

## Anti-p38 gamma/MAPK12 Antibody Picoband®

Catalog Number: A03942-1

### About MAPK12

Mitogen-activated protein kinase 12 (MAP kinase 12), also known as extracellular signal-regulated kinase 6 (ERK6) or stress-activated protein kinase 3 (SAPK3), is an enzyme that in humans is encoded by the MAPK12 gene. Activation of members of the mitogen-activated protein kinase family is a major mechanism for transduction of extracellular signals. Stress-activated protein kinases are one subclass of MAP kinases. The protein encoded by this gene functions as a signal transducer during differentiation of myoblasts to myotubes.

### Overview

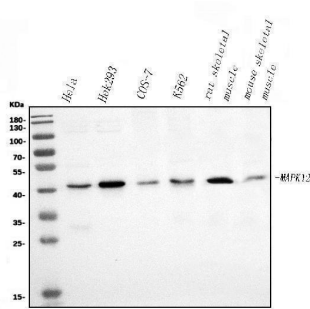
Product Name	Anti-p38 gamma/MAPK12 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-p38 gamma/MAPK12 Antibody Picoband® catalog # A03942-1. Tested in ELISA, Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates 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	ELISA, Flow Cytometry, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg 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	P53778

### Technical Details

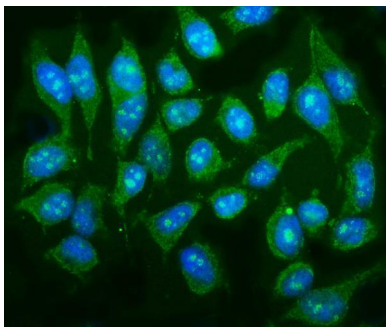
Immunogen	E.coli-derived human MAPK12 recombinant protein (Position: S229-L367).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for ICC.
Cross Reactivity	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, 0.25-0.5ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 <sup>6</sup> cells, Human ELISA, 0.1-0.5ug/ml, -

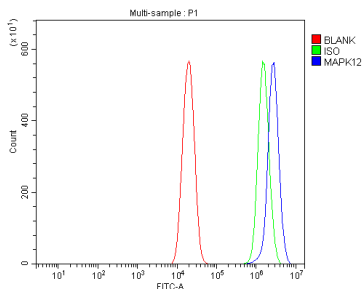
## Anti-p38 gamma/MAPK12 Antibody Picoband® (A03942-1) Images



Western blot analysis of P38 Gamma/MAPK12 using anti-P38 Gamma/MAPK12 antibody (A03942-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 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 HEK293 whole cell lysates, Lane 3: monkey COS-7 whole cell lysates, Lane 4: human K562 whole cell lysates, Lane 5: rat skeletal muscle tissue lysates, Lane 6: mouse skeletal muscle tissue 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-P38 Gamma/MAPK12 antigen affinity purified polyclonal antibody (Catalog # A03942-1) 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 at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for P38 Gamma/MAPK12 at approximately 42 kDa. The expected band size for P38 Gamma/MAPK12 is at 42 kDa.



IF analysis of P38 Gamma/MAPK12 using anti-P38 Gamma/MAPK12 antibody (A03942-1). P38 Gamma/MAPK12 was detected in an immunocytochemical section of HeLa cells. 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-P38 Gamma/MAPK12 Antibody (A03942-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 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 U2OS cells using anti-P38 Gamma/MAPK12 antibody (A03942-1). Overlay histogram showing U2OS cells stained with A03942-1 (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-P38 Gamma/MAPK12 Antibody (A03942-1, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank

control.

## 2 Publications Citing This Product

1. PubMed ID: 10.18632/aging.102743, The protein tyrosine kinase inhibitor, Genistein, delays intervertebral disc degeneration in rats by inhibiting the p38 pathway-mediated inflammatory response

2. PubMed ID: 33856409, Wu T,Liu Q,Li Y,Li H,Chen L,Yang X,Tang Q,Pu S,Kuang J,Li R,Huang Y,Zhang J,Zhang Z,Zhou J,Huang C,Zhang G,Zhao Y,Zou M,Jiang W,Mo L,He J.Feeding-induced hepatokine, Manf, ameliorates diet-induced obesity by promoting adipose browning via p38 MAPK pathway.J Exp Med.2021 Jun 7;218(6):e20201203.doi:10. 1084/jem. 20201203.PMID:33856409.

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