ME1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	ME1, Polyclonal Antibody
Full Product Name	ME1 (NADP-dependent Malic Enzyme, NADP-ME, Malic Enzyme 1) (MaxLight 405)
Product Gene Name	anti-ME1 antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight405.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human ME1.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amo
Molecular Weight	64,150 Da
Chromosome Location	Chromosome: 6; NC_000006.11 (83920108..84140938, complement). Location: 6q12
OMIM	154250
3D Structure	ModBase 3D Structure for P48163
Immunogen	Full length human ME1, aa1-572 (NP_002386.1).
Immunogen Sequence	MEPEAPRRRHTHQRGYLLTRNPHLNKDLAFTLEERQQLNIHGLLPPSFNSQEIQVLRVVKNFEHLNSDFDRYLLLMDLQDRNEKLFYRVLTSDIEKFMPIV
Conjugate	MaxLight405
Note	Preservative Free
Product Categories/Family for anti-ME1 antibody	Antibodies; Enzymes
Applications Tested/Suitable for anti-ME1 antibody	Western Blot (WB)
Application Notes for anti-ME1 antibody	Applications are based on unconjugated antibody.

Related Product Information for anti-ME1 antibody	MaxLight405 is a new Violet photostable dye conjugate comparable to Alexa Fluor 405, PacificBlue, Brilliant Violet 421 and offers better labeling efficie
Other Notes	Small volumes of anti-ME1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessa
Searchable Terms for ME1 purchase	MBS6385164 is an antibody targeting ME1. Also known as ME1 (NADP-dependent Malic Enzyme, NADP-ME, Malic Enzyme 1) (MaxLight 405). React

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ME1. It may not necessarily be applicable to this product.

NCBI GI #	4505143
NCBI GeneID	4199
NCBI Accession #	NP_002386.1
UniProt Primary Accession #	P48163
UniProt Secondary Accession #	Q16797; Q16855; Q53F72; Q5VWA2; Q9BWX8; Q9H1W3; Q9UIY4
UniProt Related Accession #	P48163
GenBank Nucleotide #	NM_002395.3
NCBI Official Full Name	NADP-dependent malic enzyme
NCBI Official Synonym Full Names	malic enzyme 1, NADP(+)-dependent, cytosolic
NCBI Official Symbol	ME1
NCBI Official Synonym Symbols	MES; HUMNDME
UniProt Protein Name	NADP-dependent malic enzyme
UniProt Synonym Protein Names	Malic enzyme 1
Protein Family	NADP-dependent malic enzyme
UniProt Gene Name	ME1
UniProt Synonym Gene Names	NADP-ME
UniProt Entry Name	MAOX_HUMAN
NCBI Protein Information	NADP-dependent malic enzyme; NADP-ME; malate dehydrogenase; malic enzyme 1, soluble; Malic enzyme, cytoplasmic; pyruvic-malic carboxylase
NCBI Summary for ME1	This gene encodes a cytosolic, NADP-dependent enzyme that generates NADPH for fatty acid biosynthesis. The activity of this enzyme, the reversible oxidative decarboxylation of malate, links the glycolytic and citric acid cycles. The regulation of expression for this gene is complex. Increased expression can result from elevated levels of thyroid hormones or by higher proportions of carbohydrates in the diet. [provided by RefSeq, Jul 2008]

UniProt Comments for ME1	ME1: a ubiquitous lipogenic enzyme of the malic enzymes family. Converts (S)-malate + NADP+ ?? pyruvate + CO2 + NADPH. Levels of ME1 and ATP-citrate lyase mRNA, another lipogenic enzyme, are coordinately increased 5-7 fold during the differentiation of 3T3-L1 preadipocytes into adipocytes. Up-regulated by short-term dietary restriction in mice. The cycling of pyruvate by ME1 generates cytosolic NADPH, whereas mitochondrial ME2 responds to elevated amino acids and serves to supply sufficient pyruvate for increased Krebs cycle flux when glucose is limiting. Protein type: Carbohydrate Metabolism - pyruvate; EC 1.1.1.40; Oxidoreductase Chromosomal Location of Human Ortholog: 6q12 Cellular Component: mitochondrion; cytosol Molecular Function: malate dehydrogenase (decarboxylating) activity; malic enzyme activity; electron carrier activity; manganese ion binding; malate dehydrogenase (oxaloacetate-decarboxylating) (NADP+) activity; NADP binding; ADP binding; NAD binding; oxaloacetate decarboxylase activity Biological Process: malate metabolic process; carbohydrate metabolic process; response to hormone stimulus; cellular lipid metabolic process; NADP biosynthetic process; protein tetramerization; response to carbohydrate stimulus
Research Articles on ME1	**1.** p53 represses the expression of the tricarboxylic-acid-cycle-associated malic enzymes ME1 and ME2 in human and mouse cells
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