

Rabbit Anti-phospho-MEF2c (Ser396)/AP Conjugated antibody

SL5480R-AP

Product Name	Anti-phospho-MEF2C(Ser396)/AP
Chinese Name	碱性磷酸酶（AP）标记的磷酸化肌细胞增强因子 2C 抗体 MEF2C (phospho S396); p-MEF2C (phospho S396); MEF2C(phospho S396); MADS box transcription enhancer factor 2 polypeptide C (myocyte enhancer factor 2C); Myocyte enhancer factor 2C; Myocyte specific enhancer factor 2C; Similar to MADS box transcription enhancer factor 2 polypeptide C; MEF2C_HUMAN.
Alias	
Product Type	Phosphorylated anti
Research Area	Cardiovascular Cell biology immunology Chromatin and nuclear signals Neurobiology Signal transduction Stem cells transcriptional regulatory factor
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Mouse,Rat(predicted:Human,Dog,Pig,Rabbit) WB=1:500-2000
Applications	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	51kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated Synthesised phosphopeptide derived from human MEF2C around the phosphorylation site of Ser396
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Storage	

background:

MEF2C is a transcription activator which binds specifically to the MEF2 element present in the regulatory regions of many muscle-specific genes. This protein controls cardiac morphogenesis and myogenesis, and is also involved in vascular development. It may also be involved in neurogenesis and in the development of cortical architecture.

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. Plays an essential role in hippocampal-dependent learning and memory by suppressing the number of excitatory synapses and thus regulating basal and evoked synaptic transmission. Crucial for normal neuronal development, distribution, and electrical activity in the neocortex. Necessary for proper development of megakaryocytes and platelets and for bone marrow B lymphopoiesis. Required for B-cell survival and proliferation in response to BCR stimulation, efficient IgG1 antibody responses to T-cell-dependent antigens and for normal induction of germinal center B cells. 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.

Product Detail

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. Interacts with MYOCD (By similarity).

Subcellular Location:

Nucleus.

Tissue Specificity:

Expressed in brain and skeletal muscle.

Post-translational modifications:

Phosphorylation on Ser-59 enhances DNA binding activity (By similarity). Phosphorylation on Ser-396 is required for Lys-391 sumoylation and inhibits transcriptional activity.

Acetylated by p300 on several sites in differentiating myocytes. Acetylation on

Lys-4 increases DNA binding and transactivation.

Sumoylated on Lys-391 with SUMO2 but not by SUMO1 represses transcriptional activity.

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.

DISEASE:

Mental retardation, autosomal dominant 20 (MRD20) [MIM:613443]: A disorder characterized by severe mental retardation, absent speech, hypotonia, poor eye contact and stereotypic movements. Dysmorphic features include high broad forehead with variable small chin, short nose with anteverted nares, large open mouth, upslanted palpebral fissures and prominent eyebrows. Some patients have seizures. Note=The disease is caused by mutations affecting the gene represented in this entry.

Similarity:

Belongs to the MEF2 family.

Contains 1 MADS-box domain.

Contains 1 Mef2-type DNA-binding domain.

Database links:

[Entrez Gene: 512254](#) Cow

[Entrez Gene: 4208](#) Human

[Entrez Gene: 17260](#) Mouse

[Entrez Gene: 733590](#) Pig

[Entrez Gene: 499497](#) Rat

[Omim: 600662](#) Human

[SwissProt: Q2KIA0](#) Cow

[SwissProt: Q06413](#) Human

[SwissProt: Q8CFN5](#) Mouse

[SwissProt: A4UTP7](#) Pig



[Unigene: 649965](#) Human

[Unigene: 24001](#) Mouse

[Unigene: 451574](#) Mouse

[Unigene: 484098](#) Mouse

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.