10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ENO1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5166

Product Information

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

Additional Information

Gene ID	2023
Antigen Region	178-205
Other Names	ENO1; ENO1L1; MBPB1; MPB1; Alpha-enolase; 2-phospho-D-glycerate hydro-lyase; C-myc promoter-binding protein; Enolase 1; MBP-1; MPB-1; Non-neural enolase; Phosphopyruvate hydratase; Plasminogen-binding protein
Dilution	IF~~1:10~50 FC~~1:10~50 IHC-P~~1:100~500 WB~~1:1000
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.
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

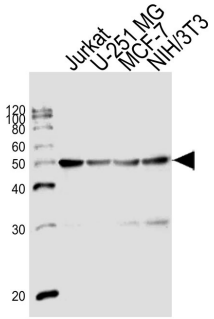
Background

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

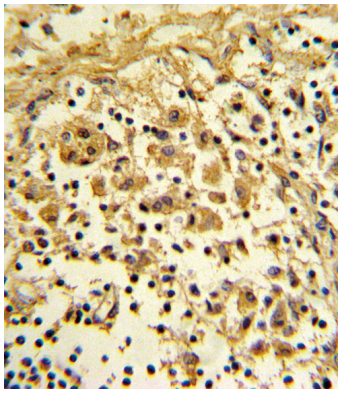
Cappello,P., Int. J. Cancer 125 (3), 639-648 (2009) Obermajer,N., Int. J. Biochem. Cell Biol. 41 (8-9), 1685-1696 (2009) Wygrecka,M., Blood 113 (22), 5588-5598 (2009)

Images

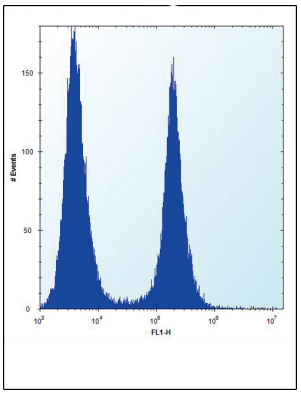


Western blot analysis of lysates from Jurkat,U-251 MG,MCF-7,mouse NIH/3T3 cell line (from left to right), using ENO1 Antibody (Center)(Cat. #AW5166). AW5166 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.Lysates at 20ug per lane.

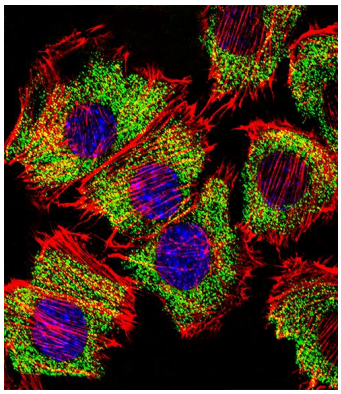
Formalin-fixed and paraffin-embedded human lymph reacted with ENO1 Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical



relevance has not been evaluated.



ENO1 Antibody (Center) (Cat. #AW5166) 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#AW5166).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.

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