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MNK2 (MKNK2) Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7058a

Product Information

Application	WB, E
Primary Accession	Q9HBH9
Other Accession	Q5U2N4, Q8CDB0
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB5445
Calculated MW	51875
Antigen Region	70-100

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	This MNK2 (MKNK2) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 70-100 amino acids from the N-terminal region of human MNK2 (MKNK2).
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MNK2 (MKNK2) Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

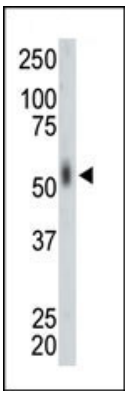
Name	MKNK2
Synonyms	GPRK7, MNK2

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

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.

Images



The anti-MKNK2 Pab (Cat. #AP7058a) is used in Western blot to detect MKNK2 in mouse lung tissue lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.