

## Anti-MEK5/MAP2K5 Antibody Picoband®

Catalog Number: A03980-3

### About MAP2K5

Dual specificity mitogen-activated protein kinase kinase 5 is an enzyme that in humans is encoded by the MAP2K5 gene. The protein encoded by this gene is a dual specificity protein kinase that belongs to the MAP kinase kinase family. This kinase specifically interacts with and activates MAPK7/ERK5. This kinase itself can be phosphorylated and activated by MAP3K3/MEKK3, as well as by atypical protein kinase C isoforms (aPKCs). The signal cascade mediated by this kinase is involved in growth factor stimulated cell proliferation and muscle cell differentiation. Three alternatively spliced transcript variants of this gene encoding distinct isoforms have been described.

### Overview

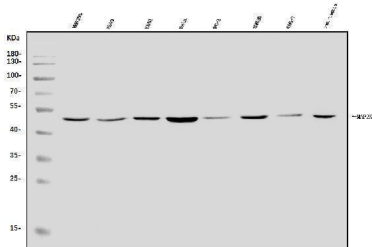
Product Name	Anti-MEK5/MAP2K5 Antibody Picoband®
Reactive Species	Human, Monkey, Rat
Description	Boster Bio Anti-MEK5/MAP2K5 Antibody Picoband® catalog # A03980-3. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Monkey, Rat. The brand Picoband indicates 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, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na <sub>2</sub> HPO <sub>4</sub> .
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	Q13163

### Technical Details

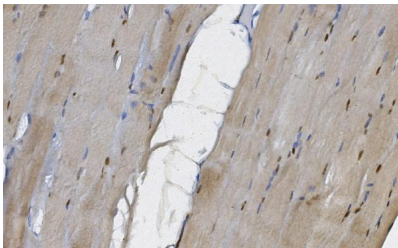
Immunogen	E.coli-derived human MEK5/MAP2K5 recombinant protein (Position: F9-R442).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross 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, Monkey, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 <sup>6</sup> cells, Human ELISA, 0.1-0.5ug/ml, -

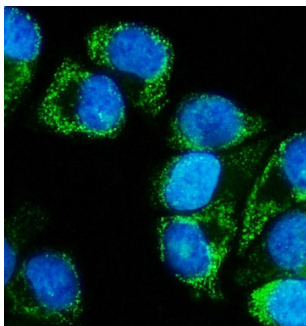
## Anti-MEK5/MAP2K5 Antibody Picoband® (A03980-3) Images



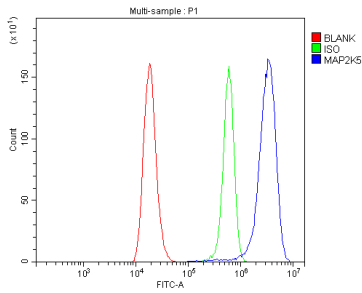
Western blot analysis of MEK5/MAP2K5 using anti-MEK5/MAP2K5 antibody (A03980-3). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30ug of sample under reducing conditions. Lane 1: human HEK293 whole cell lysates, Lane 2: human A549 whole cell lysates, Lane 3: human K562 whole cell lysates, Lane 4: human A549 whole cell lysates, Lane 5: human Hela whole cell lysates, Lane 6: human PC-3 whole cell lysates, Lane 7: human SW620 whole cell lysates, Lane 8: monkey COS-7 whole cell lysates, Lane 9: rat testis tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-MEK5/MAP2K5 antigen affinity purified polyclonal antibody (Catalog # A03980-3) 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 MEK5/MAP2K5 at approximately 50KD. The expected band size for MEK5/MAP2K5 is at 50KD.



IHC analysis of MEK5/MAP2K5 using anti-MEK5/MAP2K5 antibody (A03980-3). MEK5/MAP2K5 was detected in paraffin-embedded section of human skeletal muscle tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-MEK5/MAP2K5 Antibody (A03980-3) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IF analysis of MEK5/MAP2K5 using anti-MEK5/MAP2K5 antibody (A03980-3). MEK5/MAP2K5 was detected in immunocytochemical section of T47D 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 5ug/mL rabbit anti-MEK5/MAP2K5 Antibody (A03980-3) 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 293T cells using anti-MEK5/MAP2K5 antibody (A03980-3). Overlay histogram showing 293T cells stained with A03980-3 (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-MEK5/MAP2K5 Antibody (A03980-3, 1ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/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.

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### Anti-MEK5/MAP2K5 Antibody

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