# abcam

## Product datasheet

## Anti-MEK1 antibody [E342] ab32091





重组 RabMAb

★★★★★ 5 Abreviews 43 References 6 图像

概述

产品名称 Anti-MEK1抗体[E342]

描述 兔单克隆抗体[E342] to MEK1

宿主 Rabbit

特异性 This antibody recognises MEK1, but does not cross react with other MAP kinase kinase family

适用于: Flow Cyt (Intra), WB, IHC-P, ICC/IF 经测试应用

与反应: Human 种属反应性

预测可用于: Mouse, Rat, Cow, Dog \_\_\_\_\_\_

免疫原 Synthetic peptide within Human MEK1 aa 1-100 (N terminal). The exact sequence is proprietary.

Database link: Q02750

阳性对照 WB: A431 cells and cell lysate. IHC-P: Human cervical carcinoma. ICC/IF: HeLa cells.

常规说明 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**.

性能

形式 Liquid

存放说明 Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

存储溶液 pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA

纯度 Protein A purified

克隆 单克隆

**克隆编号** E342

**同种型** IgG

#### 应用

## The Abpromise guarantee Abpromise™承诺保证使用ab32091于以下的经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明	
Flow Cyt (Intra)		1/100.  ab172730 - Rabbit monoclonal lgG, is suitable for use as an isotype control with this antibody.	
WB	<b>★★★★★ (4)</b>	1/1000 - 1/5000. Detects a band of approximately 45 kDa (predicted molecular weight: 43 kDa).	
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.	
ICC/IF		1/100 - 1/500.	

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功能 Catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in a Thr-Glu-Tyr

sequence located in MAP kinases. Activates ERK1 and ERK2 MAP kinases.

组织**特异性** Widely expressed, with extremely low levels in brain.

疾病相关 Defects in MAP2K1 are a cause of cardiofaciocutaneous syndrome (CFC syndrome)

[MIM:115150]; also known as cardio-facio-cutaneous syndrome. CFC syndrome is characterized by a distinctive facial appearance, heart defects and mental retardation. Heart defects include pulmonic stenosis, atrial septal defects and hypertrophic cardiomyopathy. Some affected individuals present with ectodermal abnormalities such as sparse, friable hair, hyperkeratotic skin lesions and a generalized ichthyosis-like condition. Typical facial features are similar to Noonan

syndrome. They include high forehead with bitemporal constriction, hypoplastic supraorbital ridges, downslanting palpebral fissures, a depressed nasal bridge, and posteriorly angulated ears with prominent helices. The inheritance of CFC syndrome is autosomal dominant.

Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase

subfamily.

Contains 1 protein kinase domain.

翻译后修饰 Phosphorylation on Ser/Thr by MAP kinase kinase kinases (RAF or MEKK1) regulates positively

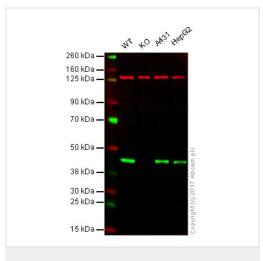
the kinase activity.

Acetylation by Yersinia yopJ prevents phosphorylation and activation, thus blocking the MAPK

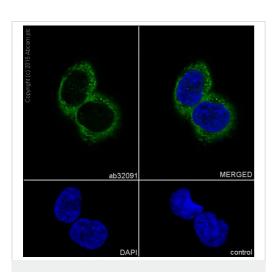
signaling pathway.

#### 图片

序列相似性



Western blot - Anti-MEK1 antibody [E342] (ab32091)



Immunocytochemistry/ Immunofluorescence - Anti-MEK1 antibody [E342] (ab32091)

Lane 1: Wild-type HAP1 whole cell lysate (20 µg)

Lane 2: MEK1 knockout HAP1 whole cell lysate (20 µg)

Lane 3: A431 whole cell lysate (20 µg)

Lane 4: HepG2 whole cell lysate (20 µg)

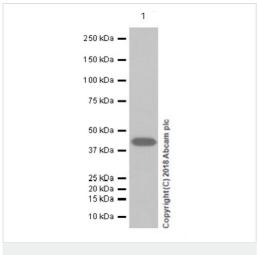
**Lanes 1 - 4:** Merged signal (red and green). Green - ab32091 observed at 43 kDa. Red - loading control, **ab18058**, observed at 130 kDa.

ab32091 was shown to specifically react with MEK1 in wild-type HAP1 cells as signal was lost in MEK1 knockout cells. Wild-type and MEK1 knockout samples were subjected to SDS-PAGE.

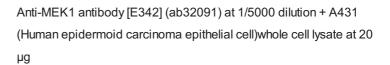
Ab32091 and ab18058 (Mouse anti-Vinculin loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

Immunocytochemistry/Immunofluorescence analysis of HeLa cells labelling MEK1 with purified ab32091 at dilution of 1/500. Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% Triton X-100. <a href="mailto:ab150077">ab150077</a>, Alexa Fluor<sup>®</sup> 488-conjugated goat antirabbit IgG (1/1000) was used as the secondary antibody. Nuclei were counterstained with DAPI (blue).

Secondary Only Control: PBS was used instead of the primary antibody as the negative control.



Western blot - Anti-MEK1 antibody [E342] (ab32091)



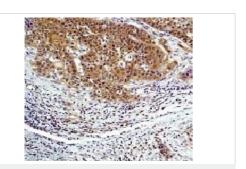
## **Secondary**

Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

**Predicted band size:** 43 kDa **Observed band size:** 45 kDa

Exposure time: 15 seconds

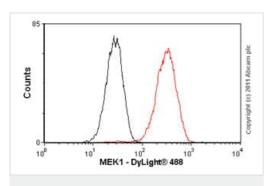
Blocking/Diluting buffer and concentration: 5% NFDM /TBST



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-MEK1 antibody [E342] (ab32091)

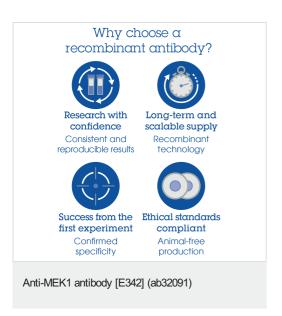
Ab32091, at a 1/100 dilution, staining MEK1 in paraffin embedded human cervical carcinoma tissue by Immunohistochemistry.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-MEK1 antibody [E342] (ab32091)

Overlay histogram showing HeLa cells stained with ab32091 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab32091, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit lgG (H+L) (ab96899) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit lgG (monoclonal) (1µg/1x106 cells) used under the same conditions. Acquisition of >5,000 events was performed.



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