


Anti-MSK1 antibody ab99412

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Overview

Product name	Anti-MSK1 antibody
Description	Rabbit polyclonal to MSK1
Host species	Rabbit
Tested applications	Suitable for: WB, IP, IHC-P
Species reactivity	Reacts with: Human Predicted to work with: Chimpanzee, Rhesus monkey, Gorilla, Orangutan 
Immunogen	Synthetic peptide, corresponding to a region between residues 752 and 802 of Human MSK1 (NP_004746.2).
Positive control	HeLa or 293T cell lysate
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 6.8 Preservative: 0.09% Sodium azide Constituents: 0.1% BSA, Tris buffered saline
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab99412 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/2000 - 1/10000. Predicted molecular weight: 90 kDa.
IP		Use at 2-5 µg/mg of lysate.
IHC-P		1/100 - 1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target**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).

Tissue specificity

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

Sequence similarities

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.

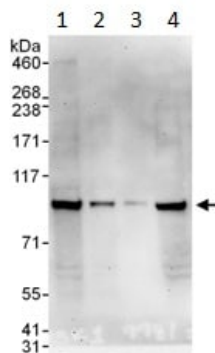
Post-translational modifications

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.

Cellular localization

Nucleus. Cytoplasm. Predominantly nuclear. Partially cytoplasmic.

Images



Western blot - Anti-MSK1 antibody (ab99412)

All lanes : Anti-MSK1 antibody (ab99412) at 0.04 µg/ml

Lane 1 : HeLa whole cell lysate at 50 µg

Lane 2 : HeLa whole cell lysate at 15 µg

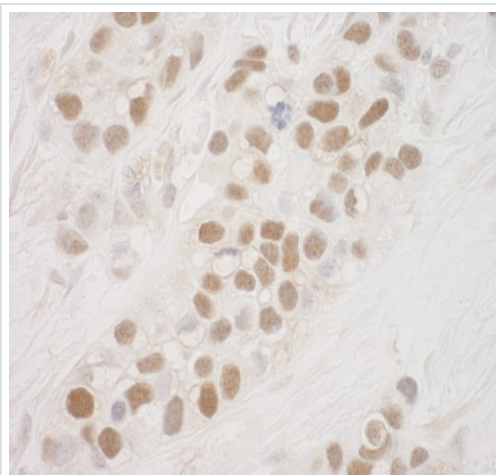
Lane 3 : HeLa whole cell lysate at 5 µg

Lane 4 : 293T cell lysate at 50 µg

Developed using the ECL technique.

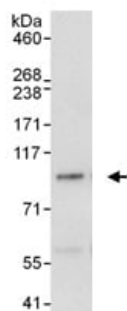
Predicted band size: 90 kDa

Exposure time: 3 minutes



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MSK1 antibody (ab99412)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast carcinoma tissue labelling MSK1 with **ab99421** at 1/200 (1µg/mg). Detection: DAB.



Immunoprecipitation - Anti-MSK1 antibody (ab99412)

Detection of MSK1 in immunoprecipitates of HeLa whole cell lysate (1 mg lysate for IP, 20% of IP loaded on gel) using ab99412 at 3 µg/mg lysate for IP, and at 1 µg/ml for the subsequent western blot.

Detection: chemiluminescence with exposure time of 10 seconds.

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