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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

PRODUCT INFORMATION



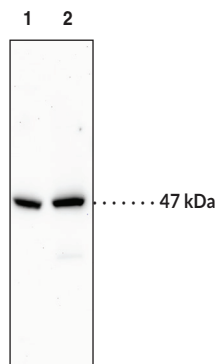
α -Enolase Polyclonal Antibody

Item No. 20491

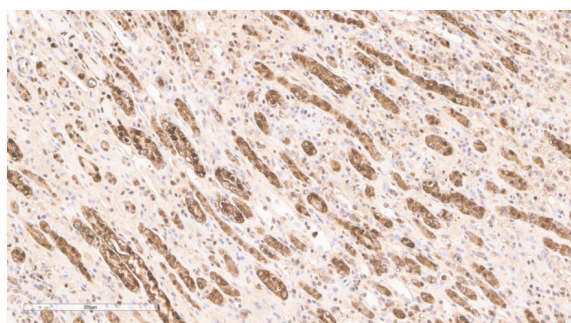
Overview and Properties

Contents:	This vial contains 500 μ l of protein A-purified polyclonal antibody.
Synonym:	Enolase-1, MBP-1, MPB-1, NNE, Non-Neural Enolase, Phosphopyruvate Hydratase, Plasminogen-Binding Protein, ENO1
Immunogen:	Full length recombinant human α -enolase
Species Reactivity:	(+) Human; other species not tested
Uniprot No.:	P06733
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	\geq 3 years
Storage Buffer:	TBS, pH 7.4, with 50% glycerol, 0.1% BSA, and 0.02% sodium azide
Host:	Rabbit
Applications:	ELISA, Immunohistochemistry (IHC), and Western blot (WB); the recommended starting dilution for WB is 1:200, 1:100 for IHC, and 1:500 for ELISA. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: HeLa cell lysates (25 μ g)
Lane 2: MCF-7 cell lysates (25 μ g)



Immunohistochemistry analysis of formalin-fixed, paraffin-embedd (FFPE) human kidney tissue after heat induced antigen retrieval in pH 6.0 citrate buffer. After incubation with α -Enolase Polyclonal Antibody (Item No. 20491) at a 1:100 dilution, slides were incubated with biotinylated secondary antibody, followed by alkaline phosphatase-streptavidin and chromogen (DAB).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



Description

α -Enolase, also known as enolase 1, is a glycolytic enzyme that catalyzes the conversion of 2-phosphoglycerate to phosphoenolpyruvate.¹ It is ubiquitously expressed in human tissues, including liver, spleen, kidney, and brain. In cells, α -enolase is primarily localized to the cytoplasm, however, an alternatively translated form localizes to the nucleus and lacks glycolytic enzyme activity.^{1,2} α -Enolase also functions as a cell surface receptor for plasminogen on pathogens and activated immune cells, as an oxidative stress protein in endothelial cells, and as a chromatin binding partner to facilitate transcription.²⁻⁴ The *ENO1* promoter contains a hypoxia-response element, allowing α -enolase to facilitate aerobic glycolysis and contribute to the Warburg effect in tumor cells.² α -Enolase is overexpressed in multiple tumors, including glioma, neuroblastoma, pancreatic, prostate, and hepatocellular carcinomas. Its role as a plasminogen receptor facilitates extracellular matrix degradation and cancer invasion.⁴ α -Enolase is an autoantigen in asthma, Hashimoto's encephalopathy, and rheumatoid arthritis, and has been found in the serum of pediatric patients with juvenile idiopathic arthritis.⁵⁻⁸ Cayman's α -Enolase Polyclonal Antibody can be used for Western blot and ELISA applications. The antibody recognizes α -enolase at ~47 kDa from human samples.

References

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