SANTA CRUZ BIOTECHNOLOGY, INC.

3pK (H-50): sc-28782

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 ERK 1 and ERK 2. Similarly, p38 phosphorylates and activates the serine/threonine kinases MAPKAPK-2 and MAPKAPK-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 MAP-2 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.

CHROMOSOMAL LOCATION

Genetic locus: MAPKAPK3 (human) mapping to 3p21.2; Mapkapk3 (mouse) mapping to 9 F1.

SOURCE

3pK (H-50) is a rabbit polyclonal antibody raised against amino acids 1-50 mapping at the N-terminus of 3pK 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.

RESEARCH USE

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

APPLICATIONS

3pK (H-50) is recommended for detection of 3pK 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 3pK siRNA (h): sc-39105, 3pK siRNA (m): sc-108939, 3pK shRNA Plasmid (h): sc-39105-SH, 3pK shRNA Plasmid (m): sc-108939-SH, 3pK shRNA (h) Lentiviral Particles: sc-39105-V and 3pK shRNA (m) Lentiviral Particles: sc-108939-V.

Molecular Weight (predicted) of 3pK: 43 kDa.

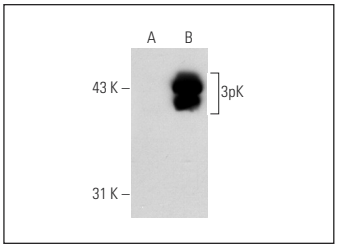
Molecular Weight (observed) of 3pK: 41 kDa.

Positive Controls: 3pK (h): 293T Lysate: sc-158199, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

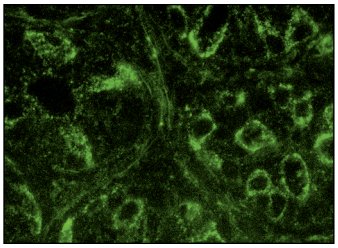
RECOMMENDED SECONDARY REAGENTS

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



3pK (H-50): sc-28782. Western blot analysis of 3pK expression in non-transfected: sc-117752 (**A**) and human 3pK transfected: sc-158199 (**B**) 293T whole cell lysates.



3pK (H-50): sc-28782. Immunofluorescence staining of normal mouse intestine frozen section showing perinuclear staining.

STORAGE

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

PROTOCOLS

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

MONOS Satisfaction Guaranteed

Try **3pK (C-4): sc-365148** or **3pK (B-2): sc-376626**, our highly recommended monoclonal alternatives to 3pK (H-50).