abcam

ab242059

Anti-MEF2B antibody [EPR22193-78]

Recombinant | RabMAb

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	EPR22193-78
Purification technique	Affinity purification Protein A
Concentration	0.547 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

ICC/IF

Not recommended

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/500
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/1000
Notes	Perform heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).

Target data

See full target information MEF2B

Function Transcriptional activator which binds specifically to the MEF2 element, 5'-YTA[AT](4)TAR-3', found in numerous muscle-specific genes. Activates transcription via this element. May be involved in muscle-specific and/or growth factor-related transcription.

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	MEF2B also known as myocyte enhancer factor 2B plays an integral role in regulating gene expression. It is a transcription factor belonging to the MEF2 family which also includes MEF2A MEF2C and MEF2D. MEF2B has a molecular mass of approximately 50 kilodaltons. Researchers have found its expression mainly in lymphoid tissues but it is also present in other tissue types. Through its actions MEF2B influences various cellular processes by binding to DNA and facilitating transcriptional activation.
Biological function summary	MEF2B functions as a regulator of immune system development and differentiation. It acts at the level of transcription to determine the fate of cells by its interactions. MEF2B often partners with various cofactors to form a complex which enhances its ability to control gene expression. It is known to be highly involved in muscle development and cell proliferation underlining its diverse roles in cellular biology.
Pathways	MEF2B plays important roles in two key signaling networks: the MAPK signaling pathway and the calcium signaling pathway. These pathways manage diverse biological processes like cell growth apoptosis and differentiation. Through the MAPK pathway MEF2B interacts with proteins such as ERK leading to various

cellular outcomes. In the calcium signaling pathway MEF2B works alongside calcineurin a phosphatase important for activating MEF2 family members.

Associated diseases and disorders

MEF2B has been linked with specific health conditions particularly in lymphoma and leukemia. Mutations and dysregulation in MEF2B may contribute to the development of these cancers. MEF2B's interaction with other proteins like BCL6 a well-known repressor in lymphomagenesis highlights its importance in these contexts. Understanding MEF2B's role in these diseases may provide insights for potential therapeutic strategies.

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

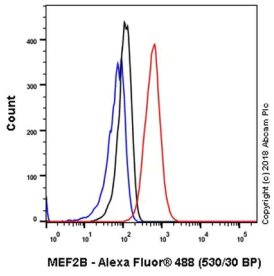
We do not recommend this combination. It is not covered by our product promise.

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.

5 product images

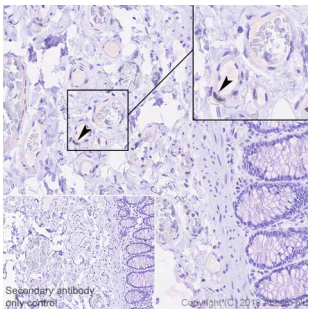


Flow Cytometry (Intracellular) - Anti-MEF2B antibody [EPR22193-78] (ab242059)

MEF2B Flow Cytometry (Intracellular) staining using rabbit Anti-MEF2B antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol permeabilized Daudi (human Burkitt's lymphoma cell line) cell line labeling MEF2B with ab242059 at 1/500 dilution (red) compared with a 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.

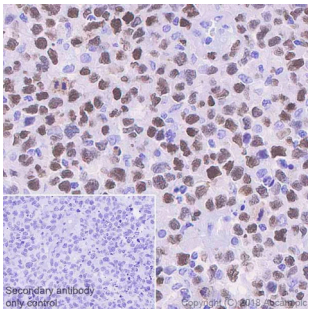


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MEF2B antibody [EPR22193-78] (ab242059)

MEF2B Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-MEF2B antibody

Immunohistochemical analysis of paraffin-embedded human colon tissue labeling MEF2B with ab242059 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Nuclear staining on a subset of smooth muscle cells (arrowhead) of human colon (PMID: 26089142; PMID: 8668199). Counterstained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

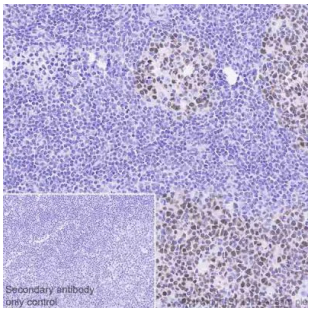


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MEF2B antibody [EPR22193-78] (ab242059)

MEF2B Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-MEF2B antibody

Immunohistochemical analysis of paraffin-embedded human diffuse large B-cell lymphoma tissue labeling MEF2B with ab242059 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Nuclear staining on human diffuse large B-cell lymphoma cells (PMID: 26089142). Counterstained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

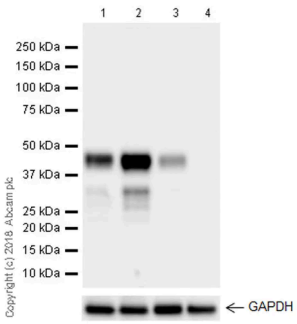


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MEF2B antibody [EPR22193-78] (ab242059)

MEF2B Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-MEF2B antibody

Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling MEF2B with ab242059 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Nuclear staining on germinal center B cells of human tonsil (PMID: 23974956; PMID: 26089142). Counterstained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-MEF2B antibody [EPR22193-78] (ab242059)

The 40-kDa target band is consistent with what has been described in the literature (PMID: 23974956). Minor bands below 40kDa are undetermined proteins, likely to be truncated MEF2B (PMID: 23974956).
Negative control: Hela (PMID: 8798771).

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

All lanes:
Western blot - Anti-MEF2B antibody [EPR22193-78] (ab242059) at 1/1000 dilution

Lane 1:
Daudi (human Burkitt's lymphoma cell line), whole cell lysate at 10 µg

Lane 2:
Ramos (human Burkitt's lymphoma cell line), whole cell lysate at 10 µg

Lane 3:
Raji (human Burkitt's lymphoma cell line), whole cell lysate at 10 µg

Lane 4:
HeLa (human epithelial cell line from cervix adenocarcinoma), whole cell lysate at 10 µg

Secondary

All lanes:
Western blot - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/1000 dilution

Predicted band size: 39 kDa

Exposure time: 3s

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