abcam

ab206120

Anti-ENO1 + ENO2 + ENO3 antibody [EPR10863(B)] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR10863(B)
Purification technique	Affinity purification Protein A
Concentration	1.046 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	-

Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

WB

Tested

Species	Mouse, Rat, Human, Recombinant fragment - Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human, Recombinant fragment - Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

Target data

See full target information ENO1

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). Isoform MBP-1. Binds to the myc promoter and acts as a transcriptional repressor. May be a tumor suppressor.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab206120 is the carrier-free version of ab155102.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Enolase 1 or alpha-enolase is an important enzyme in the glycolytic pathway. It catalyzes the conversion of 2-phosphoglycerate to phosphoenolpyruvate. We also refer to it as an enolase reaction. ENO1 protein has a molecular mass of approximately 47 kDa and is expressed in most tissues but found most abundantly in the brain muscle and liver. Additionally ENO1 can exist in both cytosolic and plasma membrane-associated forms playing functional roles in different cellular contexts.
Biological function summary	The ENO1 protein serves multiple functions beyond its glycolytic activity. It also acts as a plasminogen receptor on the cell surface aiding in the modulation of pericellular and extracellular matrix degradation processes. Through this role ENO1 influences cell migration and tissue remodeling. This protein can form part of larger protein complexes contributing to its versatility in various cellular functions.
Pathways	ENO1 plays a critical role in glycolysis a central metabolic pathway that converts glucose into pyruvate generating ATP as a result. In this pathway ENO1 closely interacts with other enzymes like phosphoglycerate kinase and pyruvate kinase. Additionally as a plasminogen receptor ENO1 links to the plasminogen activation pathway affecting fibrinolysis and cellular response to tissue injury.
Associated diseases and disorders	ENO1 is associated with cancer and neurodegenerative diseases. Overexpression or aberrant regulation of ENO1 often correlates with tumor progression and metastasis in cancers such as lung and breast cancer. In neurodegenerative disorders like Alzheimer's disease abnormal functioning of ENO1 can impact brain energy metabolism and neuron degeneration. ENO1's interaction with other proteins such as beta-enolase further connects it to these conditions influencing disease mechanisms and patient outcomes.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

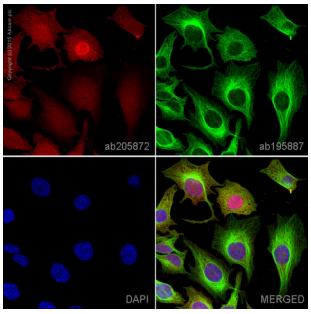
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

---

7 product images

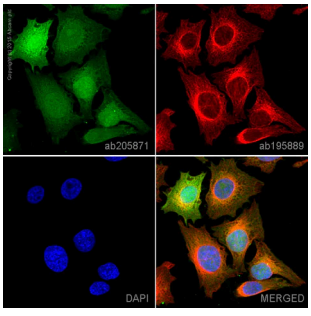


Immunocytochemistry/ Immunofluorescence - Anti-ENO1 + ENO2 + ENO3 antibody [EPR10863(B)] - BSA and Azide free (ab206120)

ENO1 + ENO2 + ENO3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-ENO1 + ENO2 + ENO3 antibody

Clone EPR10863(B) (ab206120) has been successfully conjugated by Abcam. This image was generated using Anti-ENO1 + ENO2 + ENO3 antibody [EPR10863(B)] (Alexa Fluor® 647). Please refer to ab205872 for protocol details.
ab205872 staining ENO1 + ENO2 + ENO3 in HeLa cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab205872 at a 1/250 dilution (shown in red) and ab195887, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 488), at a 1/250 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

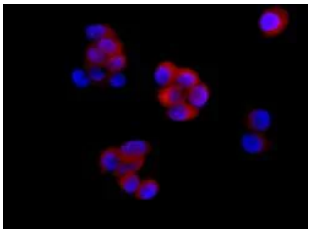


Immunocytochemistry/ Immunofluorescence - Anti-ENO1 + ENO2 + ENO3 antibody [EPR10863(B)] - BSA and Azide free (ab206120)

ENO1 + ENO2 + ENO3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-ENO1 + ENO2 + ENO3 antibody

Clone EPR10863(B) (ab206120) has been successfully conjugated by Abcam. This image was generated using Anti-ENO1 + ENO2 + ENO3 antibody [EPR10863(B)] (Alexa Fluor® 488). Please refer to ab205871 for protocol details.
ab205871 staining ENO1 + ENO2 + ENO3 in HeLa cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab205871 at a 1/250 dilution (shown in green) and ab195889, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 594), at a 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

