

Anti-MEKK1/MAP3K1 Antibody Picoband®

Catalog Number: PA1923

About MAP3K1

MAP3K1 (Mitogen-activated protein kinase kinase kinase 1), also known as MEKK1, MAPKKK1, MEK KINASE or MAP/ERK KINASE KINASE 1, is an enzyme that in humans is encoded by the MAP3K1 gene. Vinik et al. (1995) identified DNA sequence and size polymorphisms in intronic and 3-prime untranslated regions of the mouse Map3k1 gene and the human MAP3K1 homolog. Using these allele-specific polymorphisms, they mapped the Map3k1 gene in an intersubspecific backcross to mouse chromosome 13. They mapped the human MAP3K1 gene to chromosome 5 by somatic cell hybrid analysis. By assaying transfected COS-1 cells, Xia et al. (1998) showed that human MEKK1 activated JNK1 (MAPK8) robustly and p38-alpha (MAPK14) less efficiently, but it had only a marginal effect on ERK2 (MAPK1). MEKK1 directly and specifically interacted with JNKK1 (MAP2K4) and activated JNKK1 in cells and in vitro. Phosphorylation of JNKK1 by MEKK1 disrupted their interaction. MEKK1 and JNK1 competed for binding to JNKK1. Xia et al. (1998) concluded that JNKK1 is the preferred MEKK1 substrate.

Overview

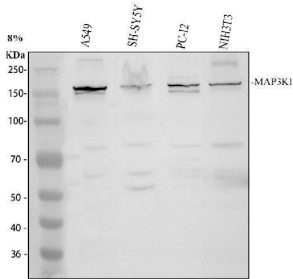
Product Name	Anti-MEKK1/MAP3K1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-MEKK1/MAP3K1 Antibody catalog # PA1923. Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q13233

Technical Details

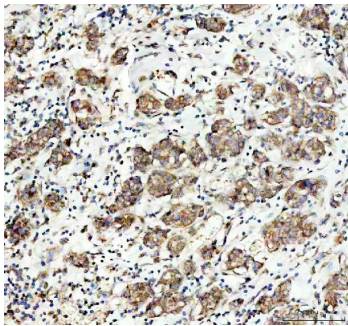
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human MEKK1, identical to the related rat and mouse sequences.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins

Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human Flow Cytometry(Fixed), 1-3 ug/1x10 ⁶ cells, Human

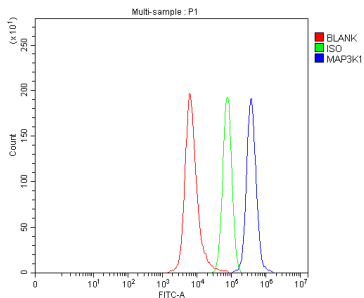
Anti-MEKK1/MAP3K1 Antibody Picoband® (PA1923) Images



Western blot analysis of MAP3K1 using anti-MAP3K1 antibody (PA1923). Electrophoresis was performed on a 8% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human A549 whole cell lysates, Lane 2: human SH-SY5Y whole cell lysates, Lane 3: rat PC-12 whole cell lysates, Lane 4: mouse NIH/3T3 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-MAP3K1 antigen affinity purified polyclonal antibody (PA1923) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for MAP3K1 at approximately 164 kDa. The expected band size for MAP3K1 is at 164 kDa.



IHC analysis of MAP3K1 using anti-MAP3K1 antibody (PA1923). MAP3K1 was detected in a paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-MAP3K1 Antibody (PA1923) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



Flow Cytometry analysis of SH-SY5Y cells using anti-MAP3K1 antibody (PA1923). Overlay histogram showing SH-SY5Y cells stained with PA1923 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-MAP3K1 Antibody (PA1923, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

1 Publications Citing This Product

1. PubMed ID: -, MiRNA-let-7b decreases proliferation activities and development of follicular cells via targeting MAP3K1 gene. Zhuandi

Gong,Yuhui Niu,Yuan Zhaofang,Juan Yang,Suocheng Wei

Visit bosterbio.com/anti-mekk1-antibody-pa1923-boster.html to see all 1 publications.

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Anti-MEKK1/MAP3K1 Antibody

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