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MSK1 Recombinant Mouse mAb

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Catalog # AP94392

Product Information

Application	WB, IF, ICC
Host	Rabbit
Clonality	Recombinant
Physical State	Liquid
Isotype	IgG1, Kappa
Purity	affinity purified by Protein G
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus. Cytoplasm. Note=Predominantly nuclear. Exported into cytoplasm in response to glucocorticoid.
SIMILARITY	Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. S6 kinase subfamily.Contains 1 AGC-kinase C-terminal domain.Contains 2 protein kinase domains.
SUBUNIT	Forms a complex with either MAPK1/ERK2 or MAPK3/ERK1 in quiescent cells which transiently dissociates following mitogenic stimulation. Also associates with MAPK14/p38-alpha. Activated RPS6KA5 associates with and phosphorylates the NF-kappa-B p65 subunit RELA. Interacts with CREBBP and EP300.
Post-translational modifications	Ser-376 and Thr-581 phosphorylation is required for kinase activity. Ser-376 and Ser-212 are autophosphorylated by the C-terminal kinase domain, and their phosphorylation is essential for the catalytic activity of the N-terminal kinase domain. Phosphorylated at Ser-360, Thr-581 and Thr-700 by MAPK1/ERK2, MAPK3/ERK1 and MAPK14/p38-alpha. Autophosphorylated at Ser-750, Ser-752 and Ser-758 by the N-terminal kinase domain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	MSK1 is a mitogen and stress activated protein kinase 1 which belongs to the AGC family of kinases and is related in structure to the ribosomal p70 S6 kinase subfamily. MSK1 can be activated by ERK1/2 and SAPK2/p38 MAP kinase. It is also known to be required for the phosphorylation of CREB, ATF1 H3 and HMG14 in response to mitogen and stress. Similar to RSK, MSK1 contains two kinase domains (N term and a C term). Once phosphorylated on Thr581 and Ser360 by ERK1/2 and SAPK2/p38, MSK1 autophosphorylate on at least 5 sites. Of these autophosphorylation sites Ser212 and Ser376 get phosphorylated by the C terminal kinase domain of MSK1 which is essential for the catalytic activity of the N terminal kinase domain.

Additional Information

Target/Specificity	Widely expressed with high levels in heart, brain and placenta. Less abundant in lung, kidney and liver. WB=1:500-1:1000,ICC/IF=1:50

Dilution	
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Background

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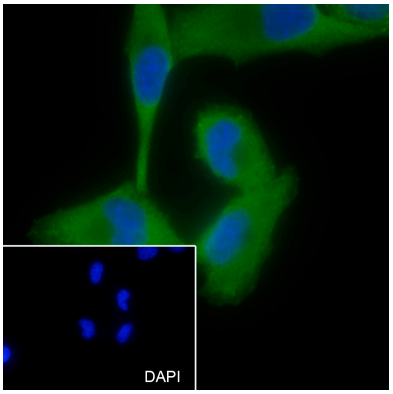
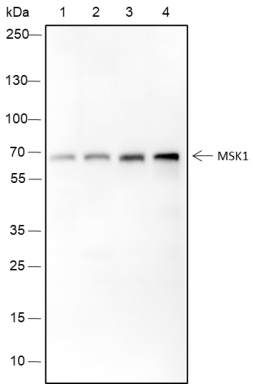
Images



Cell line: A549 Fixative: 4% Paraformaldehyde Permeabilization: 0.1% TritonX-100 Primary ab dilution: 1:50 Primary incubation condition: 4°C overnight Secondary ab: Goat Anti-Mouse IgG Nuclear counter stain: DAPI (Blue) Comment: Color green is the positive signal for AP94392



Blocking buffer: 5% NFDM/TBST Primary ab dilution: 1:1000 Primary ab incubation condition: 2 hours at room temperature Secondary ab: Goat Anti-Mouse IgG H&L (HRP) Lysate: 1: MCF-7, 2: A549, 3: F9, 4: 293T Protein loading quantity: 20 µg Exposure time: 60 s Predicted MW: 70 kDa Observed MW: 70 kDa