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ETHE1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6641c

Product Information

Application	WB, FC, IHC-P, E
Primary Accession	O95571
Other Accession	Q9DCM0
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB20157
Calculated MW	27873
Antigen Region	103-130

Additional Information

Gene ID	23474
Other Names	Persulfide dioxygenase ETHE1, mitochondrial, Ethylmalonic encephalopathy protein 1, Hepatoma subtracted clone one protein, Sulfur dioxygenase ETHE1, ETHE1, HSCO
Target/Specificity	This ETHE1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 103-130 amino acids from the Central region of human ETHE1.
Dilution	WB~~1:1000 FC~~1:10~50 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 prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	ETHE1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ETHE1
Synonyms	HSCO

Function	Sulfur dioxygenase that plays an essential role in hydrogen sulfide catabolism in the mitochondrial matrix. Hydrogen sulfide (H(2)S) is first oxidized by SQRDL, giving rise to cysteine persulfide residues. ETHE1 consumes molecular oxygen to catalyze the oxidation of the persulfide, once it has been transferred to a thiophilic acceptor, such as glutathione (R-SSH). Plays an important role in metabolic homeostasis in mitochondria by metabolizing hydrogen sulfide and preventing the accumulation of supraphysiological H(2)S levels that have toxic effects, due to the inhibition of cytochrome c oxidase. First described as a protein that can shuttle between the nucleus and the cytoplasm and suppress p53-induced apoptosis by sequestering the transcription factor RELA/NFKB3 in the cytoplasm and preventing its accumulation in the nucleus (PubMed:12398897).
Cellular Location	Cytoplasm. Nucleus. Mitochondrion matrix
Tissue Location	Ubiquitously expressed.

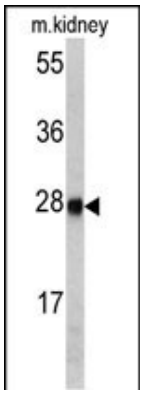
Background

ETHE1 is a sulfur dioxygenase that localizes within the mitochondrial matrix. The enzyme functions in sulfide catabolism. Mutations in its gene result in ethylmalonic encephalopathy.

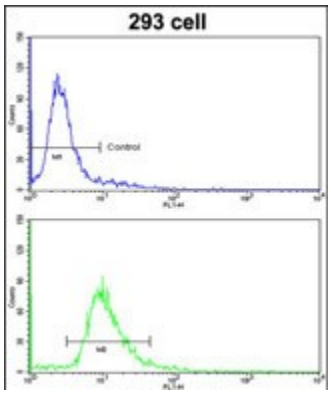
References

Tiranti,V., Nat. Med. 15 (2), 200-205 (2009)
Mineri,R., J. Med. Genet. 45 (7), 473-478 (2008)

Images

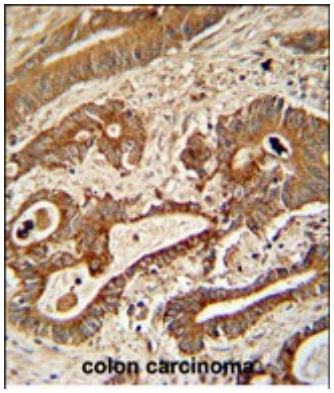


Western blot analysis of ETHE1 antibody (Center) (Cat. #AP6641c) in mouse kidney tissue lysates (35ug/lane). ETHE1 (arrow) was detected using the purified Pab.

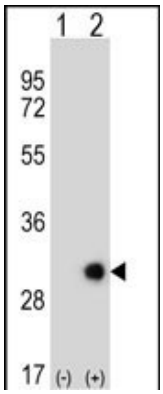


Flow cytometric analysis of 293 cells using ETHE1 Antibody (Center)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

ETHE1 Antibody (Center) (Cat. #AP6641c) immunohistochemistry analysis in formalin fixed and



paraffin embedded human colon carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the ETHE1 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



Western blot analysis of ETHE1 (arrow) using rabbit polyclonal ETHE1 Antibody (Center) (Cat. #AP6641c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the ETHE1 gene.