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MEF2A Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1883a

Product Information

Application	WB, E
Primary Accession	Q02078
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	2F9H2
Isotype	IgG1
Calculated MW	54811
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

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.

Protein Information

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

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. ;

References

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

Images

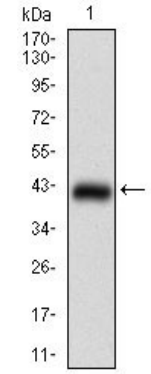


Figure 1: Western blot analysis using MEF2A mAb against human MEF2A (AA: 391-497) recombinant protein. (Expected MW is 38 kDa)

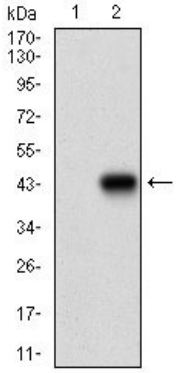


Figure 2: Western blot analysis using MEF2A mAb against HEK293 (1) and MEF2A (AA: 391-497)-hIgGFc transfected HEK293 (2) cell lysate.

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