



MSK1 (phospho Thr581) rabbit pAb

Cat No.:ES7998

For research use only

Overview

Product Name	MSK1 (phospho Thr581) rabbit pAb
Host species	Rabbit
Applications	WB;IHC;IF;ELISA
Species Cross-Reactivity	Human;Mouse
Recommended dilutions	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/40000. Not yet tested in other applications.
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.
Storage	Store at -20°C. Avoid repeated freeze-thaw cycles.
Protein Name	Ribosomal protein S6 kinase alpha-5
Gene Name	RPS6KA5
Cellular localization	Nucleus. Cytoplasm. Predominantly nuclear. Exported into cytoplasm in response to glucocorticoid.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Clonality	Polyclonal
Concentration	1 mg/ml
Observed band	90kD
Human Gene ID	9252
Human Swiss-Prot Number	O75582
Alternative Names	RPS6KA5; MSK1; Ribosomal protein S6 kinase alpha-5; S6K-alpha-5; 90 kDa ribosomal protein S6 kinase 5; Nuclear mitogen- and stress-activated





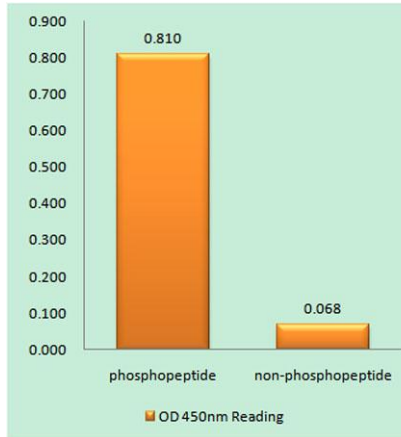
Background

protein kinase 1; RSK-like protein kinase; RSKL
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



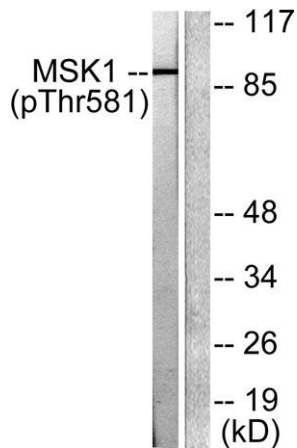
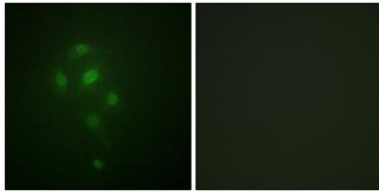


abundant in lung, kidney and liver.,



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.

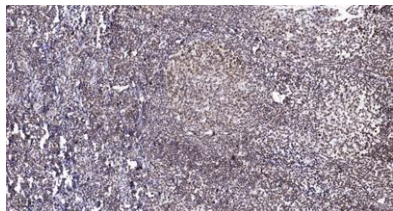


Western blot analysis of lysates from RAW264.7 cells treated with UV 5', using MSK1 (Phospho-Thr581) Antibody. The lane on the right is blocked with the phospho peptide.





ELK Biotechnology



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).



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