

Anti-MSK1 Picoband Antibody
Catalog # ABO11959**Specification**

Anti-MSK1 Picoband Antibody - Product Information

Application	WB, IHC-P, ICC
Primary Accession	O75582
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Ribosomal protein S6 kinase alpha-5(RPS6KA5) detection.
Tested with WB, IHC-P, ICC in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-MSK1 Picoband Antibody - Additional Information

Gene ID 9252

Other Names

Ribosomal protein S6 kinase alpha-5, S6K-alpha-5, 2.7.11.1, 90 kDa ribosomal protein S6 kinase 5, Nuclear mitogen- and stress-activated protein kinase 1, RSK-like protein kinase, RSKL, RPS6KA5, MSK1

Calculated MW

89865 MW KDa

Application Details

Immunocytochemistry , 0.5-1 µg/ml, Human, -
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat

Subcellular Localization

Nucleus. Cytoplasm. Predominantly nuclear. Exported into cytoplasm in response to glucocorticoid.

Tissue Specificity

Widely expressed with high levels in heart, brain and placenta. Less abundant in lung, kidney and liver. .

Protein Name

Ribosomal protein S6 kinase alpha-5

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen

E.coli-derived human MSK1 recombinant protein (Position: V540-Q665). Human MSK1 shares 98% amino acid (aa) sequence identity with mouse MSK1.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. S6 kinase subfamily.

Anti-MSK1 Picoband Antibody - Protein Information

Name RPS6KA5

Synonyms MSK1

Function

Serine/threonine-protein kinase that is required for the mitogen or stress-induced phosphorylation of the transcription factors CREB1 and ATF1 and for the regulation of the transcription factors RELA, STAT3 and ETV1/ER81, and that contributes to gene activation by histone phosphorylation and functions in the regulation of inflammatory genes (PubMed:11909979, PubMed:12569367, PubMed:12763138, PubMed:18511904, PubMed:9687510, PubMed:9873047). Phosphorylates CREB1 and ATF1 in response to mitogenic or stress stimuli such as UV-C irradiation, epidermal growth factor (EGF) and anisomycin (PubMed:11909979, PubMed:9873047). Plays an essential role in the control of RELA transcriptional activity in response to TNF and upon glucocorticoid, associates in the cytoplasm with the glucocorticoid receptor NR3C1 and contributes to RELA inhibition and repression of inflammatory gene expression (PubMed:12628924, PubMed:18511904). In skeletal myoblasts is required for phosphorylation of RELA at 'Ser-276' during oxidative stress (PubMed:12628924). In erythropoietin-stimulated cells, is necessary for the 'Ser-727' phosphorylation of STAT3 and regulation of its transcriptional potential (PubMed:12763138). Phosphorylates ETV1/ER81 at 'Ser-191' and 'Ser-216', and thereby regulates its ability to stimulate transcription, which may be important during development and breast tumor formation (PubMed:12569367). Directly represses transcription via phosphorylation of 'Ser-1' of histone H2A (PubMed:15010469). Phosphorylates 'Ser-10' of histone H3 in response to mitogenics, stress stimuli and EGF, which results in the transcriptional activation of several immediate early genes, including

proto-oncogenes c-fos/FOS and c-jun/JUN (PubMed:12773393). May also phosphorylate 'Ser-28' of histone H3 (PubMed:12773393). Mediates the mitogen- and stress-induced phosphorylation of high mobility group protein 1 (HMG1/HMG14) (PubMed:12773393). In lipopolysaccharide-stimulated primary macrophages, acts downstream of the Toll-like receptor TLR4 to limit the production of pro-inflammatory cytokines (By similarity). Functions probably by inducing transcription of the MAP kinase phosphatase DUSP1 and the anti-inflammatory cytokine interleukin 10 (IL10), via CREB1 and ATF1 transcription factors (By similarity). Plays a role in neuronal cell death by mediating the downstream effects of excitotoxic injury (By similarity). Phosphorylates TRIM7 at 'Ser-107' in response to growth factor signaling via the MEK/ERK pathway, thereby stimulating its ubiquitin ligase activity (PubMed:25851810).

