MEF-2D (Phospho Ser444) Rabbit pAb

CatalogNo: YP0165 Orthogonal Validated

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- WB,IHC,IF,ELISA

MW
- 55kD (Observed)

Isotype
- IgG

Storage

Storage*	-15°C to -25°C/1 year (Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-1:2000
IHC 1:100-1:300
ELISA 1:10000
IF 1:50-200

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	The antiserum was produced against synthesized peptide derived from human MEF2D around the phosphorylation site of Ser444. AA range:410-459

Specificity	Phospho-MEF-2D (S444) Polyclonal Antibody detects endogenous levels of MEF-2D protein only when phosphorylated at S444.The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):PVsPS

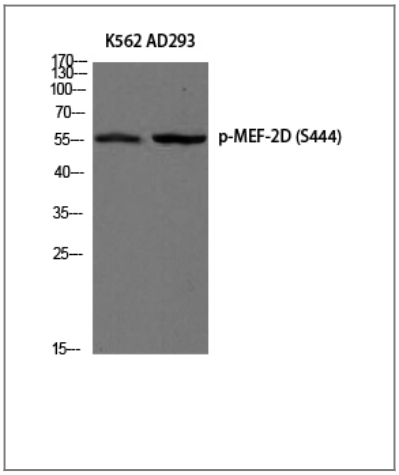
Target Information

Gene name	MEF2D
Protein Name	Myocyte-specific enhancer factor 2D

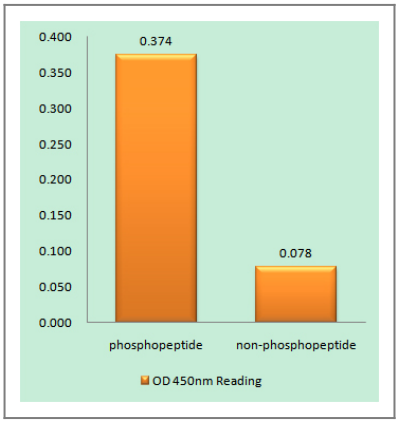
Organism	Gene ID	UniProt ID
Human	4209;	Q14814;
Mouse		Q63943;
Rat	81518;	O89038;

Cellular Localization	Nucleus . Translocated by HDAC4 to nuclear dots.
Tissue specificity	Blood ,Brain ,Epithelium ,Eye ,Myocardium ,Testis ,
Function	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. Phsophorylation 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. ,

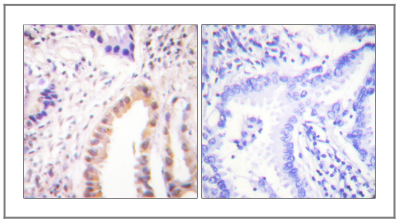
Validation Data



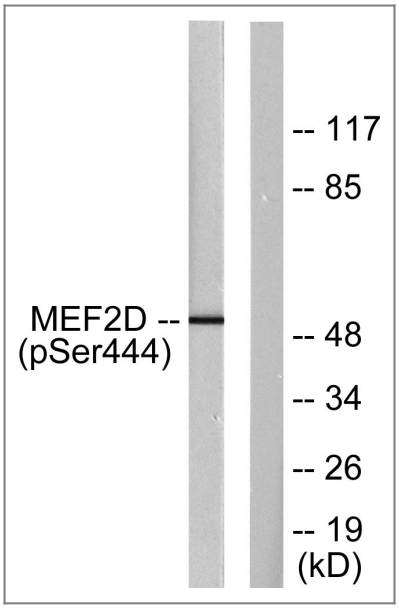
Western blot analysis of K562 AD293 using Phospho-MEF-2D (S444) antibody. Antibody was diluted at 1:500



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.

Contact information

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Please scan the QR code to access additional product information:
MEF-2D (Phospho Ser444) Rabbit pAb

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