

**MSK1 (phospho Ser212) rabbit pAb****Cat#: orb770874 (Manual)**

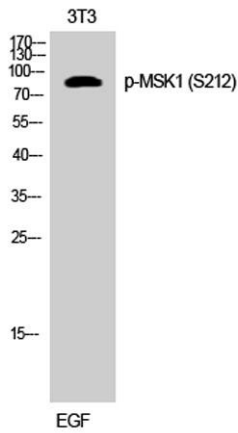
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<b>Product Name</b>	MSK1 (phospho Ser212) rabbit pAb
<b>Host species</b>	Rabbit
<b>Applications</b>	WB;IHC;IF;ELISA
<b>Species Cross-Reactivity</b>	Human;Mouse
<b>Recommended dilutions</b>	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/40000. Not yet tested in other applications.
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human MSK1 around the phosphorylation site of Ser212. AA range:181-230
<b>Specificity</b>	Phospho-MSK1 (S212) Polyclonal Antibody detects endogenous levels of MSK1 protein only when phosphorylated at S212.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide..
<b>Storage</b>	Store at -20°C. Avoid repeated freeze-thaw cycles.
<b>Protein Name</b>	Ribosomal protein S6 kinase alpha-5
<b>Gene Name</b>	RPS6KA5
<b>Cellular localization</b>	Nucleus. Cytoplasm. Predominantly nuclear. Exported into cytoplasm in response to glucocorticoid.
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Clonality</b>	Polyclonal

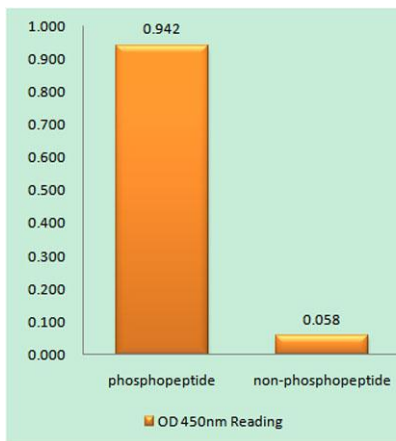
<b>Concentration</b>	1 mg/ml
<b>Observed band</b>	90kD
<b>Human Gene ID</b>	9252
<b>Human Swiss-Prot Number</b>	O75582
<b>Alternative Names</b>	RPS6KA5; MSK1; Ribosomal protein S6 kinase alpha-5; S6K-alpha-5; 90 kDa ribosomal protein S6 kinase 5; Nuclear mitogen- and stress-activated protein kinase 1; RSK-like protein kinase; RSKL

**Background**

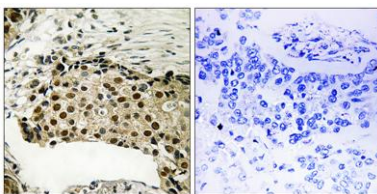
catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Magnesium.,enzyme regulation:Appears to be activated by multiple phosphorylations on threonine and serine residues. ERK1/2 and MAPK14/p38-alpha may play a role in this process.,function:Serine/threonine kinase required for the mitogen 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.,



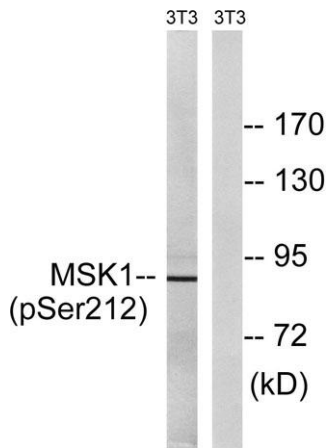
**Western Blot analysis of 3T3 cells using Phospho-MSK1 (S212) Polyclonal Antibody diluted at 1:1000**



**Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using MSK1 (Phospho-Ser212) Antibody**



**Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using MSK1 (Phospho-Ser212) Antibody. The picture on the right is blocked with the phospho peptide.**



Western blot analysis of lysates from NIH/3T3 cells treated with EGF 200ng/ml 5', using MSK1 (Phospho-Ser212) Antibody. The lane on the right is blocked with the phospho peptide.