Cellular Location

Nucleus. Cytoplasm. Note=Predominantly nuclear. Exported into cytoplasm in response to glucocorticoid

Tissue Location

Widely expressed with high levels in heart, brain and placenta. Less abundant in lung, kidney and liver

Anti-MSK1 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

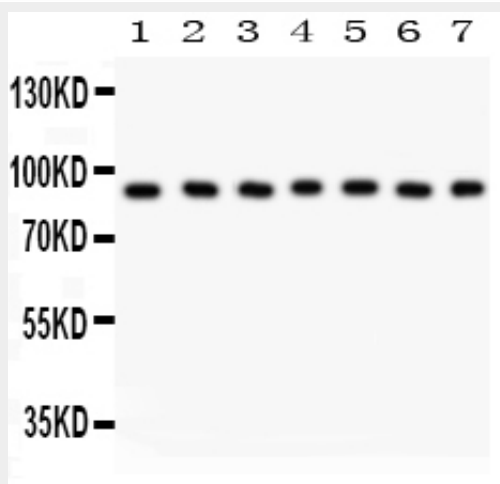
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-MSK1 Picoband Antibody - Images

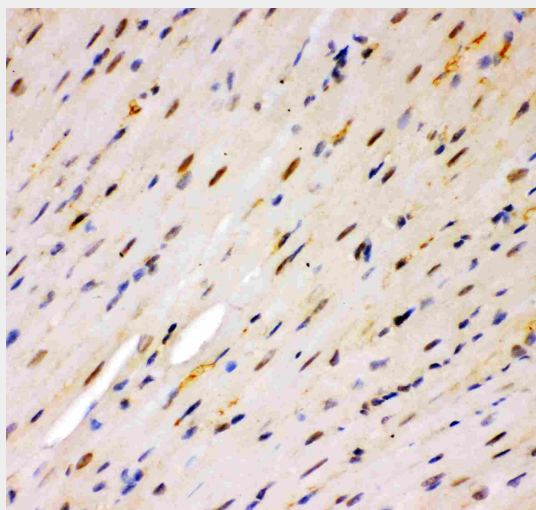


Anti- MSK1 Picoband antibody, ABO11959, Western blottingAll lanes: Anti MSK1 (ABO11959) at 0.5ug/mlWB: Recombinant Human MSK1 Protein 0.5ngPredicted bind size: 50KDObserved bind

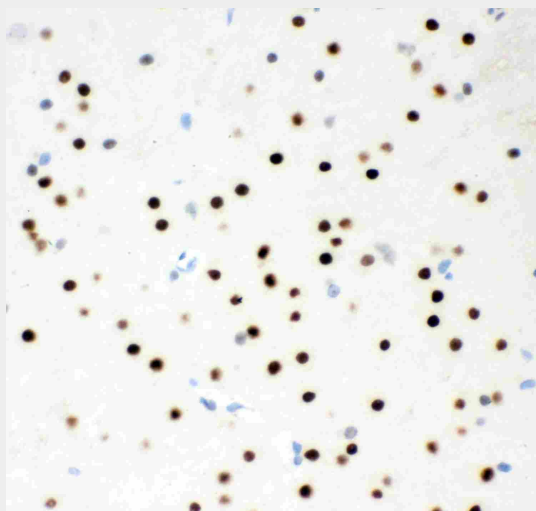
size: 50KD



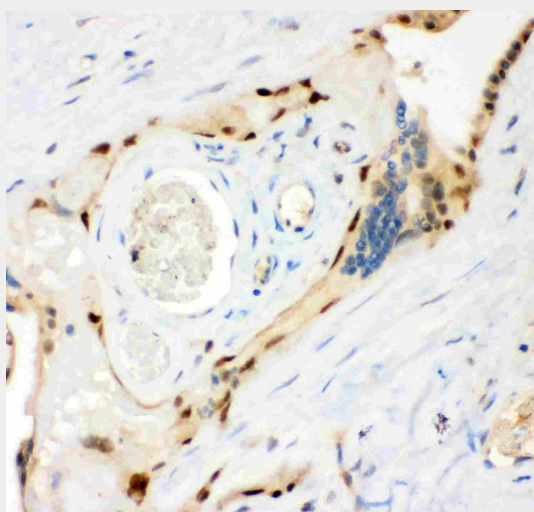
Anti- MSK1 Picoband antibody, ABO11959, Western blotting All lanes: Anti MSK1 (ABO11959) at 0.5ug/ml
Lane 1: Human Placenta Tissue Lysate at 50ug
Lane 2: Rat Brain Tissue Lysate at 50ug
Lane 3: JURKAT Whole Cell Lysate at 40ug
Lane 4: HELA Whole Cell Lysate at 40ug
Lane 5: PANC Whole Cell Lysate at 40ug
Lane 6: A549 Whole Cell Lysate at 40ug
Lane 7: HEPG2 Whole Cell Lysate at 40ug
Predicted bind size: 90KD
Observed bind size: 90KD



Anti- MSK1 Picoband antibody, ABO11959, IHC(P) IHC(P): Mouse Cardiac Muscle Tissue



Anti- MSK1 Picoband antibody, ABO11959, IHC(P)IHC(P): Rat Brain Tissue



Anti- MSK1 Picoband antibody, ABO11959, IHC(P)IHC(P): Human Placenta Tissue

Anti-MSK1 Picoband Antibody - Background

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.