

MSK1 (phospho Thr581) Polyclonal Antibody

Catalog No :	YP0535
Reactivity :	Human;Mouse
Applications :	WB;IHC;IF;ELISA
Target :	MSK1
Fields :	>>MAPK signaling pathway;>>Adrenergic signaling in cardiomyocytes;>>TNF signaling pathway;>>Circadian entrainment;>>Neurotrophin signaling pathway;>>Shigellosis;>>Pathways in cancer;>>MicroRNAs in cancer;>>Bladder cancer
Gene Name :	RPS6KA5
Protein Name :	Ribosomal protein S6 kinase alpha-5
Human Gene Id :	9252
Human Swiss Prot No :	O75582
Mouse Gene Id :	73086
Mouse Swiss Prot No :	Q8C050
Immunogen :	The antiserum was produced against synthesized peptide derived from human MSK1 around the phosphorylation site of Thr581. AA range:551-600
Specificity :	Phospho-MSK1 (T581) Polyclonal Antibody detects endogenous levels of MSK1 protein only when phosphorylated at T581.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:40000. Not yet tested in other applications.

Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Observed Band :	90kD
Cell Pathway :	Insulin Receptor; Regulates Angiogenesis; MAPK_ERK_Growth;MAPK_G_Protein; B Cell Receptor; AMPK
Background :	catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Magnesium.,enzyme regulation:Appears to be activated by multiple phosphorylations on threonine and serine residues. ERK1/2 and MAPK14/p38-alpha may play a role in this process.,function:Serine/threonine kinase required for the mitogen or stress-induced phosphorylation of the transcription factors CREB (cAMP response element-binding protein) and ATF1 (activating transcription factor-1). Essential role in the control of RELA transcriptional activity in response to TNF. Directly represses transcription via phosphorylation of 'Ser-1' of histone H2A. Phosphorylates 'Ser-10' of histone H3 in response to mitogenics, stress stimuli and epidermal growth-factor (EGF), which results in the transcriptional activation of several immediate early genes, including proto-oncogenes c-fos/FOS and c-jun/JUN. May also phosphorylate 'Ser-28' of histone H3. Mediates the mitogen- and stress-induced phosphorylation of high mobility group protein 14 (HMG-14).,miscellaneous:Enzyme activity requires the presence of both kinase domains.,PTM: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.,similarity:Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. S6 kinase subfamily.,similarity:Contains 1 AGC-kinase C-terminal domain.,similarity:Contains 2 protein kinase domains.,subcellular location:Predominantly nuclear. Partially cytoplasmic.,subunit:Forms a complex with either ERK1 or ERK2 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.,tissue specificity:Widely expressed with high levels in heart, brain and placenta. Less abundant in lung, kidney and liver.,
Function :	catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Magnesium.,enzyme regulation:Appears to be activated by multiple phosphorylations on threonine and serine residues. ERK1/2 and MAPK14/p38-alpha may play a role in this process.,function:Serine/threonine kinase required for the mitogen or stress-induced phosphorylation of the transcription factors CREB (cAMP response element-binding protein) and ATF1 (activating transcription factor-1). Essential role in the control of RELA transcriptional activity in response to TNF. Directly represses transcription via

phosphorylation of 'Ser-1' of histone H2A. Phosphorylates 'Ser-10' of histone H3 in response to mitogenics, stress stimuli and epidermal growth-factor (EGF), which results in the transcriptional activation of several immediate early genes, including proto-oncogenes c-fos/FOS and c-jun/JUN. May also phosphorylate 'Ser-28'

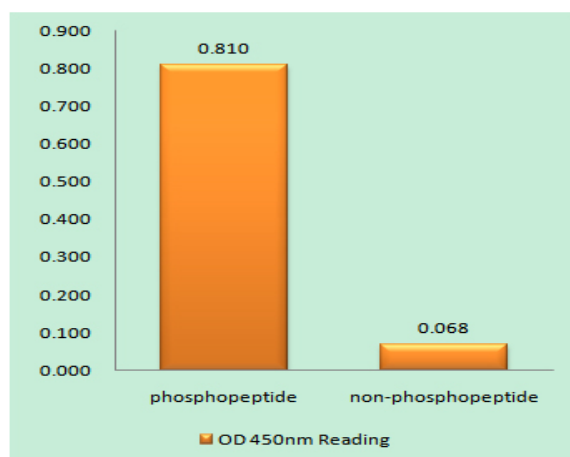
Subcellular Location :

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

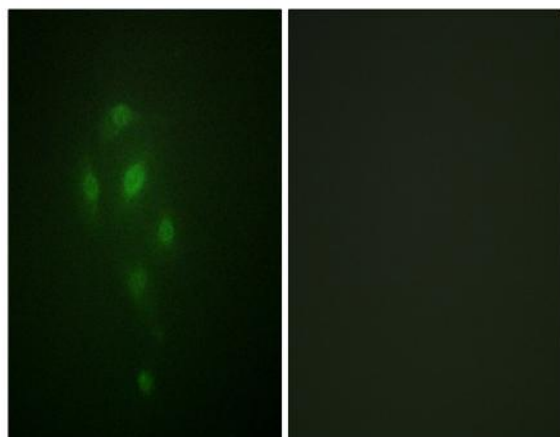
Expression :

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

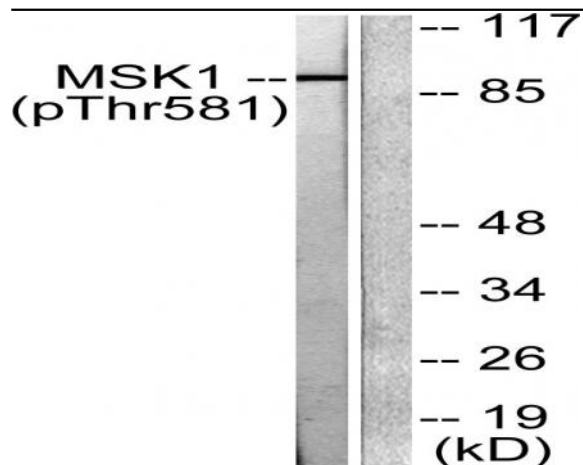
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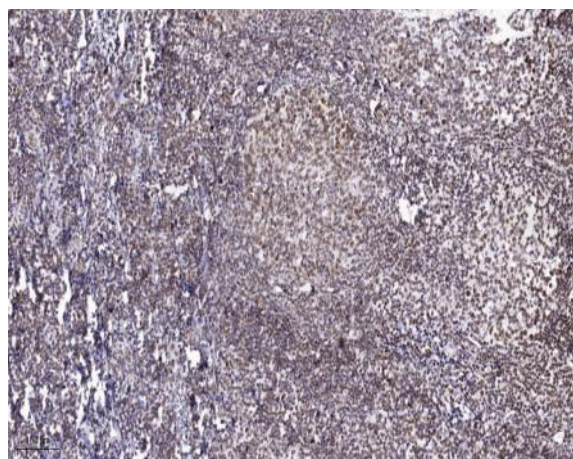
Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using MSK1 (Phospho-Thr581) Antibody



Immunofluorescence analysis of A549 cells, using MSK1 (Phospho-Thr581) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from RAW264.7 cells treated with UV 5', using MSK1 (Phospho-Thr581) Antibody. The lane on the right is blocked with the phospho peptide.



Immunohistochemical analysis of paraffin-embedded human tonsil. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).