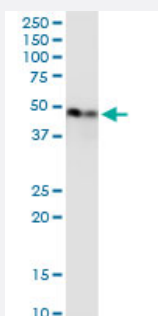


ENO1 monoclonal antibody (M01), clone 8G8

Catalog # H00002023-M01

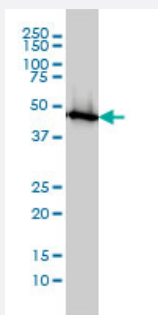
Size 100 ug

Applications



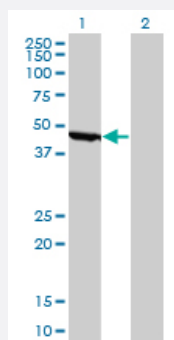
Western Blot (Tissue lysate)

ENO1 monoclonal antibody (M01), clone 8G8. Western Blot analysis of ENO1 expression in human colon.



Western Blot (Cell lysate)

ENO1 monoclonal antibody (M01), clone 8G8 Western Blot analysis of ENO1 expression in MCF-7 (Cat # L046V1).

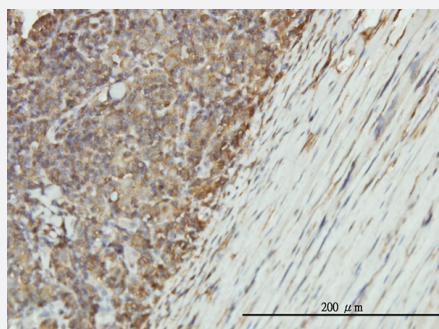


Western Blot (Transfected lysate)

Western Blot analysis of ENO1 expression in transfected 293T cell line by ENO1 monoclonal antibody (M01), clone 8G8.

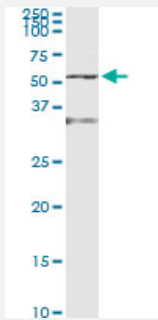
Lane 1: ENO1 transfected lysate(47 KDa).

Lane 2: Non-transfected lysate.



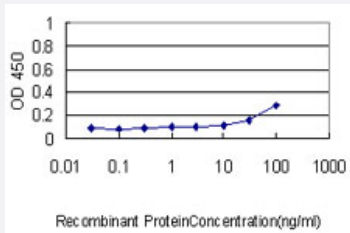
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to ENO1 on formalin-fixed paraffin-embedded human lymphoma tissue. [antibody concentration 1 ug/ml]



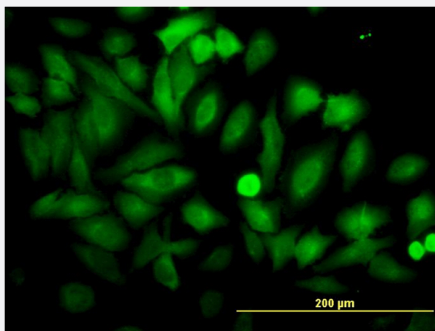
Immunoprecipitation

Immunoprecipitation of ENO1 transfected lysate using anti-ENO1 monoclonal antibody and Protein A Magnetic Bead, and immunoblotted with ENO1 MaxPab rabbit polyclonal antibody.



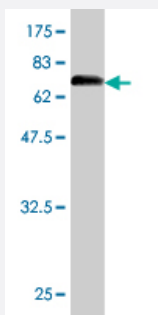
Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged ENO1 is approximately 0.3ng/ml as a capture antibody.



Immunofluorescence

Immunofluorescence of monoclonal antibody to ENO1 on HeLa cell. [antibody concentration 10 ug/ml]



Western Blot detection against Immunogen (73.48 KDa) .

Specification

Product Description

Mouse monoclonal antibody raised against a full length recombinant ENO1.

