

Anti-MP2K1 Antibody

Catalog Number: M00292-3

About MAP2K1

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.

Overview

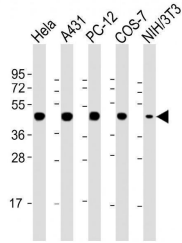
Product Name	Anti-MP2K1 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-MP2K1 Antibody (Catalog # M00292-3). Tested in WB, Flow Cytometry application(s). This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, WB
Clonality	Monoclonal 1678CT373.38.18
Formulation	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.
Storage Instructions	Maintain refrigerated at 2-8°C for up to 2 weeks. For long-term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.
Host	Mouse
Uniprot ID	Q02750

Technical Details

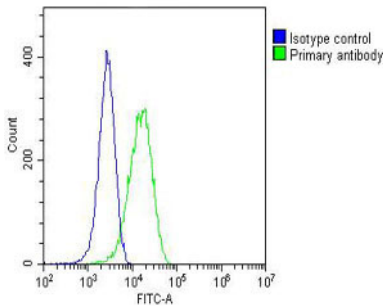
Immunogen	This MP2K1 antibody is generated from a mouse immunized with a recombinant protein between 1-393 amino acids from human MP2K1.
Predicted Reactive Species	Human, Mouse, Rat
Isotype	IgG1,k

Purification	This antibody is purified through a protein G column, followed by dialysis against PBS.
Suggested Dilutions	WB: 1:4000 FC: 1:25

Anti-MP2K1 Antibody (M00292-3) Images



All lanes : Anti-MP2K1 Antibody at 1:4000 dilution
Lane 1: HeLa whole cell lysate
Lane 2: A431 whole cell lysate
Lane 3: PC-12 whole cell lysate
Lane 4: COS-7 whole cell lysate
Lane 5: NIH/3T3 whole cell lysate
Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 43 kDa
Blocking/Dilution buffer: 5% NFDM/TBST.



Overlay histogram showing HeLa cells stained with M00292-3 (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (M00292-3, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Mouse IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was mouse IgG1 (1 µg/1x10⁶ cells) used under the same conditions. Acquisition of >10,000 events was performed.

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Anti-MP2K1 Antibody

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