abcam

ab240237

Anti-PFKM + PFKL antibody [EPR11904] - 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	EPR11904
Purification technique	Affinity purification Protein A
Concentration	0.995 - 1.035 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	Rat, Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

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

Expected

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

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

WB

Tested

Species	Human, Rat, Mouse, Recombinant full length protein - Human
Dilution info	-
Notes	-

Target data

See full target information PFKM

Function	Catalyzes the phosphorylation of D-fructose 6-phosphate to fructose 1,6-bisphosphate by ATP, the first committing step of glycolysis.

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

ab240237 is the carrier-free version of ab181064.

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	PFKM and PFKL are key isoforms of phosphofructokinase an enzyme that catalyzes the phosphorylation of fructose-6-phosphate to fructose-16-bisphosphate in glycolysis. PFKM also known as phosphofructokinase muscle type has a mass of approximately 85 kDa while PFKL or phosphofructokinase liver type is about 83 kDa. These isoforms express mainly in muscle and liver tissues respectively where they play a significant role in energy metabolism.
Biological function summary	PFKM and PFKL are important components of the glycolysis metabolic pathway. These enzymes form a multi-subunit complex called phosphofructokinase that regulates the rate-limiting step of glycolysis ensuring efficient energy production. This complex adapts to changes in cellular energy demands and environmental conditions therefore controlling glucose breakdown.
Pathways	PFKM and PFKL are integral to glycolysis and gluconeogenesis processes essential for energy production and glucose homeostasis. PFKM closely interacts with hexokinase and pyruvate kinase in the glycolytic pathway ensuring continuation of the energy yield process. PFKL participates similarly with both aiding in maintaining the proper functioning of cellular metabolic activities.
Associated diseases and disorders	Abnormalities in PFKM and PFKL activity associate with glycogen storage disease type VII (Tarui's disease) and non-insulin-dependent diabetes mellitus. PFKM mutations lead to impaired glycolysis in muscle cells causing exercise intolerance and muscle cramps while PFKL variants can alter glucose metabolism contributing to diabetes development. These proteins' roles in diseases provide insight into potential therapeutic targets for metabolic disorders.

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.

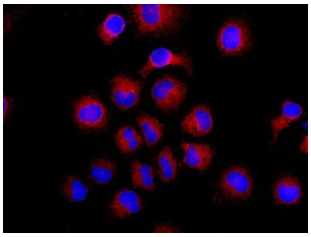
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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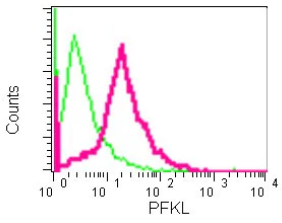
3 product images



Immunocytochemistry/ Immunofluorescence - Anti-PFKM + PFKL antibody [EPR11904] - BSA and Azide free (ab240237)

PFKM + PFKL Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-PFKM + PFKL antibody

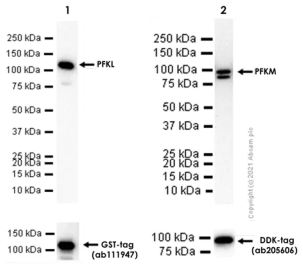
Immunofluorescent analysis of HeLa cells (-20°C Acetone-fixed) staining PFKL with ab181064 at 1/100 dilution, followed by Goat anti rabbit IgG (Alexa Fluor® 555) secondary antibody at 1/200 dilution. Counter stained with Dapi.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab181064).



Flow Cytometry (Intracellular) - Anti-PFKM + PFKL antibody [EPR11904] - BSA and Azide free (ab240237)

PFKM + PFKL Flow Cytometry (Intracellular) staining using rabbit Anti-PFKM + PFKL antibody

Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed C6 cells labeling PFKL with ab181064 at 1/10 dilution (red) compared to a Rabbit monoclonal IgG isotype control (green), followed by Goat anti rabbit IgG (FITC) secondary antibody at 1/150 dilution.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab181064).



Western blot - Anti-PFKM + PFKL antibody [EPR11904] - BSA and Azide free (ab240237)

PFKM + PFKL Western blot staining using rabbit Anti-PFKM + PFKL antibody

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

All lanes:
Western blot - Anti-PFKM + PFKL antibody [EPR11904] (ab181064) at 1/1000 dilution

Lane 1:
GST tagged Recombinant Human PFKL protein (Full length, 116 KDa)

Lane 2:
DDK tagged Recombinant Human PFKM protein (Full length, 85 KDa)

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Exposure time: 180s

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