Immunogen

ENO1 (AAH22545, 1 a.a. ~ 434 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

Sequence	MSILKIHAREIFDSRGNPTVEVDLFTSKGLFRAAVPSGASTGIYEALRLDNDKTRYMGKGVSKAV EHINKTIAPALVSKKLVTEQEIKDKLMIEMDGTENKSKFGANAILGVSLAVCKAGAVEKGVPLYRHI ADLAGNSEVILPVPAFNVINGGSHAGNKLAMQEFMILPVGAANFREAMRIGAEVYHNLKNVIKEY GKDATNVGDEGGFAPNILENKEGLELLKTAIGKAGYTDKVVIGMDVAASEFFRSGKYDLDFKSPD DPSRYISPDQLADLYKSFIDYPVVSIEDPFDQDDWGAWQKFTASAGIQVVGDDLTVTNPKRIAKA VNEKSCNCLLLKVNQIGSVTESLQACKLAQANGWGMVSHRSGETEDTFIADLVVGLCTGQIKTG APCRSERLAKYNQLLRIEEEELGSKAKFAGRNFRNPLAK
Host	Mouse
Reactivity	Human
Isotype	IgG1 kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (73.48 KDa) .
Storage Buffer	In 1x PBS, pH 7.4
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

- Western Blot (Tissue lysate)

ENO1 monoclonal antibody (M01), clone 8G8. Western Blot analysis of ENO1 expression in human colon.

[Protocol Download](#)

- Western Blot (Cell lysate)

ENO1 monoclonal antibody (M01), clone 8G8 Western Blot analysis of ENO1 expression in MCF-7 (Cat # L046V1).

[Protocol Download](#)

- Western Blot (Transfected lysate)

Western Blot analysis of ENO1 expression in transfected 293T cell line by ENO1 monoclonal antibody (M01), clone 8G8.

Lane 1: ENO1 transfected lysate(47 KDa).

Lane 2: Non-transfected lysate.

[Protocol Download](#)

- Western Blot (Recombinant protein)

[Protocol Download](#)

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to ENO1 on formalin-fixed paraffin-embedded human lymphoma tissue. [antibody concentration 1 ug/ml]

[Protocol Download](#)

- Immunoprecipitation

Immunoprecipitation of ENO1 transfected lysate using anti-ENO1 monoclonal antibody and Protein A Magnetic Bead, and immunoblotted with ENO1 MaxPab rabbit polyclonal antibody.

[Protocol Download](#)

- Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged ENO1 is approximately 0.3ng/ml as a capture antibody.

[Protocol Download](#)

- ELISA

- Immunofluorescence

Immunofluorescence of monoclonal antibody to ENO1 on HeLa cell. [antibody concentration 10 ug/ml]

Gene Info — ENO1

Entrez GeneID	2023
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GeneBank Accession#	BC022545
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Protein Accession#	AAH22545
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Gene Name	ENO1
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Gene Alias	ENO1L1, MBP-1, MPB1, NNE, PPH
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Gene Description	enolase 1, (alpha)
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Omim ID	172430
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Gene Ontology	Hyperlink
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Gene Summary

This gene encodes one of three enolase isoenzymes found in mammals; it encodes alpha-enolase, a homodimeric soluble enzyme, and also encodes 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. A pseudogene has been identified that is located on the other arm of the same chromosome. [provided by RefSeq]

Other Designations

2-phospho-D-glycerate hydro-lyase|MYC promoter-binding protein 1|OTTHUMP00000001706|alpha enolase like 1|enolase 1|non-neural enolase|phosphopyruvate hydratase|tau-crystallin

Publication Reference

- [Unrevealed roles of extracellular enolase-1 \(ENO1\) in promoting glycolysis and pro-cancer activities in multiple myeloma via hypoxia-inducible factor 1α.](#)

I-Che Chung, Wei-Ching Huang, Yung-Tsang Huang, Mao-Lin Chen, An-Wei Tsai, Pei-Yu Wu, Ta-Tung Yuan.

Oncology Reports 2023 Nov; 50(5):205.

Application: Flow Cyt, Human, RPMI-8226, U266 cells

- [Riboregulation of Enolase 1 activity controls glycolysis and embryonic stem cell differentiation.](#)

Ina Huppertz, Joel I Perez-Perri, Panagiotis Mantas, Thileepan Sekaran, Thomas Schwarzl, Francesco Russo, Dunja Ferring-Appel, Zuzana Koskova, Lyudmila Dimitrova-Paternoga, Eleni Kafkia, Janosch Hennig, Pierre A Neveu, Kiran Patil, Matthias W Hentze.

Molecular Cell 2022 Jul; 82(14):2666.

Application: IP-WB, WB-Ce, Human, HeLa cells

- [Alpha-enolase staining patterns in the renal tissues of cats with and without chronic kidney disease.](#)

McLeland S, Quimby J, Lappin MR.

Veterinary Immunology and Immunopathology 2019 Jun; 212:23.

