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MNK2 (MKNK2) Antibody (N-term) Blocking peptide

Synthetic peptide
Catalog # BP7058a

Specification

MNK2 (MKNK2) Antibody (N-term) Blocking peptide - Product Information

Primary Accession Q9HBH9

MNK2 (MKNK2) Antibody (N-term) Blocking peptide - Additional Information

Gene ID 2872

Other Names
MAP kinase-interacting serine/threonine-protein kinase 2, MAP kinase signal-integrating kinase 2, MAPK signal-integrating kinase 2, Mnk2, MKNK2, GPRK7, MNK2

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7058a was selected from the N-term region of human MKNK2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

MNK2 (MKNK2) Antibody (N-term) Blocking peptide - Protein Information

Name MKNK2

Synonyms GPRK7, MNK2

Function
Serine/threonine-protein kinase that phosphorylates SFPQ/PSF, HNRNPA1 and EIF4E. May play a role in the response to environmental stress and cytokines. Appears to regulate translation by phosphorylating EIF4E, thus increasing the affinity of this protein for the 7-methylguanosine-containing mRNA cap. Required for mediating PP2A- inhibition-induced EIF4E phosphorylation. Triggers EIF4E shuttling from cytoplasm to nucleus. Isoform 1 displays a high basal kinase activity, but isoform 2 exhibits a very low kinase activity. Acts as a mediator of the suppressive effects of IFNgamma on hematopoiesis. Negative regulator for signals that control generation of arsenic trioxide As(2)O(3)-dependent apoptosis and anti-leukemic responses. Involved in anti-apoptotic signaling in response to serum withdrawal.

Cellular Location
[Isoform 2]: Nucleus, PML body.

Tissue Location
Ubiquitously expressed in all tissues examined. Isoform 2 is expressed at higher levels in the ovary than is isoform 1

MNK2 (MKNK2) Antibody (N-term) Blocking peptide - Protocols

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

- Blocking Peptides

MNK2 (MKNK2) Antibody (N-term) Blocking peptide - Images

MNK2 (MKNK2) Antibody (N-term) Blocking peptide - Background

MAP kinase-interacting kinase 1 (Mnk1) and Mnk2, members of the Ser/Thr protein kinase family, bind tightly to the growth factor-regulated MAP kinases, Erk1 and Erk2. Erk and p38 phosphorylate MNK1 and Mnk2, which stimulates their in vitro kinase activity toward a substrate, eukaryotic initiation factor-4E (eIF-4E). Overexpression of Mnk2 results in increased phosphorylation of endogenous eIF-4E, showing that it can act as an eIF-4E kinase in vivo. Mnk2 may play a role in the response to environmental stress and cytokines. This ubiquitiously expressed protein appears to regulate transcription by phosphorylating eIF-4E, thus increasing the affinity of this protein for the 7-methylguanosine-containing mRNA cap. Expression of active mutants of MNK1 and MNK2 in 293 cells diminishes cap-dependent translation relative to cap-independent translation in a transient reporter assay. Human Mnk2 is homologous to murine Mnk2 (approximately 94% identical) and human Mnk1 (71% identical). In vitro phosphorylation studies show that Mnk2 is a significantly better substrate than Mnk1 for extracellular signal-regulated kinase 2 (Erk2), p38MAPKalpha, and p38MAPKbeta. Mnk2 has also been shown to interact with the C-terminal regions of eIF-4G1 and eIF-4G2.