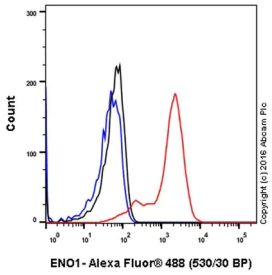
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunocytochemistry/ Immunofluorescence - Anti-ENO1 + ENO2 + ENO3 antibody [EPR10863(B)] - BSA and Azide free (ab206120)

ENO1 + ENO2 + ENO3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-ENO1 + ENO2 + ENO3 antibody

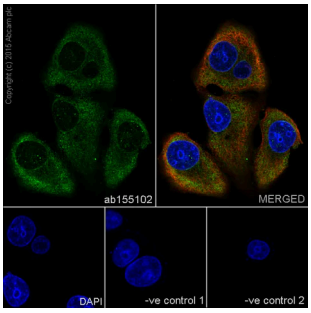
Immunocytochemistry/Immunofluorescence analysis of MCF7 cells labelling ENO1 + ENO2 + ENO3 with unpurified ab155102 at a dilution of 1/100.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab155102).



Flow Cytometry (Intracellular) - Anti-ENO1 + ENO2 + ENO3 antibody [EPR10863(B)] - BSA and Azide free (ab206120)

ENO1 + ENO2 + ENO3 Flow Cytometry (Intracellular) staining using rabbit Anti-ENO1 + ENO2 + ENO3 antibody

Intracellular Flow Cytometry analysis of MCF-7 (human breast carcinoma) cells labeling ENO1 with purified ab155102 at 1/20 dilution (10ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab155102).



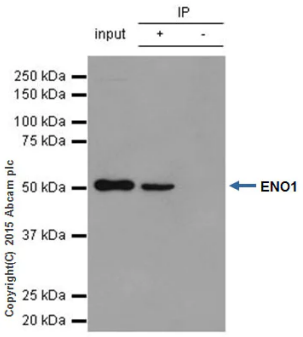
Immunocytochemistry/ Immunofluorescence - Anti-ENO1 + ENO2 + ENO3 antibody [EPR10863(B)] - BSA and Azide free (ab206120)

ENO1 + ENO2 + ENO3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-ENO1 + ENO2 + ENO3 antibody

Immunocytochemistry/Immunofluorescence analysis of MCF-7 cells labelling ENO1 + ENO2 + ENO3 with purified ab155102 at 1/60. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. ab7291, a mouse anti-tubulin (1/1000) and ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000) were also used.
Control 1: primary antibody (1/60) and secondary antibody, ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000).

Control 2: ab7291 (1/1000) and secondary antibody, ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab155102).



Immunoprecipitation - Anti-ENO1 + ENO2 + ENO3 antibody [EPR10863(B)] - BSA and Azide free (ab206120)

ab155102 (purified) at 1/20 immunoprecipitating ENO1 in HeLa whole cell lysate.
Lane 1 (input): HeLa whole cell lysate (10µg)

Lane 2 (+): ab155102 + HeLa whole cell lysate.

Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab155102 in HeLa whole cell lysate.

For western blotting, a HRP-conjugated anti-rabbit IgG, specific to the non-reduced form of IgG was used as the secondary antibody (1/1500).

Blocking buffer and concentration: 5% NFDM/TBST.

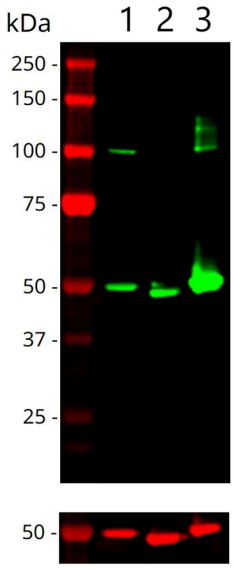
Diluting buffer and concentration: 5% NFDM /TBST.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab155102).

All lanes:
Immunoprecipitation - Anti-ENO1 + ENO2 + ENO3 antibody [EPR10863(B)] (ab155102)

Predicted band size: 47 kDa

Observed band size: 47 kDa



Western blot - Anti-ENO1 + ENO2 + ENO3 antibody [EPR10863(B)] - BSA and Azide free (ab206120)

ENO1 + ENO2 + ENO3 Western blot staining using rabbit Anti-ENO1 + ENO2 + ENO3 antibody

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab155102).

Mouse anti-6x HisTag was used as a loading control.
All lanes:
Western blot - Anti-ENO1 + ENO2 + ENO3 antibody [EPR10863(B)] (ab155102) at 1/5000 dilution

Lane 1:
Human ENO3 protein (His Tag) at 0.2 µg

Lane 2:
Human ENO2 Protein (His Tag) at 0.2 µg

Lane 3:
Human ENO1 Protein (His Tag) at 0.2 µg

Predicted band size: 47 kDa

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