

Product Name: MEF-2C (phospho Ser396) Rabbit Polyclonal Antibody
Catalog #: APRab04997

Summary

Production Name	MEF-2C (phospho Ser396) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ELISA
Reactivity	Human,Mouse

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	MEF2C
Alternative Names	MEF2C; Myocyte-specific enhancer factor 2C
Gene ID	4208.0
SwissProt ID	Q06413.The antiserum was produced against synthesized peptide derived from human MEF2C around the phosphorylation site of Ser396. AA range:362-411

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:10000..
Molecular Weight	51kD

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Background

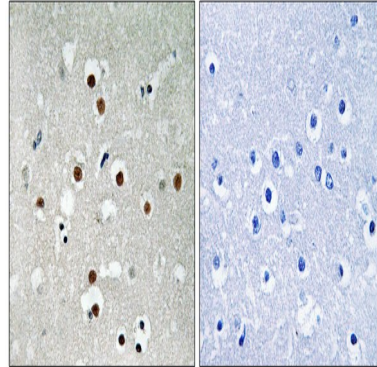
This locus encodes a member of the MADS box transcription enhancer factor 2 (MEF2) family of proteins, which play a role in myogenesis. The encoded protein, MEF2 polypeptide C, has both trans-activating and DNA binding activities. This protein may play a role in maintaining the differentiated state of muscle cells. Mutations and deletions at this locus have been associated with severe mental retardation, stereotypic movements, epilepsy, and cerebral malformation. Alternatively spliced transcript variants have been described. [provided by RefSeq, Jul 2010], alternative products: Additional isoforms seem to exist, 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, 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. 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, PTM: Acetylated by p300 on several sites in differentiating myocytes. Acetylation on Lys-4 increases DNA binding and transactivation, PTM: Phosphorylation on Ser-59 enhances DNA binding activity (By similarity). Phosphorylation on Ser-396 is required for Lys-391 sumoylation and inhibits transcriptional activity, PTM: 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, PTM: Sumoylated on Lys-391 by SUMO2 but not by SUMO1 represses transcriptional activity, similarity: Belongs to the MEF2 family, similarity: Contains 1 MADS-box domain, similarity: Contains 1 Mef2-type DNA-binding domain, subunit: Forms a complex with class II HDACs in undifferentiating cells. On myogenic differentiation, HDACs are released into the cytoplasm allowing MEF2s to interact with other proteins for activation. Interacts with EP300 in differentiating cells; the interaction acetylates MEF2C leading to increased DNA binding and activation. Interacts with HDAC7 and CARM1 (By similarity). Interacts with HDAC4, HDAC7 AND HDAC9; the interaction WITH HDACs represses transcriptional activity, tissue specificity: Expressed in brain and skeletal muscle,

Research Area

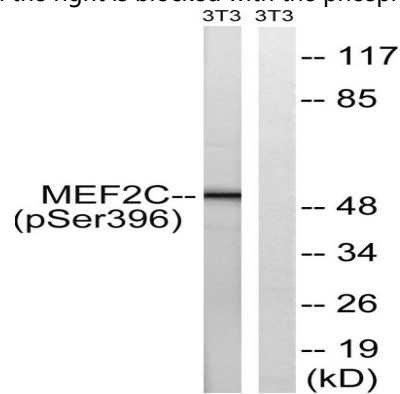
AMPK; Protein_Acetylation; MAPK_ERK_Growth; MAPK_G_Protein

Image Data

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Immunohistochemistry analysis of paraffin-embedded human brain, using MEF2C (Phospho-Ser396) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from NIH/3T3 cells treated with starved 24h, using MEF2C (Phospho-Ser396) Antibody. The lane on the right is blocked with the phospho peptide.

Note

For research use only.