abcam

Product datasheet

Anti-ENO1 antibody [EPR19758] ab227978

Recombinant RabMAb

10 References 11 Images

Overview

Product name	Anti-ENO1 antibody [EPR19758]
Description	Rabbit monoclonal [EPR19758] to ENO1
Host species	Rabbit
Specificity	ab227978 does not cross-react with ENO2 or ENO3.
Tested applications	**Suitable for:** IHC-P, WB, ICC/IF, IP, Flow Cyt (Intra)
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: MCF7, RAW 264.7, Jurkat, HeLa, NIH/3T3 and C6 whole cell lysates; human skeletal muscle tissue lysate; mouse brain, heart and kidney tissue lysates; rat brain, heart, liver and spleen tissue lysates. IP: Jurkat whole cell lysate. IHC-P: Human pancreas and clear cell renal cell carcinoma tissue; mouse and rat pancreas tissue. ICC/IF: HeLa and NIH/3T3 cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 0.05% BSA, 40% Glycerol (glycerin, glycerine), PBS
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR19758
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab227978 in the following tested applications.

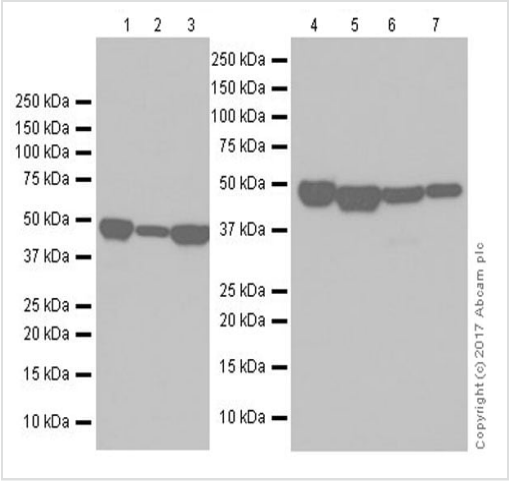
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/1000. Predicted molecular weight: 47 kDa.
ICC/IF		1/500.
IP		1/30.
Flow Cyt (Intra)		1/600.

Target

Function	Multifunctional enzyme that, as well as its role in glycolysis, plays a part in various processes such as growth control, hypoxia tolerance and allergic responses. 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. Stimulates immunoglobulin production. MBP1 binds to the myc promoter and acts as a transcriptional repressor. May be a tumor suppressor.
Tissue specificity	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.
Pathway	Carbohydrate degradation; glycolysis; pyruvate from D-glyceraldehyde 3-phosphate: step 4/5.
Sequence similarities	Belongs to the enolase family.
Developmental stage	During ontogenesis, there is a transition from the alpha/alpha homodimer to the alpha/beta heterodimer in striated muscle cells, and to the alpha/gamma heterodimer in nerve cells.
Post-translational modifications	ISGylated.
Cellular localization	Nucleus and Cytoplasm. Cell membrane. Cytoplasm > myofibril > sarcomere > M line. Can translocate to the plasma membrane in either the homodimeric (alpha/alpha) or heterodimeric (alpha/gamma) form. ENO1 is localized to the M line.

Images



Western blot - Anti-ENO1 antibody [EPR19758] (ab227978)

All lanes : Anti-ENO1 antibody [EPR19758] (ab227978) at 1/1000 dilution

Lane 1 : Mouse brain tissue lysate
Lane 2 : Mouse heart tissue lysate
Lane 3 : Mouse kidney tissue lysate
Lane 4 : Rat brain tissue lysate
Lane 5 : Rat heart tissue lysate
Lane 6 : Rat liver tissue lysate
Lane 7 : Rat spleen tissue lysate

Lysates/proteins at 10 µg per lane.

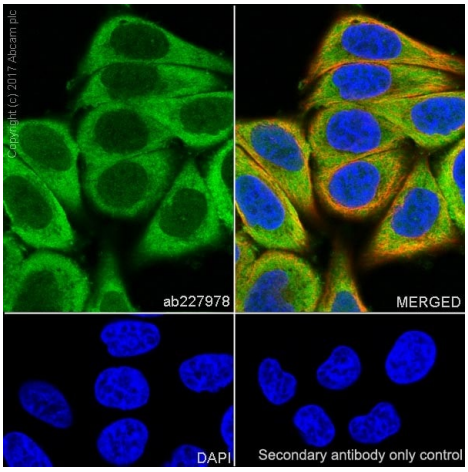
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Developed using the ECL technique.

Predicted band size: 47 kDa
Observed band size: 47 kDa

Exposure time: 3 minutes

Blocking and dilution buffer: 5% NFDM/TBST.

