


### Anti-MEF2A antibody [EPR1451] ab109420

リコンビナント RabMAb<sup>®</sup>

#### 8 References [画像数 3](#)

#### 製品の概要

製品名	Anti-MEF2A antibody [EPR1451]
製品の詳細	Rabbit monoclonal [EPR1451] to MEF2A
由来種	Rabbit
アプリケーション	<b>適用あり:</b> WB, ICC/IF <b>適用なし:</b> Flow Cyt, IHC-P or IP
種交差性	<b>交差種:</b> Human <b>交差が予測される動物種:</b> Mouse, Rat 
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	Human heart, Human skeletal muscle, HeLa and Saos-2 lysate; HeLa cells
特記事項	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information <a href="#">see here</a> . Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a> .

#### 製品の特性

製品の状態	Liquid
保存方法	Store at -20°C. Stable for 12 months at -20°C
バッファー	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPR1451

## アプリケーション

**The Abpromise guarantee** **Abpromise保証は、次のテスト済みアプリケーションにおけるab109420の使用に適用されず**  
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB		1/10000 - 1/50000. Predicted molecular weight: 55 kDa.
ICC/IF		1/100 - 1/250.

## 追加情報

Is unsuitable for Flow Cyt, IHC-P or IP.

## ターゲット情報

## 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

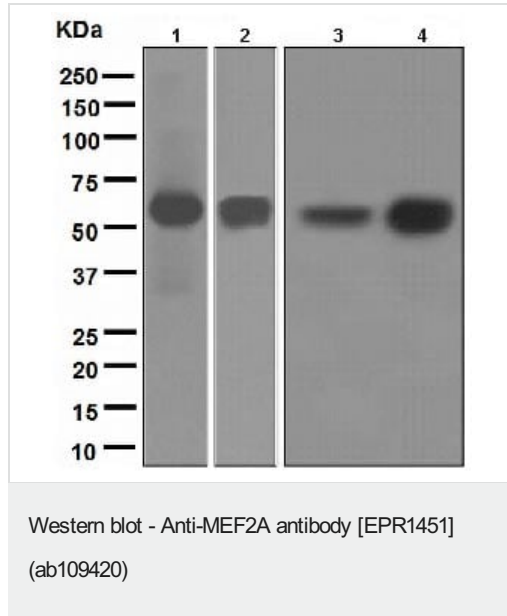
Constitutive phosphorylation on Ser-408 promotes Lys-403 sumoylation thus preventing acetylation at this site. Dephosphorylation on Ser-408 by PPP3CA upon neuron depolarization promotes a switch from sumoylation to acetylation on residue Lys-403 leading to inhibition of dendrite claw differentiation. 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



**All lanes :** Anti-MEF2A antibody [EPR1451] (ab109420) at 1/10000 dilution

**Lane 1 :** Human heart lysate

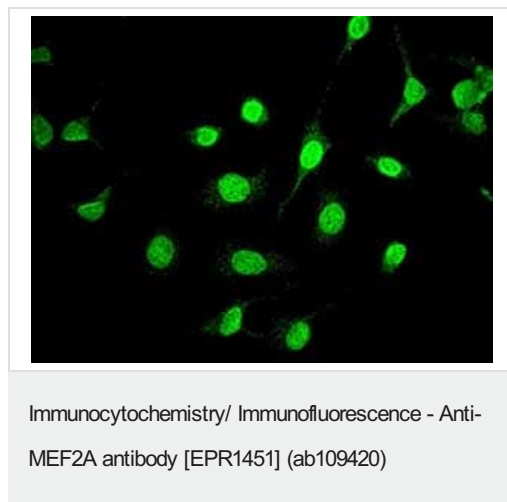
**Lane 2 :** Human skeletal muscle lysate

**Lane 3 :** HeLa cell lysate

**Lane 4 :** Saos-2 cell lysate

Lysates/proteins at 10 µg per lane.

**Predicted band size:** 55 kDa



ab109420, at 1/100 dilution, staining MEF2A in HeLa cells by Immunohistochemistry.

Why choose a recombinant antibody?

**Research with confidence**  
Consistent and reproducible results

**Long-term and scalable supply**  
Recombinant technology

**Success from the first experiment**  
Confirmed specificity

**Ethical standards compliant**  
Animal-free production

Anti-MEF2A antibody [EPR1451] (ab109420)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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