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

MOSC1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9754c

Product Information

Application	WB, IHC-P, E
Primary Accession	Q5VT66
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24478
Calculated MW	37499
Antigen Region	175-204

Additional Information

Gene ID	64757
Other Names	Mitochondrial amidoxime-reducing component 1, mARC1, 1---, Molybdenum cofactor sulfurase C-terminal domain-containing protein 1, MOSC domain-containing protein 1, Moco sulfurase C-terminal domain-containing protein 1, MARC1, MOSC1
Target/Specificity	This MOSC1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 175-204 amino acids from the Central region of human MOSC1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MOSC1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

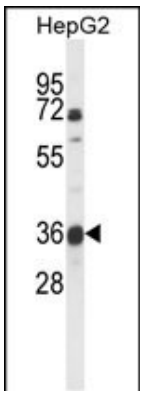
Name	MTARC1 (HGNC:26189)
Synonyms	MARC1, MOSC1

Function	Catalyzes the reduction of N-oxygenated molecules, acting as a counterpart of cytochrome P450 and flavin-containing monooxygenases in metabolic cycles (PubMed:19053771, PubMed:21029045, PubMed:30397129). As a component of prodrug-converting system, reduces a multitude of N-hydroxylated prodrugs particularly amidoximes, leading to increased drug bioavailability (PubMed:19053771). May be involved in mitochondrial N(omega)-hydroxy-L-arginine (NOHA) reduction, regulating endogenous nitric oxide levels and biosynthesis (PubMed:21029045). Postulated to cleave the N-OH bond of N-hydroxylated substrates in concert with electron transfer from NADH to cytochrome b5 reductase then to cytochrome b5, the ultimate electron donor that primes the active site for substrate reduction (PubMed:19053771, PubMed:21029045).
Cellular Location	Mitochondrion outer membrane; Single-pass type II membrane protein. Membrane; Lipid-anchor. Note=Mitochondrial import is mediated by AA 1-40 and requires ATP

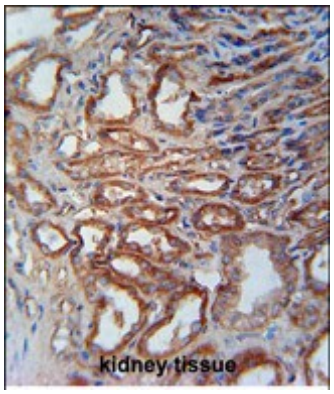
References

Gruenewald, S., et al. J. Med. Chem. 51(24):8173-8177(2008) Anantharaman, V., et al. FEMS Microbiol. Lett. 207(1):55-61(2002)

Images



Western blot analysis of MOSC1 Antibody (Center) (Cat. #AP9754c) in HepG2 cell line lysates (35ug/lane). MOSC1 (arrow) was detected using the purified Pab.



MOSC1 Antibody (Center) (Cat. #AP9754c) immunohistochemistry analysis in formalin fixed and paraffin embedded human kidney tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the MOSC1 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

Citations

- Divergent role of Mitochondrial Amidoxime Reducing Component 1 (MARC1) in human and mouse
- The involvement of mitochondrial amidoxime reducing components 1 and 2 and mitochondrial cytochrome b5 in N-reductive metabolism in human cells.
- The Pivotal Role of the Mitochondrial Amidoxime Reducing Component 2 in Protecting Human Cells Against Apoptotic

Effects of the Base Analog N6-Hydroxylaminopurine.

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