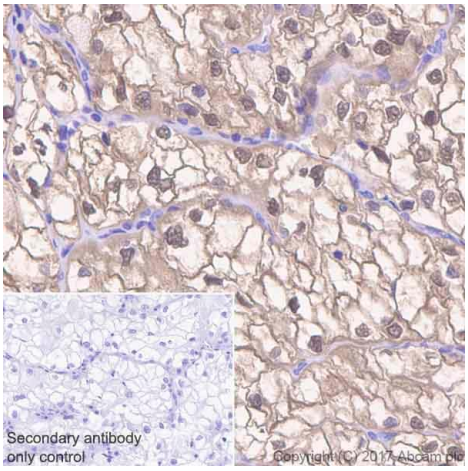


Immunocytochemistry/ Immunofluorescence - Anti-ENO1 antibody [EPR19758] (ab227978)

Immunofluorescent analysis of 4% paraformaldegyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human epithelial cell line from cervix adenocarcinoma) cells labeling ENO1 with ab227978 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic and weakly nuclear staining in HeLa cell line.

The nuclear counterstain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (**ab195889**) at 1/200 dilution (red).

-ve control: PBS instead of primary antibody, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution .

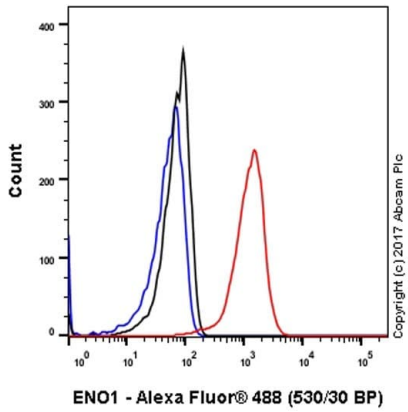


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ENO1 antibody [EPR19758] (ab227978)

Immunohistochemical analysis of paraffin-embedded human clear cell renal cell carcinoma tissue labeling ENO1 with ab227978 at 1/2000 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Membranous and nuclear staining in human clear cell kidney carcinoma (PMID: 26037892) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

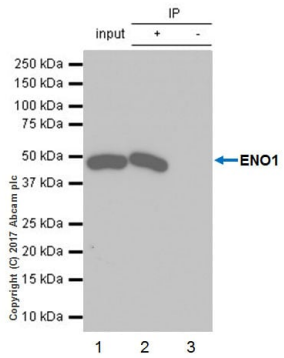
Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).



Flow Cytometry (Intracellular) - Anti-ENO1 antibody [EPR19758] (ab227978)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized HeLa (human epithelial cell line from cervix adenocarcinoma) cells labeling ENO1 with ab227978 at 1/600 dilution (red) compared witha Rabbit IgG, monoclonal [EPR25A] - Isotype Control (**ab172730**) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue).

Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**), at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-ENO1 antibody [EPR19758] (ab227978)

ENO1 was immunoprecipitated from 0.35 mg of Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate with ab227978 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab227978 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/10000 dilution.

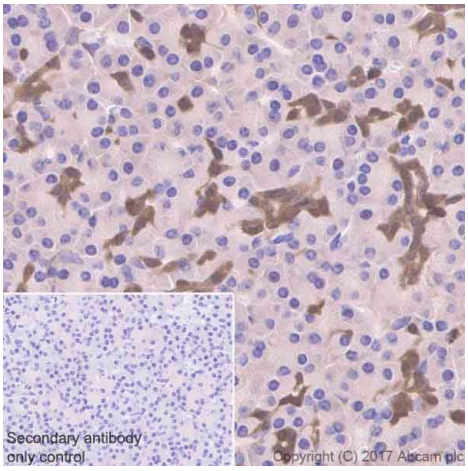
Lane 1: Jurkat whole cell lysate 10 µg (Input).

Lane 2: ab227978 IP in Jurkat whole cell lysate.

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab227978 in Jurkat whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 seconds.

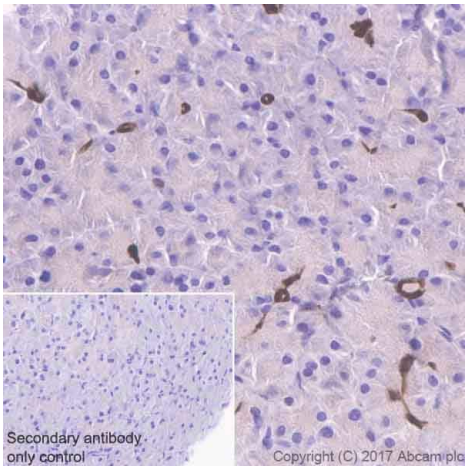


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ENO1 antibody [EPR19758] (ab227978)

Immunohistochemical analysis of paraffin-embedded human pancreas tissue labeling ENO1 with ab227978 at 1/2000 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Cytoplasmic and nuclear staining in medium-small ducts of human pancreas (PMID: 19425054) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).

