10320 Camino Santa Fe, Suite G
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MEF2A Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1883a

Specification

MEF2A Antibody - Product Information

Application	**WB, E**
Primary Accession	Q02078
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**54.8kDa KDa**

Description
The protein encoded by this gene is a DNA-binding transcription factor that activates many muscle-specific, growth factor-induced, and stress-induced genes. The encoded protein can act as a homodimer or as a heterodimer and is involved in several cellular processes, including muscle development, neuronal differentiation, cell growth control, and apoptosis. Defects in this gene could be a cause of autosomal dominant coronary artery disease 1 with myocardial infarction (ADCAD1). Several transcript variants encoding different isoforms have been found for this gene.

Immunogen
Purified recombinant fragment of human MEF2A (AA: 391-497) expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

MEF2A Antibody - Additional Information

Gene ID 4205

Other Names
Myocyte-specific enhancer factor 2A, Serum response factor-like protein 1, MEF2A, MEF2

Dilution
WB~~1/500 - 1/2000
E~~1/10000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
MEF2A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

MEF2A Antibody - Protein Information

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Name MEF2A

Synonyms MEF2

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.

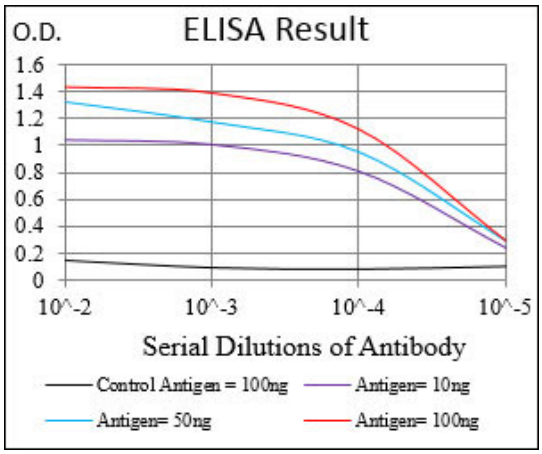
Cellular Location
Nucleus {ECO:0000255|PROSITE-ProRule:PRU00251, ECO:0000269|PubMed:12691662, ECO:0000269|PubMed:16563226}

Tissue Location
Isoform MEF2 and isoform MEFA are expressed only in skeletal and cardiac muscle and in the brain. Isoform RSRFC4 and isoform RSRFC9 are expressed in all tissues examined

MEF2A Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture



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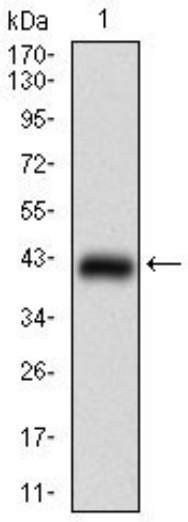

Figure 1: Western blot analysis using MEF2A mAb against human MEF2A (AA: 391-497) recombinant protein. (Expected MW is 38 kDa)

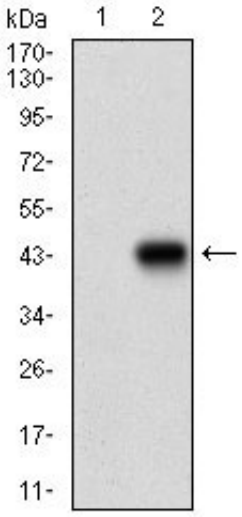

Figure 2: Western blot analysis using MEF2A mAb against HEK293 (1) and MEF2A (AA: 391-497)-hIgGFc transfected HEK293 (2) cell lysate.

MEF2A Antibody - Background

This gene encodes a component of a signaling pathway that regulates cell growth in response to nutrient and insulin levels. The encoded protein forms a stoichiometric complex with the mTOR kinase, and also associates with eukaryotic initiation factor 4E-binding protein-1 and ribosomal protein S6 kinase. The protein positively regulates the downstream effector ribosomal protein S6 kinase, and negatively regulates the mTOR kinase. Multiple transcript variants encoding different isoforms have been found for this gene. ;

MEF2A Antibody - References

1. Cell Biochem Funct. 2012 Mar;30(2):108-13. 2. Circ Cardiovasc Genet. 2009 Apr;2(2):165-72.