

Malic Enzyme 2 Antibody



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP	Reactivity: H Mk	Sensitivity: Endogenous	MW (kDa): 65	Source/Isotype: Rabbit	UniProt ID: #P23368	Entrez-Gene Id: 4200
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Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Malic Enzyme 2 Antibody recognizes endogenous levels of total malic enzyme 2 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly450 of human malic enzyme 2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Cytosolic malic enzyme (ME1) catalyzes the conversion of malate and NADP⁺ to pyruvate and NADPH (1,2). NADPH is then used for fatty acid biosynthesis and lipogenesis (1,2). Cytosolic malic enzyme was shown to mediate high fat diet-induced adiposity (1). Mitochondrial malic enzyme (ME2) preferentially uses NAD⁺ to catalyze the conversion of malate to pyruvate with the concomitant generation of NADH (2). Recent studies have demonstrated that the tumor suppressor p53 regulates cell metabolism and proliferation by repressing the expression of both cytosolic malic enzyme and mitochondrial malic enzyme (3).

Background References

1. Al-Dwairi, A. et al. (2012) *PLoS One* 7, e46716.
2. Pongratz, R.L. et al. (2007) *J Biol Chem* 282, 200-7.
3. Jiang, P. et al. (2013) *Nature* 493, 689-93.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **Mk:** Monkey

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