abcam

Product datasheet

Anti-MEF2C antibody [OTI4B10] ab118406

1 References 4 Images

Overview

Product name	Anti-MEF2C antibody [OTI4B10]
Description	Mouse monoclonal [OTI4B10] to MEF2C
Host species	Mouse
Tested applications	**Suitable for:** WB, ICC/IF, Flow Cyt (Intra)
Species reactivity	**Reacts with:** Human, Recombinant fragment
Immunogen	Recombinant full length protein corresponding to Human MEF2C.
Positive control	WB:HEK293T cell lysate transfected with pCMV6-ENTRY MEF2C cDNA; ICC/IF: COS7 cells transiently transfected by pCMV6-ENTRY MEF2C; Flow Cyt (Intra): HeLa and Jurkat cells.
General notes	The clone number has been updated from 4B10 to OTI4B10, both clone numbers name the same clone. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: 50% Glycerol, 1% BSA, PBS
Purity	Protein G purified
Purification notes	Purified from cell culture supernatant by affinity chromatography
Clonality	Monoclonal
Clone number	OTI4B10
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab118406 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
WB		1/500. Predicted molecular weight: 51 kDa.
ICC/IF		1/100.
Flow Cyt (Intra)		1/100. **ab170190** - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target

Function Transcription activator which binds specifically to the MEF2 element present in the regulatory regions of many muscle-specific genes. Controls cardiac morphogenesis and myogenesis, and is also involved in vascular development. Plays an essential role in hippocampal-dependent learning and memory by suppressing the number of excitatory synapses and thus regulating basal and evoked synaptic transmission. Crucial for normal neuronal development, distribution, and electrical activity in the neocortex. Necessary for proper development of megakaryocytes and platelets and for bone marrow B lymphopoiesis. Required for B-cell survival and proliferation in response to BCR stimulation, efficient IgG1 antibody responses to T-cell-dependent antigens and for normal induction of germinal center B cells. May also be involved in neurogenesis and in the development of cortical architecture (By similarity). Isoform 3 and isoform 4, which lack the repressor domain, are more active than isoform 1 and isoform 2.

Tissue specificity Expressed in brain and skeletal muscle.

Involvement in disease Defects in MEF2C are the cause of mental retardation-stereotypic movements-epilepsy and/or cerebral malformations (MRSME) [MIM:613443]. It is a disorder characterized by severe mental retardation, absent speech, hypotonia, poor eye contact and stereotypic movements. Dysmorphic features include high broad forehead with variable small chin, short nose with anteverted nares, large open mouth, upslanted palpebral fissures and prominent eyebrows. Some patients have seizures.

Sequence similarities Belongs to the MEF2 family.
Contains 1 MADS-box domain.
Contains 1 Mef2-type DNA-binding domain.

Developmental stage Expression is highest during the early stages of postnatal development, at later stages levels greatly decrease.

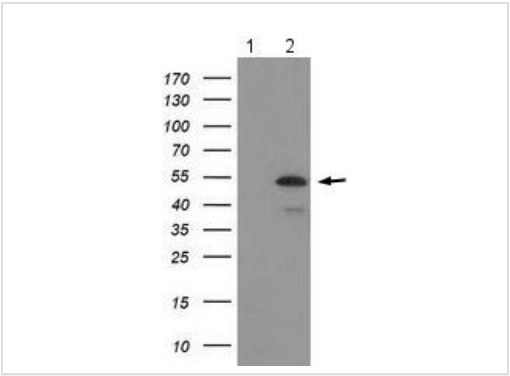
Domain The beta domain, missing in a number of isoforms, is required for enhancement of transcriptional activity.

Post-translational modifications Phosphorylation on Ser-59 enhances DNA binding activity (By similarity). Phosphorylation on Ser-396 is required for Lys-391 sumoylation and inhibits transcriptional activity.
Acetylated by p300 on several sites in diffentiating myocytes. Acetylation on Lys-4 increases DNA binding and transactivation.
Sumoylated on Lys-391 by SUMO2 but not by SUMO1 represses transcriptional activity.

Proteolytically cleaved in cerebellar granule neurons, probably by caspase 7, following neurotoxicity. Preferentially cleaves the CDK5-mediated hyperphosphorylated form which leads to neuron apoptosis and transcriptional inactivation.

Cellular localization Nucleus.

Images



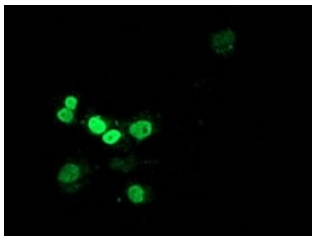
Western blot - Anti-MEF2C antibody [OTI4B10] (ab118406)

All lanes : Anti-MEF2C antibody [OTI4B10] (ab118406) at 1/500 dilution

Lane 1 : HEK293T cell lysate transfected with pCMV6-ENTRY control cDNA
Lane 2 : HEK293T cell lysate transfected with pCMV6-ENTRY MEF2C cDNA

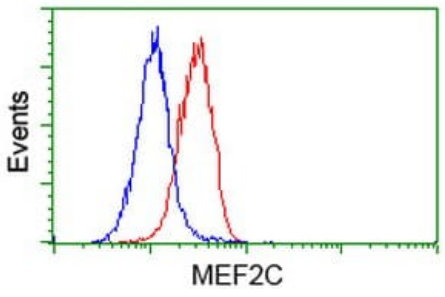
Lysates/proteins at 5 µg per lane.

Predicted band size: 51 kDa



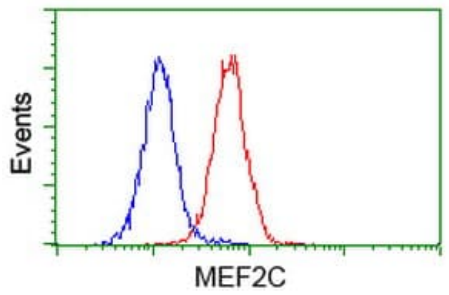
Immunocytochemistry/ Immunofluorescence - Anti-MEF2C antibody [OTI4B10] (ab118406)

ab118406 at 1/100 dilution staining MEF2C in COS7 cells transiently transfected by pCMV6-ENTRY MEF2C by Immunofluorescence.



Flow Cytometry (Intracellular) - Anti-MEF2C antibody [OTI4B10] (ab118406)

ab118406 at 1/100 dilution staining MEF2C in HeLa cells by Flow cytometry (Intracellular) (Red) compared to a nonspecific negative control antibody (Blue).



Flow Cytometry (Intracellular) - Anti-MEF2C antibody [OTI4B10] (ab118406)

ab118406 at 1/100 dilution staining MEF2C in Jurkat cells by Flow cytometry (Intracellular) (Red) compared to a nonspecific negative control antibody (Blue).

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