
Product Name: MEF-2D (phospho Ser444) Rabbit Polyclonal Antibody**Catalog #: APRab04998**

For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Phosphorylated
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:5000-1:20000
Molecular Weight	55kDa

Antigen Information

Gene Name	MEF2D
Alternative Names	MEF2D; Myocyte-specific enhancer factor 2D
Gene ID	4209.0
SwissProt ID	Q14814
Immunogen	The antiserum was produced against synthesized peptide derived from human MEF2D around the phosphorylation site of Ser444. AA range:410-459

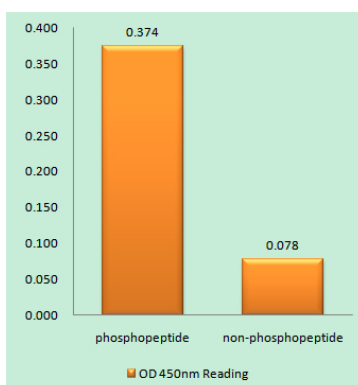
Background

This gene is a member of the myocyte-specific enhancer factor 2 (MEF2) family of transcription factors. Members of this family

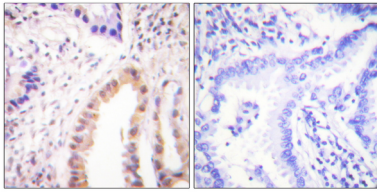
are involved in control of muscle and neuronal cell differentiation and development, and are regulated by class II histone deacetylases. Fusions of the encoded protein with Deleted in Azoospermia-Associated Protein 1 (DAZAP1) due to a translocation have been found in an acute lymphoblastic leukemia cell line, suggesting a role in leukemogenesis. The encoded protein may also be involved in Parkinson disease and myotonic dystrophy. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2012],developmental stage:Present in myotubes and also in undifferentiated myoblasts.,domain:The beta domain, missing in a number of isoforms, is required for enhancement of transcriptional activity.,function:Transcriptional activator which binds specifically to the MEF2 element, 5'-YTA[AT](4)TAR-3', found in numerous muscle-specific, 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. Plays a critical role in the regulation of neuronal apoptosis.,PTM:Acetylated on Lys-439 by CREBBP. Deacetylated by SIRT1.,PTM:Phosphorylated on Ser-444 by CDK5 is required for Lys-439 sumoylation and inhibits transcriptional activity. In neurons, enhanced CDK5 activity induced by neurotoxins promotes caspase 3-mediated cleavage leading to neuron apoptosis. Phosphorylation on Ser-180 can be enhanced by EGF.,PTM:Proteolytically cleaved in cerebellar granule neurons on several sites by caspase 7 following neurotoxicity. Preferentially cleaves the CDK5-mediated hyperphosphorylated form which leads to neuron apoptosis and transcriptional inactivation.,PTM:Sumoylated on Lys-439 by SUMO2 but not SUMO1; which inhibits transcriptional activity and myogenic activity. Desumoylated by SENP3.,similarity:Belongs to the MEF2 family.,similarity:Contains 1 MADS-box domain.,similarity:Contains 1 Mef2-type DNA-binding domain.,subcellular location:Translocated by HDAC4 to nuclear dots.,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 HDAC4 (in undifferentiating cells); the interaction translocates MEF2D to nuclear dots. Forms a heterodimer with MEF2A.,

Research Area

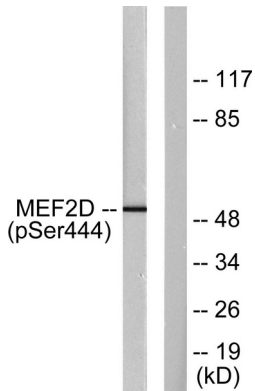
Image Data



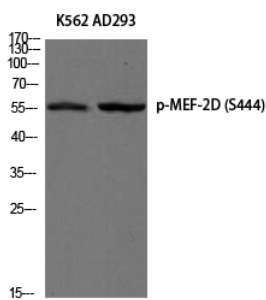
Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right) , using MEF2D (Phospho-Ser444) Antibody



Immunohistochemistry analysis of paraffin-embedded human lung carcinoma, using MEF2D (Phospho-Ser444) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from HepG2 cells treated with forskolin 40nM 30', using MEF2D (Phospho-Ser444) Antibody. The lane on the right is blocked with the phospho peptide.



Western blot analysis of K562 AD293 using Phospho-MEF-2D (S444) antibody. Antibody was diluted at 1:500