Product Data Sheet:
α-Enolase Mouse Monclonal Antibody

Cat. No:	MAB-94397
Conjugate:	Unconjugated
Size:	100 ug
Clone:	253
Concentration:	1mg/ml
Host:	Mouse
Isotype:	IgG1
Immunogen:	N-terminal 12 amino acids of bovine enolase 1
Reactivity:	Hu, Rt, Ms, Bo, Po, Ho
Applications:	Western Blot: 1:5,000-1:10,000 Immunocytchemisty: 1:2,000-1:5,000 Immunofluorescence: 1:2,000-1:5,000 Immunohistochemistry:1:1,000
Molecular Weight:	47 kDa
Purification:	Purified
Background:	Enolase 1 is an enzyme which catalyzes the conversion of 2-phosphoglycerate to phosphoenolpyruvate in the glycolytic pathway, and also the reverse reaction in gluconeogenesis. It is one of three mammalian enolases, which closely are related in protein sequence (see here), and have different cell type specific expression patterns, so that antibodies to them are useful cell type specific markers. Enolase 1 is also known as α enolase and as non-neuronal enolase or NNE. Neuron specific enolase (NSE) corresponds to enolase 2 or γ enolase and is heavily expressed in neuronal cells. The third enolase, enolase 3 or β enolase, is expressed in muscle cells. Enolase 1 is expressed in most kinds of tissue, but is absent from neurons. Abnormal expression of enolase 1 is associated with tumor progression in some breast and head and neck cancer (1,2). We also market antibodies directed against neuronal specific enolase, NSE. A switch from enolase 1 to NSE expression occurs in the development of neurons (3). The α-Enolase antibody was made against the N-terminal 12 amino acids of enolase 1, the sequence MSILKLVAREIF formed into an 8 armed MAP construct using the procedure of Tam et al. (4). This produces a dendrimer presenting 8 peptides to the immune system obviating the need for coupling to KLH or other carrier protein. The antibody works well for western blotting and for IF, ICC and IHC.
Form:	Liquid
Buffer:	Purified antibody at 1mg/mL in 50% PBS, 50% glycerol plus 5mM NaN3
Storage:	Store at 4°C for short term, for longer term at -20°C

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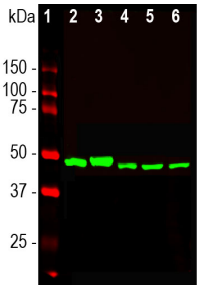
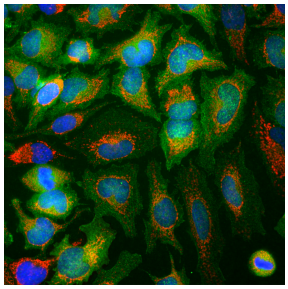


Western blot analysis of different cell lysates using mouse mAb to α- enolase, dilution 1:10,000 in green: [1] protein standard (red), [2] NIH-3T3 l, [3] C6, [4] HEK293, [5] HeLa, and [6] SH-SY5Y cells. A strong single band at 47kDa corresponds to the α-enolase protein.



Immunofluorescent analysis of HeLa cells stained with mouse mAb to α-enolase, dilution 1:500 in green and costained with chicken pAb to HSP60, CPCA-HSP60, dilution 1:5,000, in red. The blue is DAPI staining of nuclear DNA. The α-Enolase antibody reveals strong cytoplasmic staining while the chicken HSP60 antibody specifically labels mitochondria in these cells.

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