Recombinant MEK1/MAP2K1 Monoclonal Antibody

catalog number: AN300507P

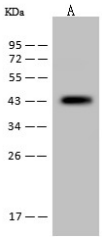
Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

Description

Reactivity	Mouse
Immunogen	Recombinant Mouse MEK1/MAP2K1 Protein
Host	Rabbit
Isotype	IgG
Clone	B437
Purification	Protein A
Buffer	0.2 μm filtered solution in PBS

Applications	Recommended Dilution
WB	1:500-1:2000
ICC/IF	1:20-1:100

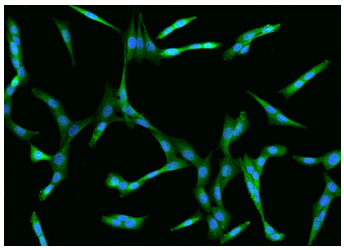
Data



Western Blot with MAP2K1 Monoclonal Antibody at dilution of 1:500 dilution. Lane A: RAW246.7 Whole Cell Lysate, Lysates/proteins at 30 μg per lane.

Observed-MW:43 kDa

Calculated-MW:43 kDa



Immunofluorescence analysis of MEK1 in NIH/3T3 cells. Cells were fixed with 4% PFA, permeabilzed with 0.1% Triton X-100 in PBS,blocked with 10% serum, and incubated with rabbit anti-Mouse MEK1 monoclonal antibody (dilution ratio 1:60) at 4°C overnight. Then cells were stained with the Alexa Fluor®488-conjugated Goat Anti-rabbit IgG secondary antibody (green) and counterstained with DAPI (blue).Positive staining was localized to Cytoplasm.

Preparation & Storage

Storage	This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. Preservative-Free. Avoid repeated freeze-thaw cycles.
Shipping	Ice bag

Background

MEK1, also known as MAP2K1 and MKK1, is a member of the dual-specificity protein kinase family, which acts as a mitogen-activated protein (MAP) kinase kinase. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals. MEK1 is widely expressed, with extremely low levels in the brain. It lies upstream of MAP kinases and stimulates the enzymatic activity of MAP kinases upon a wide variety of extra- and intracellular signals. As an essential component of the MAP kinase signal transduction pathway, MEK1 is involved in many cellular processes such as proliferation, differentiation, transcription regulation, and development. Binding 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 and MEK2. MEK1 has been shown to export PPARG from the nucleus. The MAPK 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. MKK1 catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in a Thr-Glu-Tyr sequence located in MAP kinases. Defects in MEK1 can cause Cardiofaciocutaneous Syndrome.

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