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MARS Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP57213

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	P56192
Reactivity	Rat, Pig, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	101116

Additional Information

Gene ID	4141
Other Names	Methionine--tRNA ligase, cytoplasmic, 6.1.1.10, Methionyl-tRNA synthetase, MetRS, MARS1 (HGNC:6898), MARS
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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

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