Mnk1 (h3): 293 Lysate: sc-177561



The Power to Question

BACKGROUND

The MAPKAP kinases (for MAP kinase activated protein kinases) are a group of MAP kinase substrates which are themselves kinases. In response to activation, the MAP kinases phosphorylate downstream components on a consensus Pro-X-Ser/Thr-Pro motif. Several kinases that contain this motif have been identifed and serve as substrates for the ERK and p38 MAP kinases. These include the serine/threonine kinases Rsk-1 (also designated MAPKAP Kinase-1), Rsk-2 and Rsk-3, which are phosphorylated by ERK 1 and ERK 2. Similarly p38 phosphorylates and activates the serine/threonine kinases MAPKAP Kinase-2 and MAPKAP Kinase-3 (also designated 3pK). The serine/threonine kinases Mnk1 and Mnk2 are substrates for both ERK and p38 MAP kinases.

REFERENCES

- Sturgill, T.W., et al. 1988. Insulin-stimulated MAP-2 kinase phosphorylates and activates Ribosomal Protein S6 Kinase II. Nature 334: 715-718.
- Stokoe, D., et al. 1992. MAPKAP Kinase-2: a novel protein kinase activated by mitogen-activated protein kinase. EMBO J. 11: 3985-3994.
- 3. Davis, R.J. 1993. The mitogen-activated protein kinase signal transduction pathway. J. Biol. Chem. 268: 14553-14556.
- 4. Zhao, Y., et al. 1995. Rsk-3 encodes a novel pp90Rsk isoform with a unique N-terminal sequence: growth factor stimulated kinase function and nuclear translocation. Mol. Cell. Biol. 15: 4353-4363.
- McLaughlin, M.M., et al. 1996. Identification of mitogen-activated protein (MAP) kinase-activated protein kinase-3, a novel substrate of CSBP p38 MAP kinase. J. Biol. Chem. 271: 8488-8492.
- 6. Sithanandam, G., et al. 1996. 3pK, a new mitogen-activated protein kinase-activated protein kinase located in the small cell lung cancer tumor suppressor gene region. Mol. Cell. Biol. 16: 868-876.
- 7. Fukunaga, R., et al. 1997. Mnk1, a new MAP kinase-activated protein kinase, isolated by a novel expression screening method for identifying protein kinase substrates. EMBO J. 16: 1921-1933.
- Waskiewicz, A.J., et al. 1997. Mitogen-activated protein kinases activate the serine/threonine kinases Mnk1 and Mnk2. EMBO J. 16: 1090-1920.

CHROMOSOMAL LOCATION

Genetic locus: MKNK1 (human) mapping to 1p33.

PRODUCT

Mnk1 (h3): 293 Lysate represents a lysate of human Mnk1 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

Mnk1 (h3): 293 Lysate is suitable as a Western Blotting positive control for human reactive Mnk1 antibodies. Recommended use: $10-20 \mu l$ per lane.

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com