SANTA CRUZ BIOTECHNOLOGY, INC.

# Mnk1 (H-55): sc-28780

SANTA CRUZ BIOTECHNOLOGY

*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 ERK1 and ERK2. 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


1. Sturgill, T.W., et al. 1988. Insulin-stimulated MAP2 kinase phosphorylates and activates ribosomal protein S6 kinase II. Nature 334: 715-718.
2. 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.


## CHROMOSOMAL LOCATION

Genetic locus: MKNK1 (human) mapping to 1p33; Mknk1 (mouse) mapping to 4 D1.

## SOURCE

Mnk1 (H-55) is a rabbit polyclonal antibody raised against amino acids 411-465 mapping at the C-terminus of Mnk1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Mnk1 (H-55) is recommended for detection of Mnk1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Mnk1 siRNA (h): sc-39106, Mnk1 siRNA (m): sc-39107, Mnk1 shRNA Plasmid (h): sc-39106-SH, Mnk1 shRNA Plasmid (m): sc-39107-SH, Mnk1 shRNA (h) Lentiviral Particles: sc-39106-V and Mnk1 shRNA (m) Lentiviral Particles: sc-39107-V.

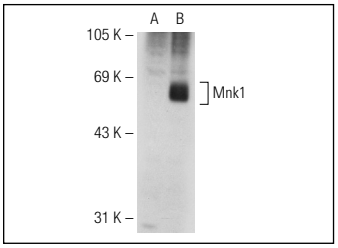
Molecular Weight of Mnk1: 52 kDa.

Positive Controls: Mnk1 (h): 293T Lysate: sc-171267, HeLa whole cell lysate: sc-2200 or 3611-RF whole cell lysate: sc-2215.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA




Mnk1 (H-55): sc-28780. Western blot analysis of Mnk1 expression in non-transfected: sc-117752 (**A**) and human Mnk1 transfected: sc-171267 (**B**) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS


1. Mayhew, D.L., et al. 2011. Eukaryotic initiation factor 2B ε induces cap-dependent translation and skeletal muscle hypertrophy. J. Physiol. 589: 3023-3037.


## STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

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

## PROTOCOLS

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