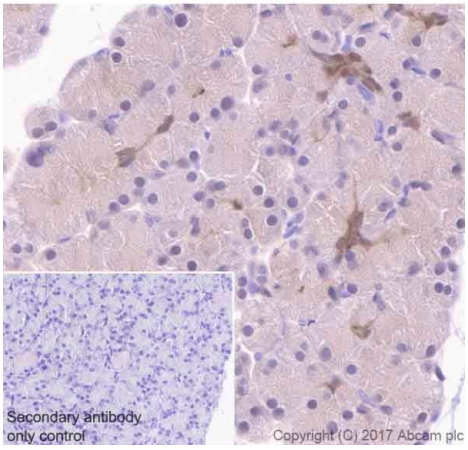


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ENO1 antibody [EPR19758] (ab227978)

Immunohistochemical analysis of paraffin-embedded mouse pancreas tissue labeling ENO1 with ab227978 at 1/2000 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Cytoplasmic and nuclear staining in medium-small ducts of mouse pancreas is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).

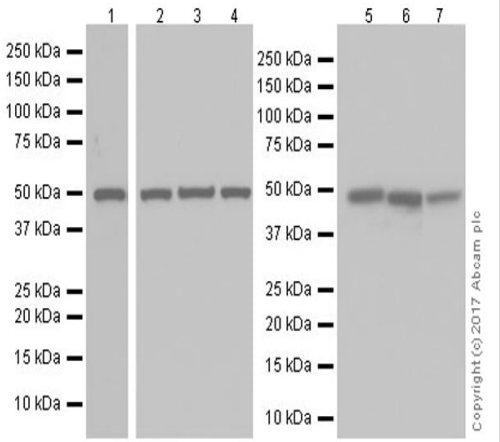


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ENO1 antibody [EPR19758] (ab227978)

Immunohistochemical analysis of paraffin-embedded rat pancreas tissue labeling ENO1 with ab227978 at 1/2000 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Cytoplasmic and nuclear staining in medium-small ducts of rat pancreas is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).



Western blot - Anti-ENO1 antibody [EPR19758] (ab227978)

All lanes : Anti-ENO1 antibody [EPR19758] (ab227978) at 1/1000 dilution

Lane 1 : Human skeletal muscle tissue lysate at 20 µg
Lane 2 : MCF7 (human breast adenocarcinoma cell line) whole cell lysate at 20 µg
Lane 3 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 20 µg
Lane 4 : Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate at 20 µg
Lane 5 : C6 (rat glial tumor glial cell line) whole cell lysate at 10 µg
Lane 6 : RAW 264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysate at 10 µg
Lane 7 : NIH/3T3 (mouse embryo fibroblast cell line) whole cell lysate at 10 µg

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Developed using the ECL technique.

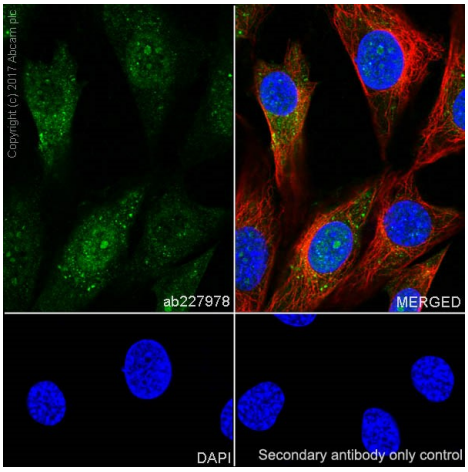
Predicted band size: 47 kDa
Observed band size: 47 kDa

Blocking and dilution buffer: 5% NFDM/TBST.

Exposure times.

Lane 1: 15 seconds.

Lanes 2-7: 1 second.

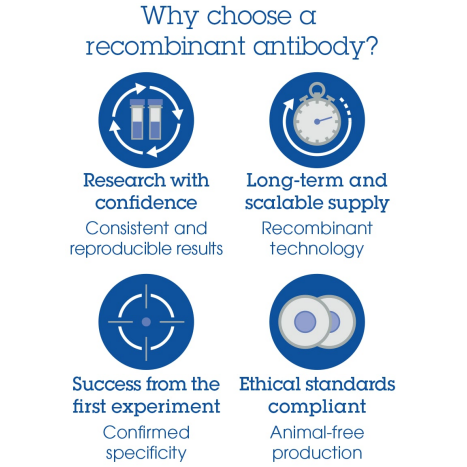


Immunocytochemistry/ Immunofluorescence - Anti-ENO1 antibody [EPR19758] (ab227978)

Immunofluorescent analysis of 4% paraformaldegyde-fixed, 0.1% Triton X-100 permeabilized NIH/3T3 (mouse embryo fibroblast cell line) cells labeling ENO1 with ab227978 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic and nuclear staining in NIH/3T3 cell line.

The nuclear counterstain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (**ab195889**) at 1/200 dilution (red).

-ve control: PBS instead of primary antibody, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution .



Anti-ENO1 antibody [EPR19758] (ab227978)

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