

Anti-MSK1/RPS6KA5 Antibody Picoband™

Catalog Number: PB9268

About RPS6KA5

Ribosomal protein S6 kinase alpha-5, also known as MSK1, is an enzyme that in humans is encoded by the RPS6KA5 gene. It belongs to the AGC family of kinases. MSK1 gene is mapped to chromosome 14q31-q32. Northern blot analysis indicated that MSK1 was expressed as a 4-kb mRNA in all tissues tested, with the highest levels of expression in brain, muscle, and placenta. MSK1 was activated in vitro and in vivo by either ERK or SAPK2 proteins. It has been found that MSK1, rather than MAPKAP-K1 or MAPKAP-K2/K3, mediates activation of the cAMP response element-binding protein and activating transcription factor-1 by either growth factors or stress signals.

Overview

Product Name	Anti-MSK1/RPS6KA5 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-MSK1/RPS6KA5 Antibody Picoband™ catalog # PB9268. Tested in IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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	O75582

Technical Details

Immunogen	E.coli-derived human MSK1 recombinant protein (Position: V540-Q665). Human MSK1 shares 98% amino acid (aa) sequence identity with mouse MSK1.
Predicted Reactive Species	Bovine
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	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat, By Heat Immunocytochemistry , 0.5-1ug/ml, Human, - Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human

Anti-MSK1/RPS6KA5 Antibody Picoband™ (PB9268) Images

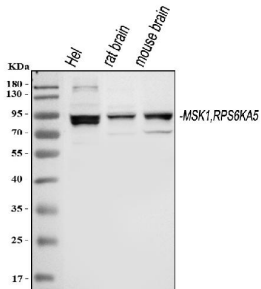


Figure 1. Western blot analysis of MSK1 using anti-MSK1 antibody (PB9268).

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 HEL whole cell lysates,

Lane 2: rat brain tissue lysates,

Lane 3: mouse brain 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-MSK1 antigen affinity purified polyclonal antibody (Catalog # PB9268) 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 MSK1 at approximately 90 kDa. The expected band size for MSK1 is at 90 kDa.

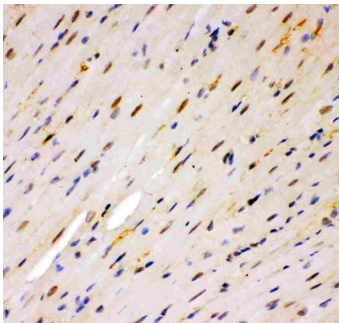


Figure 2. IHC analysis of MSK1 using anti-MSK1 antibody (PB9268).

MSK1 was detected in a paraffin-embedded section of Mouse Cardiac Muscle 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 1 ug/ml rabbit anti-MSK1 Antibody (PB9268) 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.

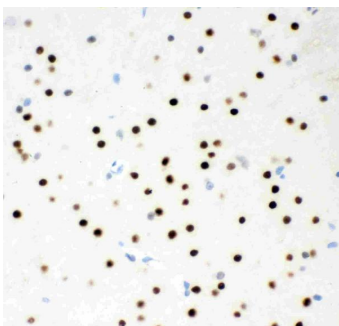
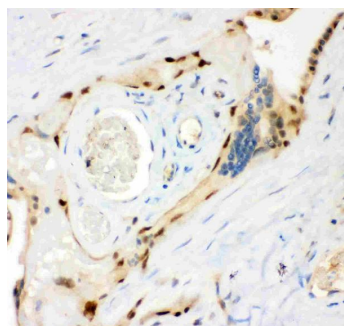


Figure 3. IHC analysis of MSK1 using anti-MSK1 antibody (PB9268).

MSK1 was detected in a paraffin-embedded section of Rat Brain 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 1 ug/ml rabbit anti-MSK1 Antibody (PB9268) 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.

Figure 4. IHC analysis of MSK1 using anti-MSK1 antibody (PB9268).

MSK1 was detected in a paraffin-embedded section of



Human Placenta 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 1 ug/ml rabbit anti-MSK1 Antibody (PB9268) 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.

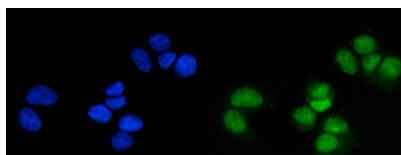


Figure 5. IF analysis of MSK1 using anti-MSK1 antibody (PB9268).

MSK1 was detected in an 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 5 ug/mL rabbit anti-MSK1 Antibody (PB9268) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was 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.

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