

Recombinant Human MEF2A protein (His tag) ab204772

画像数 2

製品の詳細

製品名	Recombinant Human MEF2A protein (His tag)		
精製度	> 90 % Purified via His tag. by immobilized-metal affinity chromatography (IMAC) purification.		
発現系	Escherichia coli		
アクセッション番号	<u>Q02078-5</u>		
タンパク質長	Full length protein		
Animal free	No		
由来	Recombinant		
生物種	Human		
配列	MGRKKIQITR IMDERNRQVT FTKRKFGLMK KAYELSVLCD CEIALIIFNS SNKLFQYAST DMDKVLLKYT EYNEPHESRT NSDIVEALNK KEHRGCDSPD PDTSYVLTPH TEEKYKKINE EFDNMMRNHK IAPGLPPQNF SMSVTVPVTS PNALSYTNPG SSLVSPSLAA SSTLTDSSML SPPQTTLHRN VSPGAPQRPP STGNAGGMLS TTDLTVPNGA GSSPVGNGFV NSRASPNLIG ATGANSLGKV MPTKSPPPPG GGNLGMNSRK PDLRVVIPPS SKGMPPLNT QRISSSQATQ PLATPVVSVT TPSLPPQGLV YSAMPTAYNT DYSLTSADLS ALQGFNSPGM LSLGQVSAWQ QHHLGQAALS SLVAGGQLSQ GSNLSINTNQ NISIKSEPIS PPRDRMTPSG FQQQQQQQQQ QQPPPPQPQ PQPPQPQPRQ EMGRSPVDSL SSSSSSYDGS DREDPRGDFH SPIVLGRPPN TEDRESPSVK RMRMDAWVT		
予測される分子量	55 kDa including tags		
領域	1 to 499		
タグ	His tag C-Terminus		
配列の追加情報	Isoform 5. NP_005578.2		
特性			

Our **Abpromise guarantee** covers the use of **ab204772** 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	Western blot
	Mass Spectrometry
	SDS-PAGE
質量分析	MALDI-TOF
製品の状態	Liquid

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. Store at -80°C. Avoid freeze / thaw cycle. Constituent: 100% PBS
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関連情報

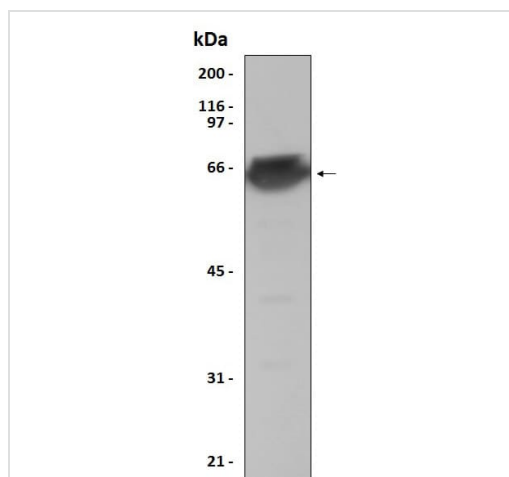
機能	Transcriptional activator which binds specifically to the MEF2 element, 5'-YTA[AT](4)TAR-3', found in numerous muscle-specific genes. Also involved in the activation of numerous growth factor- and stress-induced genes. Mediates cellular functions not only in skeletal and cardiac muscle development, 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.
組織特異性	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.
関連疾患	Defects in MEF2A might be a cause of autosomal dominant coronary artery disease 1 with myocardial infarction (ADCAD1) [MIM:608320].
配列類似性	Belongs to the MEF2 family. Contains 1 MADS-box domain. Contains 1 Mef2-type DNA-binding domain.
翻訳後修飾	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. 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. 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.

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.

細胞内局在

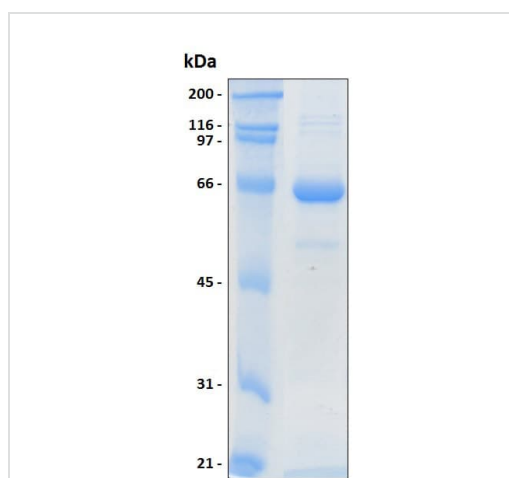
Nucleus.

画像



Western blot - Recombinant Human MEF2A protein (ab204772)

anti-6xHis monoclonal antibody + Recombinant Human MEF2A protein (His tag) (ab204772)



SDS-PAGE - Recombinant Human MEF2A protein (ab204772)

10% SDS-PAGE analysis of ab204772 stained with Coomassie Blue.

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