



Rabbit Anti-phospho-MEF2C (Thr20) antibody

SL5482R

Product Name:	phospho-MEF2C (Thr20)
Chinese Name:	磷酸化肌细胞增强因子2C抗体
Alias:	MEF2C(phospho Thr20); MEF2C(phospho T20); 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.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,Rabbit,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	51kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human MEF2C around the phosphorylation site of Thr20:QV(p-T)FT
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	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 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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.

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.

SWISS:

Q06413

Gene ID:

4208

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

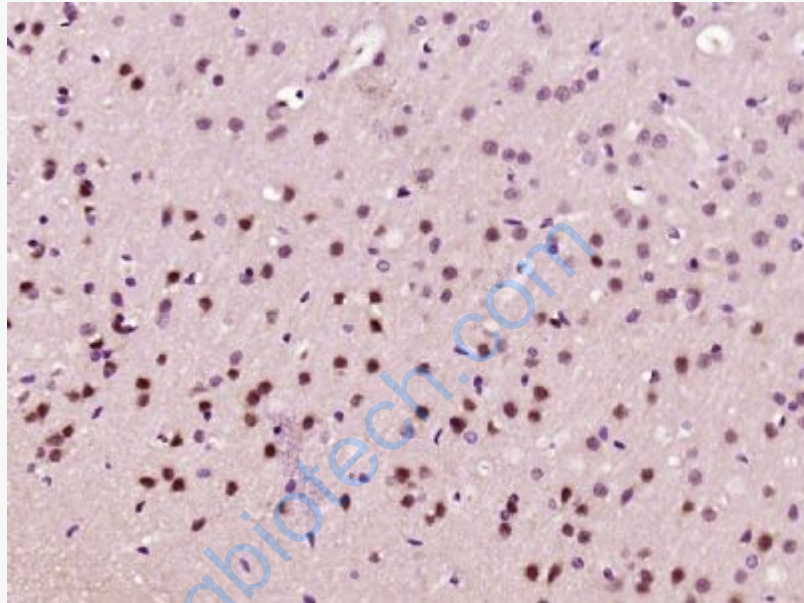
[Unigene: 24001](#) Mouse

[Unigene: 451574](#) Mouse

[Unigene: 484098](#) Mouse

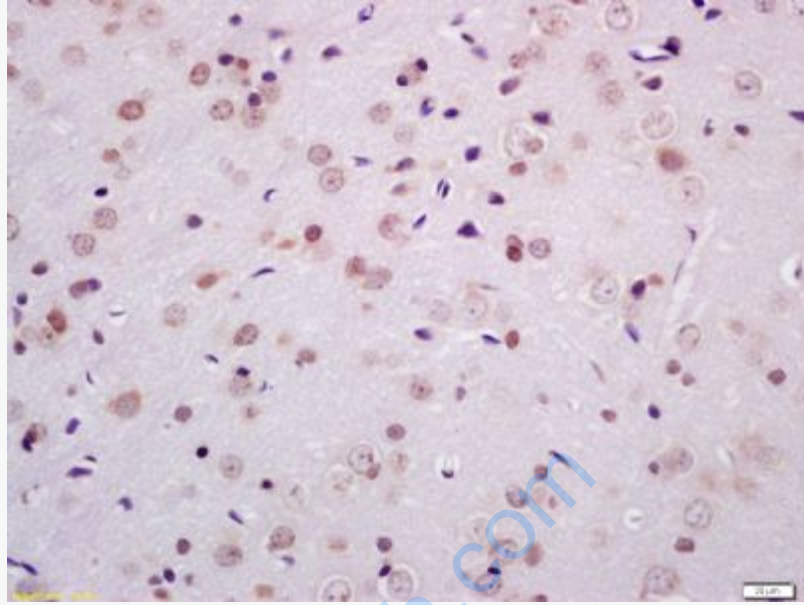
Important Note:

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



Picture:

Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-MEF2C(Thr20)) Polyclonal Antibody, Unconjugated (SL5482R) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-phospho-MEF2C(Thr20) Polyclonal Antibody, Unconjugated(SL5482R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining