



# MEF-2A/C rabbit pAb

|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Catalog No</b>                  | YP-Ab-02270                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Isotype</b>                     | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Reactivity</b>                  | Human;Mouse;Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Applications</b>                | WB; ELISA                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Gene Name</b>                   | MEF2A MEF2                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Immunogen</b>                   | Synthesized peptide derived from human MEF-2A/C                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Specificity</b>                 | This antibody detects endogenous levels of Human,Mouse,Rat MEF-2A/C                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Formulation</b>                 | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Source</b>                      | Polyclonal, Rabbit,IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Purification</b>                | The antibody was affinity-purified from rabbit serum by affinity-chromatography using specific immunogen.                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Dilution</b>                    | WB 1:1000-2000 ELISA 1:5000-20000                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Concentration</b>               | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Purity</b>                      | ≥90%                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Storage Stability</b>           | -20°C/1 year                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Synonyms</b>                    | MEF-2;MEF2A MEF2;MEF-2A/C;Myocyte-specific enhancer factor 2A (Serum response factor-like protein 1)                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Observed Band</b>               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Calculated Molecular Weight</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Cell Pathway</b>                | Nucleus .                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Tissue Specificity</b>          | 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.                                                                                                                                                                                                                                                                                                 |
| <b>Function</b>                    | transcription, regulation of transcription, DNA-dependent, apoptosis, muscle organ development, cell death,programmed cell death, death, regulation of transcription, regulation of RNA metabolic process,                                                                                                                                                                                                                                                                 |
| <b>Background</b>                  | disease:Defects in MEF2A might be a cause of autosomal dominant coronary artery disease 1 with myocardial infarction (ADCAD1) [MIM:608320]., 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.,PTM:Acetylation on Lys-403 activates transcriptional activity. Acetylated by p300 on several sites in differentiating myocytes. Acetylation on Lys-4 increases DNA binding and transactivation (By similarity). Hyperacetylation by p300 leads to enhanced cardiac myocyte growth and heart failure.,PTM:Constitutive phosphorylation on Ser-408 promotes Lys-403 sumoylation thus preventing acetylation at this site. Dephosphorylation on Ser-408 by PPP3CA upon neuron depolarization promotes a switch from sumoylation to acetylation on residue Lys-403 leading to inhibition of dendrite claw differentiation. Phosphorylation on Thr-312 and Thr-319 are the main sites involved in p38 MAPK signaling and activate transcription. Phosphorylated on these sites by MAPK14/p38alpha and MAPK11/p38beta, but not by MAPK13/p38delta nor by MAPK12/p38gamma. Phosphorylation on Ser-408 by CDK5 induced by neurotoxicity inhibits MEF2A transcriptional activation leading to apoptosis of cortical neurons. Phosphorylation on Thr-312, Thr-319 and Ser-355 can be induced by EGF.,PTM:Proteolytically cleaved in cerebellar granule neurons on several sites by caspase 3 and caspase 7 following neurotoxicity. Preferentially cleaves the CDK5-mediated hyperphosphorylated form which leads to neuron apoptosis and transcriptional inactivation.,PTM:Sumoylation on Lys-403 is enhanced by PIAS1 and represses transcriptional activity. Phosphorylation on Ser-408 is required for sumoylation. Has no effect on nuclear location nor on DNA binding. Sumoylated by SUMO1 and, to a lesser extent by SUMO2 and SUMO3. PIASx facilitates sumoylation in postsynaptic dendrites in the cerebellar cortex and promotes their morphogenesis., similarity:Belongs to the MEF2 family.,similarity:Contains 1 MADS-box domain., similarity:Contains 1 Mef2-type DNA-binding domain.,subunit:Binds DNA as a homo- or heterodimer. Dimerizes with MEF2D. Interacts with HDAC7 (By similarity). Interacts with PIAS1; the interaction enhances sumoylation. Interacts with HDAC4, HDAC9 and SLC2A4RG. Interacts (via the N-terminal) with MAPK7; the interaction results in the phosphorylation and transcriptional activity of MEF2A.,tissue specificity:Isoform MEF2 and isoform MEFA are expressed only in skeletal and cardiac muscle and in the brain while isoform RSRFC4 and isoform RSRFC9 are expressed in all tissues examined.,

**matters needing attention**

Avoid repeated freezing and thawing!

**Usage suggestions**

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

## Products Images