# abcam

# Product datasheet

# Alexa Fluor® 568 Anti-MEK1 antibody [E342] ab214382

Recombinant RabMAb

## 2 Images

#### Overview

**Product name** Alexa Fluor® 568 Anti-MEK1 antibody [E342]

**Description** Alexa Fluor® 568 Rabbit monoclonal [E342] to MEK1

**Host species** Rabbit

Conjugation Alexa Fluor® 568. Ex: 578nm, Em: 603nm

**Tested applications** Suitable for: ICC/IF Species reactivity Reacts with: Human

Predicted to work with: Mouse, Rat, Cow, Dog

**Immunogen** Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

Positive control ICC/IF: HeLa cells

**General notes** 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**.

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#### **Properties**

Form Liquid

**Storage instructions** Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C.

Avoid freeze / thaw cycle. Store In the Dark.

**Storage buffer** pH: 7.40

Preservative: 0.02% Sodium azide

Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS

Purity Protein A purified

**Clonality** Monoclonal

Clone number E342 lsotype lgG

#### **Applications**

The Abpromise guarantee

Our Abpromise guarantee covers the use of ab214382 in the following tested applications.

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

Application	Abreviews	Notes
ICC/IF		1/100. This product gave a positive signal in HeLa cells fixed with 100% methanol (5 min)

#### **Target**

**Function** 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.

**Tissue specificity** Widely expressed, with extremely low levels in brain.

**Involvement in disease** 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.

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

subfamily.

Contains 1 protein kinase domain.

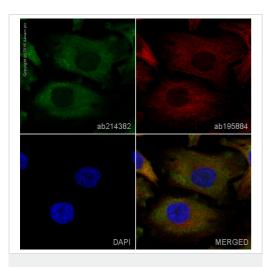
Post-translational modifications

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

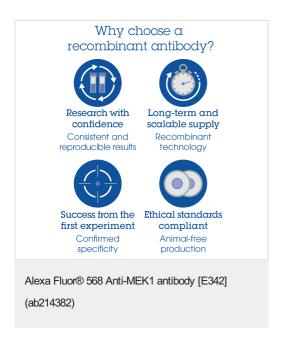
#### **Images**



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 568 Anti-MEK1 antibody [E342] (ab214382)

ab214382 staining MEK1 in HeLa cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab214382 at 1/100 dilution (pseudocolored in green) and ab195884, Rat monoclonal to Tubulin (Alexa Fluor® 647), at 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



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