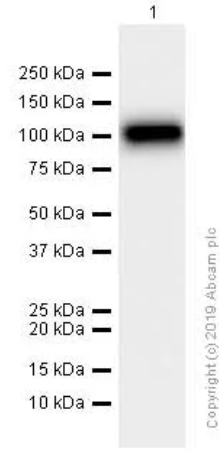
Lane 2:
HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysates at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 101 kDa

Observed band size: 101 kDa



Western blot - Anti-MetRS/MARS antibody [EPR9872] (ab180497)

All lanes:
Western blot - Anti-MetRS/MARS antibody [EPR9872] (ab180497) at 1/10000 dilution

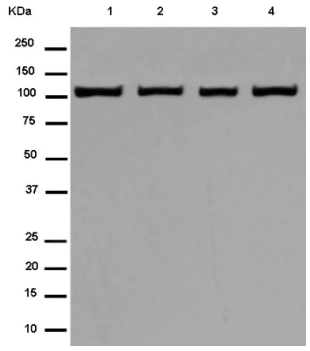
All lanes:
PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysates at 15 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 101 kDa

Observed band size: 101 kDa



Western blot - Anti-MetRS/MARS antibody [EPR9872] (ab180497)

All lanes:
Western blot - Anti-MetRS/MARS antibody [EPR9872] (ab180497) at 1/10000 dilution

Lane 1:
HepG2 lysate at 20 µg

Lane 2:
HeLa lysate at 20 µg

Lane 3:
SW480 lysate at 20 µg

Lane 4:
Caco2 lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 101 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.