abcam

Product datasheet

Recombinant Human MEF2C protein ab114241

画像数1

製品の詳細

製品名 Recombinant Human MEF2C protein

発現系Wheat germアクセッション番号Q06413

タンパク質長 Full length protein

Animal free No

由来 Recombinant

生物種 Human

配列 MGRKKIQITRIMDERNRQVTFTKRKFGLMKKAYELSVLCDCE

IALIIFNS TNKLFQYASTDMDKVLLKYTEYNEQ

HESRTNSDIVETLRKKGLNGCDS

PDPDADDSVGHSPESEDKYRKINEDIDLMISRQRLCAVPPPN

FEMPVSIP VS

SHNSLVYSNPVSSLGNPNLLPLAHPSLQRNSMSPGVTHRPPS

AGNT GGLMGGDLTSGAGTSAGNGYGNPRNSPGL

LVSPGNLNKNMQAKSPPPM

NLGMNNRKPDLRVLIPPGSKNTMPSVSEDVDLLLNQRINNSQ

SAQSLATP VVSVAT

PTLPGQGMGGYPSAISTTYGTEYSLSSADLSSLSGFNTASAL

HLGSVTGWQQQHLHNMQPSALSQLGACTSTHLS

QSSNLSLPSTQSLNI

KSEPVSPPRDRTTTPSRYPQHTRHEAGRSPVDSLSSCSSSYD GSDREDHR NEFHSPIGLT RPSPDERESPSVKRMRLSE

予測される分子量 78 kDa including tags

領域 1 to 469

特性

Our Abpromise guarantee covers the use of ab114241 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション ELISA

SDS-PAGE Western blot 備考

前処理および保存

保存方法および安定性

Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 8.00

Constituents: 0.3% Glutathione, 0.79% Tris HCI

関連情報

機能

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 lgG1 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.

組織特異性

関連疾患

Expressed in brain and skeletal muscle.

Defects in MEF2C are the cause of mental retardation-stereotypic movements-epilepsy and/or cerebral malformations (MRSME) [MIM:613443]. It is 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.

配列類似性

Belongs to the MEF2 family. Contains 1 MADS-box domain.

Contains 1 Mef2-type DNA-binding domain.

発生段階

Expression is highest during the early stages of postnatal development, at later stages levels greatly decrease.

ドメイン

The beta domain, missing in a number of isoforms, is required for enhancement of transcriptional activity.

翻訳後修飾

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 diffentiating myocytes. Acetylation on Lys-4 increases DNA binding and transactivation.

Sumoylated on Lys-391 by SUMO2 but not by SUMO1 represses transcriptional activity. Proteolytically cleaved in cerebellar granule neurons, probably by caspase 7, following

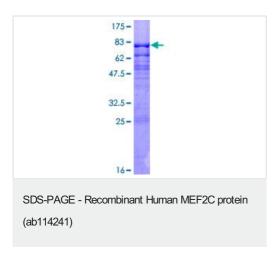
 $neurotoxicity. \ Preferentially\ cleaves\ the\ CDK5-mediated\ hyperphosphory lated\ form\ which\ leads\ to$

 $neuron\ apoptosis\ and\ transcriptional\ inactivation.$

細胞内局在

Nucleus.

画像



12.5% SDS-PAGE showing ab114241 at approximately 77.66kDa stained with Coomassie Blue.

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