10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

[KO]MetRS Rabbit mAb

Catalog # AP75692

Product Information

Application	WB, IHC-P, IHC-F, FC, IP
Primary Accession	P56192
Reactivity	Rat, Human
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	101116

Additional Information

Gene ID	4141
Other Names	MARS1
Dilution	WB~~1:1000-1:5000 IHC-P~~N/A IHC-F~~N/A FC~~1:20-1:50 IP~~1:20-1:50
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

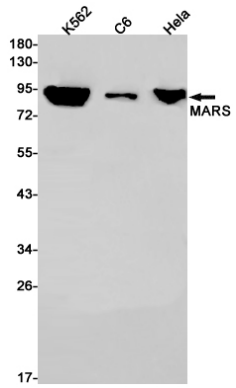
Protein Information

Name	MARS1 (HGNC:6898)
Synonyms	MARS
Function	Catalyzes the specific attachment of L-methionine 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, PubMed:33909043). Plays a role in the synthesis of ribosomal RNA in the nucleolus (PubMed:10791971). In addition, can prevent the misincorporation of homocysteine into tRNA and protein by catalyzing a tRNA-independent hydrolysis of the misactivated homocysteinyl-AMP intermediate. The homocysteinyl-AMP intermediate undergoes an intramolecular cyclization reaction in which the thiolate side chain of homocysteine displaces the AMP group, forming homocysteine-thiolactone and AMP (By similarity).
Cellular Location	Cytoplasm, cytosol. Nucleus, nucleolus. Note=Localizes to the nucleolus in proliferative cells but disappears in quiescent cells

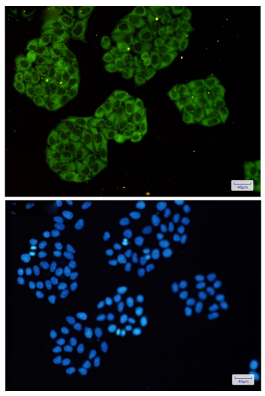
Background

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.

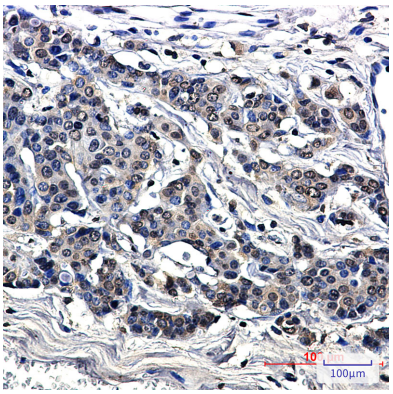
Images



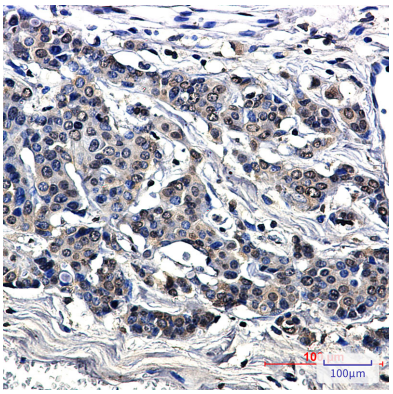
Western blot analysis of MARS in K562, C6, Hela lysates using MetRS antibody.

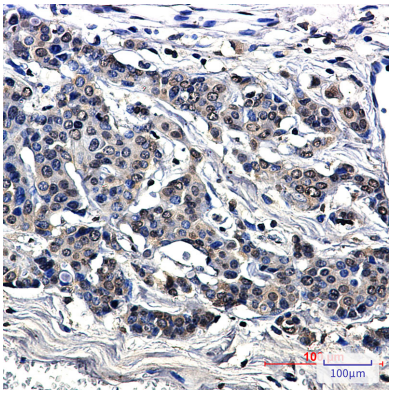


Immunocytochemistry analysis of MARS(green) in Hela using MARS antibody,and DAPI(blue)



Immunohistochemistry analysis of paraffin-embedded Human breast cancer using MetRS/MARS antibody.High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.





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