abcam

ab76063

Anti-MEF2A antibody [EP1706Y]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EP1706Y
Purification technique	Affinity purification Protein A
Concentration	0.45 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Mouse
Dilution info	1/1000 - 1/10000
Notes	-

Species	Rat

Dilution info	1/1000 - 1/10000
Notes	-

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/20 - 1/50
Notes	ab172730 - 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	-

Target data

See full target information MEF2A

Function	Transcriptional activator which binds specifically to the MEF2 element, 5'-YTA[AT](4)TAR-3', found in numerous muscle-specific genes. Also involved in the activation of numerous growth factor- and stress-induced genes. Mediates cellular functions not only in skeletal and cardiac muscle development, but also in neuronal differentiation and survival. Plays diverse roles in the control of cell growth, survival and apoptosis via p38 MAPK signaling in muscle-specific and/or growth factor-related transcription. In cerebellar granule neurons, phosphorylated and sumoylated MEF2A represses transcription of NUR77 promoting synaptic differentiation. Associates with chromatin to the ZNF16 promoter.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

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.

Supplementary info

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

Activity summary	MEF2A or Myocyte Enhancer Factor 2A is a transcription factor involved in regulating gene expression. MEF2A is approximately 55 kDa in size and is expressed in a variety of tissues including muscle brain and heart. It is part of the MEF2 family of transcription factors which all share a similar MADS-box/MEF2 domain structure. MEF2A binds to DNA and influences the transcription of genes involved in muscle differentiation and development.
Biological function summary	MEF2A participates in transcriptional regulation as part of a larger complex that includes other regulatory proteins. This transcription factor plays an essential role in the development and function of muscles. It activates the transcription of genes necessary for muscle fiber formation and adaptation. MEF2A also influences the expression of genes related to neuronal survival and plasticity impacting cognitive function and memory in the brain.
Pathways	MEF2A is involved in both the MAPK/ERK and PI3K/Akt pathways which are significant for cellular growth survival and differentiation. MEF2A interacts with proteins like MAPK and PI3K impacting these signaling pathways that regulate cell proliferation and apoptosis. This interaction highlights its role in cellular response to external stimuli and stress signals positioning MEF2A as an important factor in cell fate decisions.
Associated diseases and disorders	Mutations or dysregulation of MEF2A are connected to cardiovascular diseases particularly coronary artery disease. MEF2A mutations can disrupt normal transcriptional regulation leading to impaired cardiovascular function. Additionally alterations in MEF2A function are linked to neurodegenerative disorders such as Alzheimer's disease where it may interact with proteins including Tau and amyloid precursor protein influencing neuronal health and survival.

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

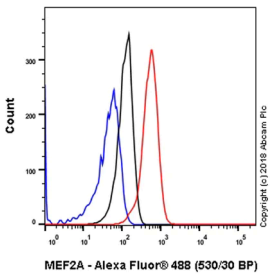
We do not recommend this combination. It is not covered by our product promise.

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.

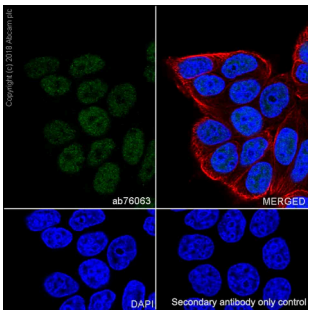
6 product images



Flow Cytometry (Intracellular) - Anti-MEF2A antibody [EP1706Y] (ab76063)

MEF2A Flow Cytometry (Intracellular) staining using rabbit Anti-MEF2A antibody

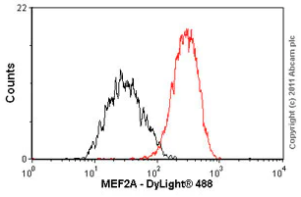
Intracellular Flow Cytometry analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling MEF2A with purified ab76063 at 1/40 dilution (10 µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunocytochemistry/ Immunofluorescence - Anti-MEF2A antibody [EP1706Y] (ab76063)

MEF2A Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-MEF2A antibody

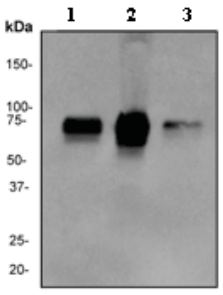
Immunocytochemistry/ Immunofluorescence analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling MEF2A with Purified ab76063 at 1:100 dilution (4.3 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor®594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor®488, ab150077) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry (Intracellular) - Anti-MEF2A antibody [EP1706Y] (ab76063)

MEF2A Flow Cytometry (Intracellular) staining using rabbit Anti-MEF2A antibody

Overlay histogram showing MCF-7 cells stained with unpurified ab76063 (red line). The cells were fixed with methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab76063, 1/50 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit monoclonal IgG (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in MCF-7 cells fixed with 4% paraformaldehyde (10 min)/permeabilized in 0.1% PBS-Tween used under the same conditions.



Western blot - Anti-MEF2A antibody [EP1706Y] (ab76063)

MEF2A Western blot staining using rabbit Anti-MEF2A antibody

The observed band size may be different from the predicted molecular weight as the protein is sumoylated.
All lanes:
Western blot - Anti-MEF2A antibody [EP1706Y] (ab76063) at 1/10000 dilution

Lane 1:
Fetal brain lysate at 10 µg

Lane 2:
Human heart lysate at 10 µg

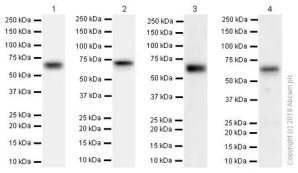
Lane 3:
HeLa lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 55 kDa

Observed band size: 70 kDa



Western blot - Anti-MEF2A antibody [EP1706Y] (ab76063)

Blocking and diluting buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-MEF2A antibody [EP1706Y] (ab76063) at 0.2 µg/mL

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates at 15 µg

Lane 2:
3T3-L1 (Mouse embryonic fibroblast) whole cell lysates at 15 µg

Lane 3:
Mouse brain lysates at 15 µg

Lane 4:
Rat brain lysates at 15 µg

Secondary

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

Predicted band size: 55 kDa

Observed band size: 66 kDa

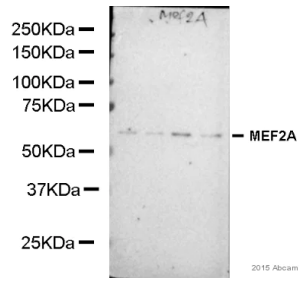


Image is courtesy of an anonymous customer review.

Western blot - Anti-MEF2A antibody [EP1706Y] (ab76063)

Lanes from left to right: cropped MW marker ladder, 1, 2, 3, 4.
Blocking was performed with 5% milk for 1 hour at room temperature.

All lanes:
Western blot - Anti-MEF2A antibody [EP1706Y] (ab76063) at 1/1000 dilution

All lanes:
Murine cardiomyocyte whole cell lysate at 25 µg

Secondary

All lanes:
Goat anti-rabbit polyclonal HRP conjugate.

Performed under reducing conditions.

Predicted band size: 55 kDa

Exposure time: 30s

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