Application: IHC-P, Cat, Kidney

- [Protein arginine methyltransferase 5 mediates enolase-1 cell surface trafficking in human lung adenocarcinoma cells.](#)

Zakrzewicz D, Didiasova M, Krüger M, Giaimo BD, Borggreffe T, Mieth M, Hocke AC, Zakrzewicz A, Schaefer L, Preissner KT, Wygrecka M.

Biochimica et Biophysica Acta 2018 May; 1864(5 Pt A):1816.

Application: Flow Cyt, IP, Human, A-549 cells

- [Enolase-1 expression in the stratum corneum is elevated with parakeratosis of atopic dermatitis and disrupts the cellular tight junction barrier in keratinocytes.](#)

Tohgasaki T, Ozawa N, Yoshino T, Ishiwatari S, Matsukuma S, Yanagi S, Fukuda H.

International Journal of Cosmetic Science 2018 Apr; 40(2):178.

Application: ELISA, IF, WB, Human, Epidermis cell stratum corneum (SC) sample, Human epidermal sections, keratinocytes

- [The interaction with caveolae-associated proteins regulates enolase-1 subcellular localization.](#)

Zakrzewicz D, Didiasova M, Zakrzewicz A, Hocke AC, Uhle F, Markart P, Preissner KT, Wygrecka M.

The Biochemical Journal 2014 Jun; 460(2):295.

Application: IP, Human, MDA-MB-231 cell

- [Surface \$\alpha\$ -Enolase Promotes Extracellular Matrix Degradation and Tumor Metastasis and Represents a New Therapeutic Target.](#)

Kuan-Chung Hsiao, Neng-Yao Shih, Hsun-Lang Fang, Tze-Sing Huang, Ching-Chuan Kuo, Pei-Yi Chu, Yi-Mei Hung, Shao-Wen Chou, Yi-Yuan Yang, Gee-Chen Chang, Ko-Jiunn Liu.

PLoS One 2013 Jul; 8(7):e69354.

Application: Dot, Flow Cyt, IF, WB-Ce, Human, Mouse, A-549, H1355, H1568 cells, LL/2 Lewis lung carcinoma cells, PE089 lung cancer cells, Recombinant proteins

- [Overexpression of alpha-enolase correlates with poor survival in canine mammary carcinoma.](#)

Chu PY, Hsu NC, Liao AT, Shih NY, Hou MF, Liu CH.

BMC Veterinary Research 2011 Oct; 7:62.

Application: IHC-P, WB-Ti, Human, Canine mammary tumor

- [Systematic proteomic analysis of human hepatocellular carcinoma cells reveals molecular pathways and networks involved in metastasis.](#)

Yu Y, Shen H, Yu H, Zhong F, Zhang Y, Zhang C, Zhao J, Li H, Chen J, Liu Y, Yang P.

Molecular BioSystems 2011 Jun; 7(6):1908.

Application: WB-Ce, Human, MHCC97L, MHCC97H, HCCLM3, HCCLM6

- [Diagnostic Detection of Human Lung Cancer-Associated Antigen Using a Gold Nanoparticle-Based Electrochemical Immunosensor.](#)

Ho JA, Chang HC, Shih NY, Wu LC, Chang YF, Chen CC, Chou C.

Analytical Chemistry 2010 Jul; 82(14):5944.

Application: Func, Chemicals

- [Comparative proteomic analysis of Barrett's metaplasia and esophageal adenocarcinomas using 2-D liquid mass mapping.](#)

Zhao J, Chang AC, Li C, Shedden KA, Thomas DG, Misek DE, Manoharan AP, Giordano TJ, Beer DG, Lubman DM.

Molecular & Cellular Proteomics 2006 Jul; 6(6):987.

Application: IHCP, Human, Human Barrett's metaplasia, Human esophageal adenocarcinoma

Pathway

- [Biosynthesis of alkaloids derived from histidine and purine](#)
- [Biosynthesis of alkaloids derived from ornithine](#)
- [Biosynthesis of alkaloids derived from shikimate pathway](#)
- [Biosynthesis of alkaloids derived from terpenoid and polyketide](#)
- [Biosynthesis of phenylpropanoids](#)
- [Biosynthesis of plant hormones](#)
- [Biosynthesis of terpenoids and steroids](#)
- [Glycolysis / Gluconeogenesis](#)
- [Metabolic pathways](#)
- [RNA degradation](#)

Disease

- [Myocardial Infarction](#)