BOSTER BIOLOGICAL TECHNOLOGY
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Anti-MAPK1/3 Antibody Picoband®

Catalog Number: PA1049

About MAPK1

MAPK1 (ERK2) shares high homology with MAPK3 (ERK1). MAP kinase phosphatase as a locus of flexibility in a mitogen-activated protein kinase signaling network. Mitogen-activated protein (MAP) kinases [also known as Erks] have been established to function as important mediators of signal transduction by growth factor receptors. ERK1/ERK2-dependent activation of endogenous ribosomal transcription, while inactivation of ERK1/ERK2 causes an equally immediate reversion to the basal transcription level. ERK1/ERK2 was found to phosphorylate the architectural transcription factor UBF at amino acids 117 and 201 within HMG boxes 1 and 2, preventing their interaction with DNA. Mutation of these sites inhibited transcription activation and abrogated the transcriptional response to ERK1/ERK2.

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Overview

Product Name	Anti-MAPK1/3 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-MAPK1/3 Antibody catalog # PA1049. Tested in Flow Cytometry, IF, ICC, 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, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
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	P28482

Technical Details

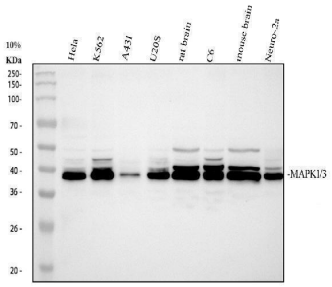
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human MAPK1/3, identical to the related rat and mouse sequences.

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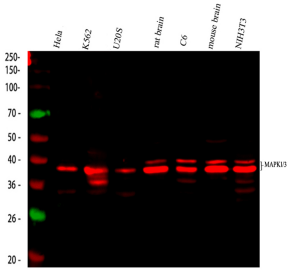
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry(Fixed), 1-3 ug/1x10^6 cells, Human Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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Anti-MAPK1/3 Antibody Picoband® (PA1049) Images



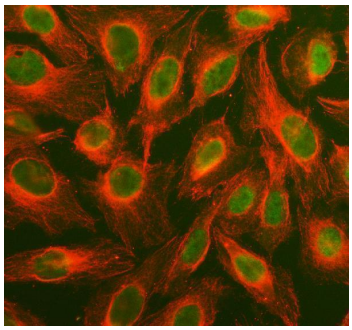
Western blot analysis of MAPK1/3 using anti-MAPK1/3 antibody (PA1049). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human K562 whole cell lysates, Lane 3: human A431 whole cell lysates, Lane 4: human U2OS whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat C6 whole cell lysates, Lane 7: mouse brain tissue lysates, Lane 8: mouse Neuro-2a 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-MAPK1/3 antigen affinity purified polyclonal antibody (PA1049) 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 MAPK1/3 at approximately 38, 42 kDa. The expected band size for MAPK1/3 is at 36, 41 kDa.



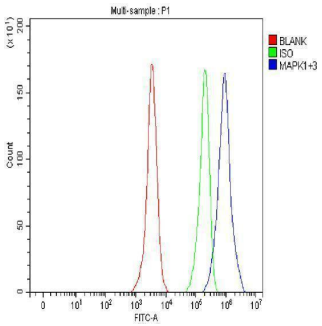
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IF analysis of MAPK1/3 using anti-MAPK1/3 antibody (PA1049) and anti-Tubulin Alpha antibody (M03989-3). MAPK1/3 was detected in immunocytochemical section of U2OS cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-MAPK1/3 Antibody

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(PA1049) and mouse anti-Tubulin Alpha antibody (M03989-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) and Cy3 Conjugated Goat Anti-Mouse IgG (BA1031) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of Hela cells using anti-MAPK1/3 antibody (PA1049). Overlay histogram showing Hela cells stained with PA1049 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-MAPK1/3 Antibody (PA1049, 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.

5 Publications Citing This Product

1. PubMed ID: 26097571, Li Xl, Chen Xq, Zhang Mn, Chen N, Nie L, Xu M, Gong J, Shen Pf, Su Zz, Weng X, Tan Jy, Zhao T, Zeng H, Zhou Q. Int J Clin Exp Pathol. 2015 Apr 1;8(4):3871-81. Ecollection 2015. Sox9 Was Involved In Tkis Resistance In Renal Cell Carcinoma Via Raf/M...

2. PubMed ID: 26097571, Li Xl, Chen Xq, Zhang Mn, Chen N, Nie L, Xu M, Gong J, Shen Pf, Su Zz, Weng X, Tan Jy, Zhao T, Zeng H, Zhou Q. Int J Clin Exp Pathol. 2015 Apr 1;8(4):3871-81. Ecollection 2015. Sox9 Was Involved In Tkis Resistance In Renal Cell Carcinoma Via Raf/M...

3. PubMed ID: 21769431, Sang J, Chen Y, Tao Y. Mol Med Rep. 2011 Nov-Dec;4(6):1163-7. Doi: 10.3892/Mmr.2011.535. Epub 2011 Jul 15. Nitric Oxide Inhibits Gastric Cancer Cell Growth Through The Modulation Of The Akt Pathway.

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