abcam

Product datasheet

Anti-MEF2A antibody [EPR1451] - BSA and Azide free ab247854

יעלאעבע RabMAb

画像数3

製品の概要

製品名 Anti-MEF2A antibody [EPR1451] - BSA and Azide free

製品の詳細 Rabbit monoclonal [EPR1451] to MEF2A - BSA and Azide free

由来種 Rabbit

アプリケーション 適用あり: ICC/IF, WB

適用なし: Flow Cyt,IHC-P or IP

種交差性 交差種: Human

交差が予測される動物種: Mouse, Rat 🔷

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

ab247854 is the carrier-free version of ab109420. 特記事項

> Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.

This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cellbased assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

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 see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Store at +4°C. Do Not Freeze.

バッファー pH: 7.2

Constituent: PBS

キャリア・フリー はい

精製度 Affinity purified ポリ/モノ モノクローナル PDローン名 EPR1451

アイソタイプ lgG

アプリケーション

The Abpromise guarantee <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab247854の使用に適用されます 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
ICC/IF		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 55 kDa.

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.

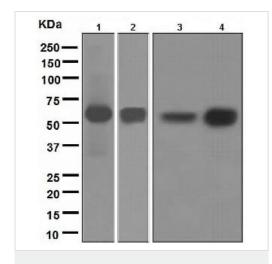
Sumoylation on Lys-403 is enhanced by PIAS1 and represses transcriptional activity. Phosphorylation on Ser-408 is required for sumoylation. Has no effect on nuclear location nor on DNA binding. Sumoylated by SUMO1 and, to a lesser extent by SUMO2 and SUMO3. PIASx facilitates sumoylation in postsynaptic dendrites in the cerebellar cortex and promotes their morphogenesis.

Acetylation on Lys-403 activates transcriptional activity. Acetylated by p300 on several sites in diffentiating 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 - Anti-MEF2A antibody [EPR1451] - BSA and Azide free (ab247854)

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

Lane 1: Human heart lysate

Lane 2: Human skeletal muscle lysate

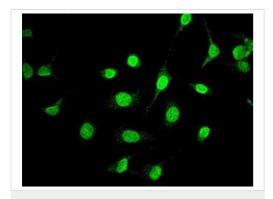
Lane 3 : HeLa cell lysate

Lane 4: Saos-2 cell lysate

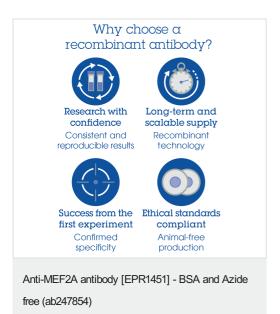
Lysates/proteins at 10 µg per lane.

Predicted band size: 55 kDa

This data was developed using <u>ab109420</u>, the same antibody clone in a different buffer formulation.



Immunocytochemistry/ Immunofluorescence - Anti-MEF2A antibody [EPR1451] - BSA and Azide free (ab247854) This data was developed using <u>ab109420</u>, the same antibody clone in a different buffer formulation.<u>ab109420</u>, at 1/100 dilution, staining MEF2A in HeLa cells by Immunohistochemistry.



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