Phospho-Mef2c(t300) Antibody Blocking Peptide

PRODUCT OVERVIEW

Product Name	MEF2C (T300), Blocking Peptide
Full Product Name	Phospho-MEF2C(T300) Antibody Blocking peptide
Product Gene Name	MEF2C blocking peptide
Product Synonym Names	Myocyte-specific enhancer factor 2C; MEF2C
Form/Format	The synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml deionized water for a final concentration of 1 mg/ml.
Specificity	The synthetic peptide sequence used to generate the antibody was selected from the region of human Phospho-MEF2C-T300. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	MEF2C (T300) peptide (MBS9225115) is used for blocking the activity of MEF2C (T300) antibody (MBS9201694)
Molecular Weight	50,242 Da
OMIM	600662
Cellular Location	Nucleus.
Tissue Location	Expressed in brain and skeletal muscle.
Related Product Information for MEF2C blocking peptide	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.
Other Notes	Small volumes of MEF2C blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for MEF2C purchase	MBS9225115 is a blocking peptide targeting MEF2C. Also known as Phospho-MEF2C(T300) Antibody Blocking peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MEF2C. It may not necessarily be applicable to this product.

NCBI GI #	2500875
NCBI GeneID	4208
NCBI Accession #	Q06413.1
UniProt Primary Accession #	Q06413
UniProt Secondary Accession #	C9JMZ0; D7F7N5; F8W7V7

UniProt Related Accession #	Q06413
NCBI Official Full Name	Myocyte-specific enhancer factor 2C
NCBI Official Synonym Full Names	myocyte enhancer factor 2C
NCBI Official Symbol	MEF2C
NCBI Official Synonym Symbols	DEL5q14.3; C5DELq14.3
UniProt Protein Name	Myocyte-specific enhancer factor 2C
Protein Family	Myocyte-specific enhancer factor
UniProt Gene Name	MEF2C
UniProt Entry Name	MEF2C_HUMAN
NCBI Protein Information	myocyte-specific enhancer factor 2C
NCBI Summary for MEF2C	This locus encodes a member of the MADS box transcription enhancer factor 2 (MEF2) family of proteins, which play a role in myogenesis. The encoded protein, MEF2 polypeptide C, has both trans-activating and DNA binding activities. This protein may play a role in maintaining the differentiated state of muscle cells. Mutations and deletions at this locus have been associated with severe mental retardation, stereotypic movements, epilepsy, and cerebral malformation. Alternatively spliced transcript variants have been described. [provided by RefSeq, Jul 2010]
UniProt Comments for MEF2C	MEF2C: transcription factor of the MADS family which binds specifically to the MEF2 element present in the regulatory regions of many muscle-specific genes. May be involved in myogenesis, neurogenesis and in the development of cortical architecture. Three splice-variant isoforms have been described. Protein type: DNA-binding; Transcription factor Chromosomal Location of Human Ortholog: 5q14.3 Cellular Component: cytoplasm; intracellular membrane-bound organelle; nuclear speck; nucleoplasm; nucleus; protein complex Molecular Function: AT DNA binding; miRNA binding; protein binding; protein heterodimerization activity; transcription activator binding; transcription factor activity Biological Process: B cell homeostasis; B cell proliferation; B cell receptor signaling pathway; blood vessel development; blood vessel remodeling; chondrocyte differentiation; endochondral ossification; germinal center formation; heart development; heart looping; humoral immune response; learning and/or memory; MAPKKK cascade; melanocyte differentiation; muscle cell fate determination; muscle development; myotube differentiation; negative regulation of neuron apoptosis; negative regulation of ossification; negative regulation of transcription from RNA polymerase II promoter; nervous system development; neural crest cell differentiation; neuron development; neuron differentiation; neuron migration; neuron morphogenesis during differentiation; osteoblast differentiation; platelet formation; positive regulation of B cell proliferation; positive regulation of bone mineralization; positive regulation of cardiac muscle cell proliferation; positive regulation of muscle cell differentiation; positive regulation of myoblast differentiation; positive regulation of neuron differentiation; positive regulation of osteoblast differentiation; positive regulation of skeletal muscle development; positive regulation of transcription from RNA polymerase II promoter; positive regulation of transcription, DNA-dependent; regulation of excitatory postsynaptic membrane potential; regulation of germinal center formation; regulation of megakaryocyte differentiation; regulation of neuron apoptosis; regulation of neurotransmitter secretion; regulation of synaptic activity; regulation of synaptic plasticity; regulation of synaptic transmission, glutamatergic; regulation of synaptogenesis; regulation of transcription, DNA-dependent; response to virus; skeletal muscle development; smooth muscle cell differentiation; ventricular cardiac muscle cell differentiation Disease: Mental Retardation, Autosomal Dominant 20
Research Articles on MEF2C	**1.** Data show that high myocyte enhancer factor 2C (MEF2C) mRNA expression leads to overexpression of MEF2C protein, and these findings provide the rationale for therapeutic targeting of MEF2C transcriptional activation in acute myeloid leukemia.

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