

Datasheet for ABIN6255658
anti-MEK1 antibody (pThr292)[Go to Product page](#)

3 Images

Overview

| | |
|----------------------|--|
| Quantity: | 100 µL |
| Target: | MEK1 (MAP2K1) |
| Binding Specificity: | pThr292 |
| Reactivity: | Human, Mouse, Rat |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Conjugate: | This MEK1 antibody is un-conjugated |
| Application: | Western Blotting (WB), ELISA, Immunofluorescence (IF), Immunocytochemistry (ICC) |

Product Details

| | |
|-----------------------|---|
| Immunogen: | A synthesized peptide derived from human MEK1 around the phosphorylation site of Thr292. |
| Isotype: | IgG |
| Specificity: | Phospho-MEK1 (Thr292) Antibody detects endogenous levels of MEK1 only when phosphorylated at Threonine 292. |
| Predicted Reactivity: | Pig,Bovine,Horse,Sheep,Rabbit,Dog,Chicken |
| Purification: | The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns. |

Target Details

| | |
|---------|---------------|
| Target: | MEK1 (MAP2K1) |
|---------|---------------|

Target Details

Alternative Name: MAP2K1 ([MAP2K1 Products](#))

Background: Description: Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. Binding of extracellular ligands such as growth factors, cytokines and hormones to their cell-surface receptors activates RAS and this initiates RAF1 activation. RAF1 then further activates the dual-specificity protein kinases MAP2K1/MEK1 and MAP2K2/MEK2. Both MAP2K1/MEK1 and MAP2K2/MEK2 function specifically in the MAPK/ERK cascade, and catalyze the concomitant phosphorylation of a threonine and a tyrosine residue in a Thr-Glu-Tyr sequence located in the extracellular signal-regulated kinases MAPK3/ERK1 and MAPK1/ERK2, leading to their activation and further transduction of the signal within the MAPK/ERK cascade. Depending on the cellular context, this pathway mediates diverse biological functions such as cell growth, adhesion, survival and differentiation, predominantly through the regulation of transcription, metabolism and cytoskeletal rearrangements. One target of the MAPK/ERK cascade is peroxisome proliferator-activated receptor gamma (PPARG), a nuclear receptor that promotes differentiation and apoptosis. MAP2K1/MEK1 has been shown to export PPARG from the nucleus. The MAPK/ERK cascade is also involved in the regulation of endosomal dynamics, including lysosome processing and endosome cycling through the perinuclear recycling compartment (PNRC), as well as in the fragmentation of the Golgi apparatus during mitosis.

Gene: MAP2K1

Molecular Weight: 45kDa

Gene ID: 5604

UniProt: [Q02750](#)

Pathways: [MAPK Signaling](#), [RTK Signaling](#), [Interferon-gamma Pathway](#), [Fc-epsilon Receptor Signaling Pathway](#), [Neurotrophin Signaling Pathway](#), [Activation of Innate immune Response](#), [Toll-Like Receptors Cascades](#), [Autophagy](#), [Signaling of Hepatocyte Growth Factor Receptor](#), [BCR Signaling](#)

Application Details

Application Notes: WB 1:500-1:2000, IF/ICC 1:100-1:500, ELISA(peptide) 1:20000-1:40000

Restrictions: For Research Use only

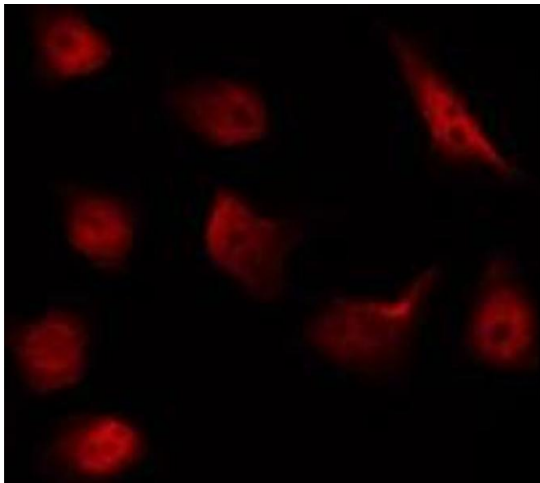
Handling

Format: Liquid

Handling

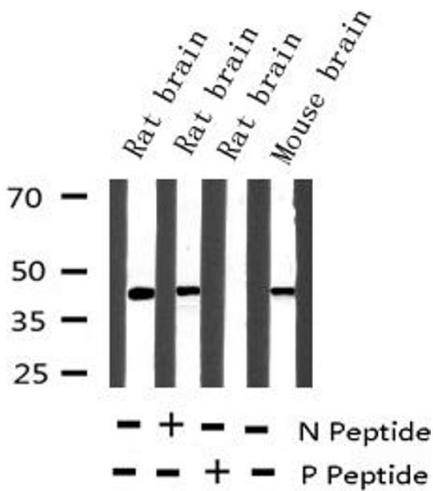
| | |
|--------------------|--|
| Concentration: | 1 mg/mL |
| Buffer: | Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol. |
| Preservative: | Sodium azide |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Storage: | -20 °C |
| Storage Comment: | Store at -20 °C. Stable for 12 months from date of receipt. |
| Expiry Date: | 12 months |

Images



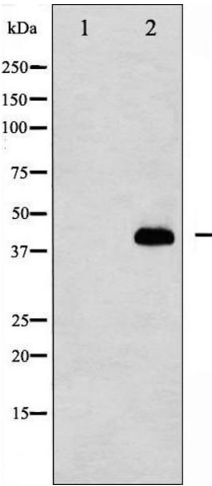
Immunofluorescence (fixed cells)

Image 1. ABIN6267592 staining NIH-3T3 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25°C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37°C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



Western Blotting

Image 2. Western blot analysis of Phospho-MEK1 (Thr291) expression in various lysates



Western Blotting

Image 3. Western blot analysis of MEK1 phosphorylation expression in K562 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.