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ENO1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6526c

Product Information

Application	IHC-P, FC, IF, WB, E
Primary Accession	P06733
Other Accession	P08734, P04764, P17182, Q4R5L2, P51913, Q9XSJ4
Reactivity	Human, Mouse
Predicted	Bovine, Chicken, Monkey, Mouse, Rat, Xenopus, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	47169
Antigen Region	178-205

Additional Information

Gene ID	2023
Other Names	Alpha-enolase, 2-phospho-D-glycerate hydro-lyase, C-myc promoter-binding protein, Enolase 1, MBP-1, MPB-1, Non-neural enolase, NNE, Phosphopyruvate hydratase, Plasminogen-binding protein, ENO1, ENO1L1, MBPB1, MPB1
Target/Specificity	This ENO1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 178-205 amino acids from the Central region of human ENO1.
Dilution	IHC-P~~1:100~500 FC~~1:10~50 IF~~1:10~50 WB~~1:1000 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	ENO1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ENO1 (HGNC:3350)

Synonyms	ENO1L1, MBPB1, MPB1
Function	Enolase that catalyzes the conversion of 2-phosphoglycerate to phosphoenolpyruvate in glycolysis and the reverse reaction in gluconeogenesis (PubMed:1369209, PubMed:29775581). Also involved in various processes such as growth control, hypoxia tolerance and allergic responses (PubMed:10802057, PubMed:12666133, PubMed:2005901, PubMed:29775581). May also function in the intravascular and pericellular fibrinolytic system due to its ability to serve as a receptor and activator of plasminogen on the cell surface of several cell-types such as leukocytes and neurons (PubMed:12666133). Stimulates immunoglobulin production (PubMed:1369209).
Cellular Location	Cytoplasm. Cell membrane. Cytoplasm, myofibril, sarcomere, M line. Note=Can translocate to the plasma membrane in either the homodimeric (alpha/alpha) or heterodimeric (alpha/gamma) form. ENO1 is localized to the M line
Tissue Location	The alpha/alpha homodimer is expressed in embryo and in most adult tissues. The alpha/beta heterodimer and the beta/beta homodimer are found in striated muscle, and the alpha/gamma heterodimer and the gamma/gamma homodimer in neurons

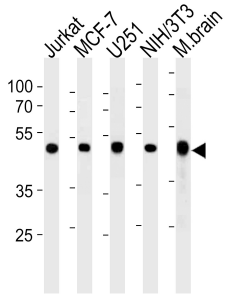
Background

ENO1 is one of three enolase isoenzymes found in mammals; it is alpha-enolase, a homodimeric soluble enzyme, and also a shorter monomeric structural lens protein, tau-crystallin. The two proteins are made from the same message. The full length protein, the isoenzyme, is found in the cytoplasm. The shorter protein is produced from an alternative translation start, is localized to the nucleus, and has been found to bind to an element in the c-myc promoter.

References

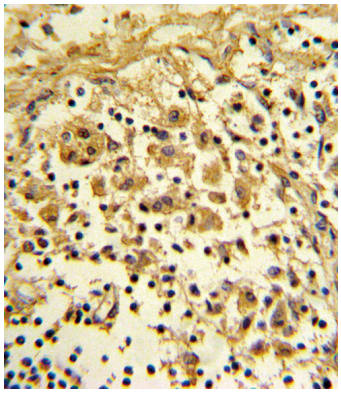
Cappello,P., Int. J. Cancer 125 (3), 639-648 (2009) Obermajer,N., Int. J. Biochem. Cell Biol. 41 (8-9), 1685-1696 (2009) Wygrecka,M., Blood 113 (22), 5588-5598 (2009)

Images

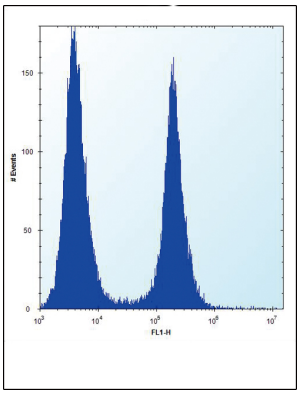


ENO1 Antibody (Center) (Cat. #AP6526c) western blot analysis in Jurkat,MCF-7,U251,mouse NIH/3T3 cell line and mouse brain tissue lysates (35ug/lane).This demonstrates the ENO1 antibody detected the ENO1 protein (arrow).

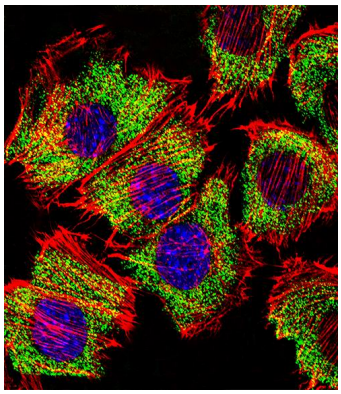
Formalin-fixed and paraffin-embedded human lymph reacted with ENO1 Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical



relevance has not been evaluated.



ENO1 Antibody (Center) (Cat. #AP6526c) flow cytometric analysis of Hela cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated donkey-anti-rabbit secondary antibodies were used for the analysis.



Fluorescent confocal image of C2C12 cell stained with ENO1 Antibody (Center)(Cat#AP6526c).C2C12 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with ENO1 primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C). Nuclei were counterstained with DAPI (blue) (10 µg/ml, 10 min). ENO1 immunoreactivity is localized to Cytoplasm significantly.

Citations

- Proteomic, Metabolomic, and Fatty Acid Profiling of Small Extracellular Vesicles from Glioblastoma Stem-Like Cells and Their Role in Tumor Heterogeneity

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