

ME2 Antibody

Catalog # ASC11774

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	P23368
Other Accession	NP_002387 , 4505145
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	65444
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	ME2 antibody can be used for detection of ME2 by Western blot at 1 - 2 μ g/ml. Antibody can also be used for Immunohistochemistry at 5 μ g/mL. For Immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	4200
Other Names	NAD-dependent malic enzyme, mitochondrial, NAD-ME, 1.1.1.38, Malic enzyme 2, ME2
Target/Specificity	ME2; ME2 antibody is human specific. At least two isoforms of ME2 are known to exist; this antibody will detect both isoforms. ME2 antibody is predicted not to cross-react with ME1.
Reconstitution & Storage	ME2 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.
Precautions	ME2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ME2
Function	NAD-dependent mitochondrial malic enzyme that catalyzes the oxidative decarboxylation of malate to pyruvate.
Cellular Location	Mitochondrion matrix

Background

ME2 is a homotetrameric, mitochondrial NAD-dependent malic enzyme that catalyzes the oxidative decarboxylation of malate to pyruvate (1). It is related to malic enzyme 1 (ME1), a cytoplasmic NADP-dependent enzyme that generates NADPH for fatty acid biosynthesis (2). The expression of both malic enzymes is reciprocally regulated by p53; this regulation has been shown to modulate metabolism and senescence (3). Certain single-nucleotide polymorphism haplotypes of the ME2 gene have been shown to increase the risk for idiopathic generalized epilepsy (4).

References

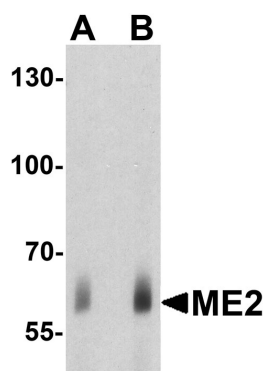
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Gonzalez-Manchon C, Ferrer M, Ayuso MS, et al. Cloning, sequencing and functional expression of a cDNA encoding a NADP-dependent malic enzyme from human liver. *Gene* 1995;159:255-60.

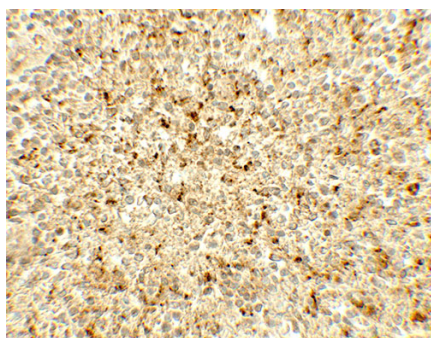
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Lenzen KP, Heils A, Lorenz S, et al. Association analysis of malic acid enzyme 2 gene polymorphisms with idiopathic generalized epilepsy. *Epilepsia* 2005; 46:1637-41.

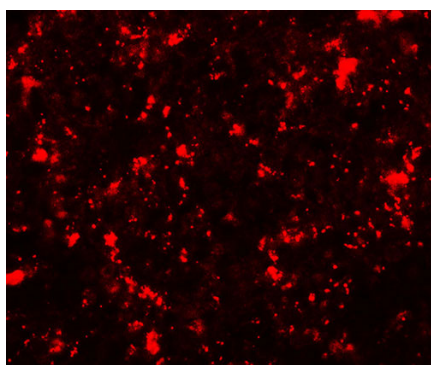
Images



Western blot analysis of ME2 in human spleen tissue lysate with ME2 antibody at (A) 1 and (B) 2 μ g/ml.



Immunohistochemistry of ME2 in human spleen tissue with ME2 antibody at 5 μ g/mL.



Immunofluorescence of ME2 in human spleen tissue with ME2 antibody at 20 μ g/mL.

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