Store at -20°C

Mnk1 (C4C1) Rabbit mAb

#2195

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Entrez-Gene ID #8569
UniProt ID #Q9BUB5

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W Endogenous	H, M	50 kDa	Rabbit IgG**

Background: Mitogen-activated protein kinases (MAPKs) are activated by various extracellular signals and play crucial roles in regulating cell proliferation, differentiation, survival, and apoptosis (1). MAPK-interacting kinases (Mnks or MKNKs) are direct downstream substrates of MAPK and were first discovered independently by the work of Fukunaga and Hunter (2) and Waskiewicz and Cooper (3). There are 2 Mnks in human, termed Mnk1 and Mnk2. Both Mnks possess a MAPK-binding domain that allows them to bind to and then to be phosphorylated by Erk and p38. The phosphorylation in the T-loop of Mnks stimulates their *in vitro* kinase activity toward a substrate, eukaryotic initiation factor-4E (eIF4E) (2,3). eIF4E is a key component of the translational machinery mediating the initiation of translation, but how phosphorylation of eIF4E regulates translation initiation is still under investigation (4).

Specificity/Sensitivity: Mnk1 (C4C1) Rabbit mAb detects endogenous levels of total Mnk1 protein.

Source/Purification: Mnk1 (C4C1) Rabbit mAb is produced by immunizing rabbits with a synthetic peptide corresponding to the sequence of human Mnk1.

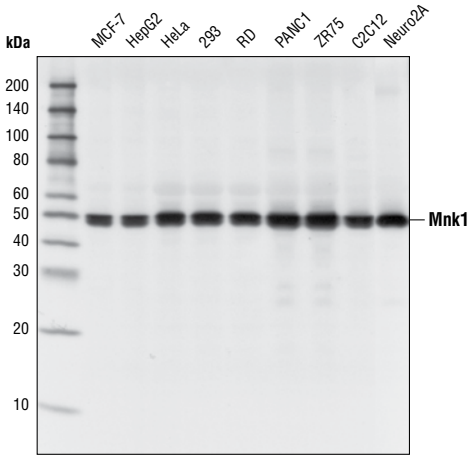
Background References:

(1) Chang, L. and Karin, M. (2001) *Nature* 410, 37-40.

(2) Fukunaga, R. and Hunter, T. (1997) *EMBO J.* 16, 1921-1933.

(3) Waskiewicz, A.J. et al. (1997) *EMBO J.* 16, 1909-1920.

(4) Scheper, G.C. and Proud, C.G. (2002) *Eur. J. Biochem.* 269, 5350-5359.



Western blot analysis of extracts from various cell lines using Mnk1 (C4C1) Rabbit mAb.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

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