

Mouse Rps6ka5 Blocking Peptide (C-term)
Synthetic peptide
Catalog # BP20901c**Specification****Mouse Rps6ka5 Blocking Peptide (C-term) -
Product Information**Primary Accession [Q8C050](#)**Mouse Rps6ka5 Blocking Peptide (C-term) -
Additional Information****Gene ID** 73086**Other Names**

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, RLSK, Rps6ka5, Msk1

Target/Specificity

The synthetic peptide sequence is selected
from aa 850-863 of HUMAN Rps6ka5

Format

Peptides are lyophilized in a solid powder
format. Peptides can be reconstituted in
solution using the appropriate buffer as
needed.

Storage

Maintain refrigerated at 2-8°C for up to 6
months. For long term storage store at
-20°C.

Precautions

This product is for research use only. Not
for use in diagnostic or therapeutic
procedures.

**Mouse Rps6ka5 Blocking Peptide (C-term) -
Protein Information****Name** Rps6ka5**Synonyms** Msk1**Function**

Serine/threonine-protein kinase that is

**Mouse Rps6ka5 Blocking Peptide (C-term)
- Background**

Serine/threonine-protein kinase that is
required for the mitogen or stress-induced
phosphorylation of the transcription factors
CREB1 and ATF1 and for the regulation of the
transcription factors RELA, STAT3 and
ETV1/ER81, and that contributes to gene
activation by histone phosphorylation and
functions in the regulation of inflammatory
genes. Phosphorylates CREB1 and ATF1 in
response to mitogenic or stress stimuli such as
UV-C irradiation, epidermal growth factor (EGF)
and anisomycin. Plays an essential role in the
control of RELA transcriptional activity in
response to TNF and upon glucocorticoid,
associates in the cytoplasm with the
glucocorticoid receptor NR3C1 and contributes
to RELA inhibition and repression of
inflammatory gene expression. In skeletal
myoblasts is required for phosphorylation of
RELA at 'Ser-276' during oxidative stress. In
erythropoietin-stimulated cells, is necessary for
the 'Ser-727' phosphorylation of STAT3 and
regulation of its transcriptional potential.
Phosphorylates ETV1/ER81 at 'Ser-191' and
'Ser-216', and thereby regulates its ability to
stimulate transcription, which may be
important during development and breast
tumor formation. Directly represses
transcription via phosphorylation of 'Ser-1' of
histone H2A. Phosphorylates 'Ser-10' of histone
H3 in response to mitogenics, stress stimuli
and 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 1 (HMG1/HMG14). In
lipopolysaccharide-stimulated primary
macrophages, acts downstream of the Toll-like
receptor TLR4 to limit the production of pro-
inflammatory cytokines. Functions probably by
inducing transcription of the MAP kinase
phosphatase DUSP1 and the anti-
inflammatory cytokine interleukin 10 (IL10), via

required for the mitogen or stress-induced phosphorylation of the transcription factors CREB1 and ATF1 and for the regulation of the transcription factors RELA, STAT3 and ETV1/ER81, and that contributes to gene activation by histone phosphorylation and functions in the regulation of inflammatory genes (By similarity)(PubMed:11553624, PubMed:11909979, PubMed:16806820). Phosphorylates CREB1 and ATF1 in response to mitogenic or stress stimuli such as UV-C irradiation, epidermal growth factor (EGF) and anisomycin (PubMed:11909979). Plays an essential role in the control of RELA transcriptional activity in response to TNF and upon glucocorticoid, associates in the cytoplasm with the glucocorticoid receptor NR3C1 and contributes to RELA inhibition and repression of inflammatory gene expression (PubMed:12628924, PubMed:16806820). In skeletal myoblasts is required for phosphorylation of RELA at 'Ser-276' during oxidative stress (PubMed:12628924). In erythropoietin-stimulated cells, is necessary for the 'Ser-727' phosphorylation of STAT3 and regulation of its transcriptional potential (PubMed:11553624). Phosphorylates ETV1/ER81 at 'Ser-191' and 'Ser-216', and thereby regulates its ability to stimulate transcription, which may be important during development and breast tumor formation (By similarity). Directly represses transcription via phosphorylation of 'Ser-1' of histone H2A (By similarity). Phosphorylates 'Ser-10' of histone H3 in response to mitogenics, stress stimuli and EGF, which results in the transcriptional activation of several immediate early genes, including proto-oncogenes c-fos/FOS

CREB1 and ATF1 transcription factors. Plays a role in neuronal cell death by mediating the downstream effects of excitotoxic injury.

Mouse Rps6ka5 Blocking Peptide (C-term) **- References**

Zhou G.,et al.Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases.
Carninci P.,et al.Science 309:1559-1563(2005).
Zhong S.,et al.J. Biol. Chem. 276:33213-33219(2001).
Zhang Y.,et al.J. Biol. Chem. 276:42534-42542(2001).
Wiggin G.R.,et al.Mol. Cell. Biol. 22:2871-2881(2002).

and c-jun/JUN (PubMed:15870105, PubMed:16517600). May also phosphorylate 'Ser-28' of histone H3 (PubMed:11441012, PubMed:15870105). Mediates the mitogen- and stress-induced phosphorylation of high mobility group protein 1 (HMG1/HMG14) (By similarity). In lipopolysaccharide- stimulated primary macrophages, acts downstream of the Toll-like receptor TLR4 to limit the production of pro-inflammatory cytokines (PubMed:18690222). Functions probably by inducing transcription of the MAP kinase phosphatase DUSP1 and the anti-inflammatory cytokine interleukin 10 (IL10), via CREB1 and ATF1 transcription factors (PubMed:18690222). Plays a role in neuronal cell death by mediating the downstream effects of excitotoxic injury (PubMed:12807421). Phosphorylates TRIM7 at 'Ser-106' in response to growth factor signaling via the MEK/ERK pathway, thereby stimulating its ubiquitin ligase activity (By similarity).

Cellular Location

Nucleus.

Mouse Rps6ka5 Blocking Peptide (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)