SANTA CRUZ BIOTECHNOLOGY, INC.

MLK4 (H-63): sc-135157

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Mixed lineage kinases are a family of protein kinases sharing two leucine zipper-like motifs, which are known to mediate protein dimerization, and a kinase domain whose primary structure is similar to both the tyrosine-specific and the serine/threonine-specific kinase classes. Members of the mixed-lineage kinase (MLK) family include MLK1, MLK2, MLK3, MLK4, MELK, LZK and dual leucine zipper kinase, also designated DLK. MLKs are expressed in neuronal cells, where they are likely to interact between Rac 1/Cdc42, MKK4 and MKK7 in death signaling.

REFERENCES

1. Hirai, S., et al. 1997. MST/MLK2, a member of the mixed lineage kinase family, directly phosphorylates and activates SEK1, an activator of c-Jun N-terminal kinase/stress-activated protein kinase. J. Biol. Chem. 272: 15167-15173.
2. Nagata, K., et al. 1998. The MAP kinase kinase kinase MLK2 co-localizes with activated JNK along microtubules and associates with kinesin superfamily motor KIF3. EMBO J. 17: 149-158.

CHROMOSOMAL LOCATION

Genetic locus: KIAA1804 (human) mapping to 1q42.2; BC021891 (mouse) mapping to 8 E2.

SOURCE

MLK4 (H-63) is a rabbit polyclonal antibody raised against amino acids 375-437 mapping within an internal region of MLK4 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

MLK4 (H-63) is recommended for detection of MLK4 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).

MLK4 (H-63) is also recommended for detection of MLK4 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for MLK4 siRNA (h): sc-61061, MLK4 siRNA (m): sc-61062, MLK4 shRNA Plasmid (h): sc-61061-SH, MLK4 shRNA Plasmid (m): sc-61062-SH, MLK4 shRNA (h) Lentiviral Particles: sc-61061-V and MLK4 shRNA (m) Lentiviral Particles: sc-61062-V.

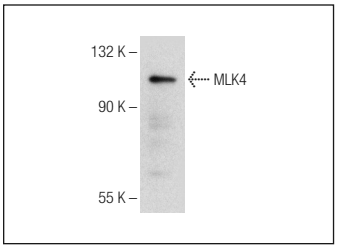
Molecular Weight of MLK4: 114 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

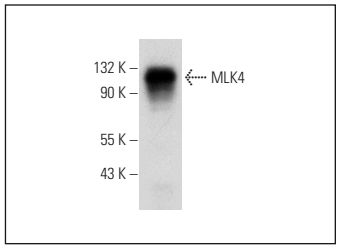
RECOMMENDED SECONDARY REAGENTS

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



MLK4 (H-63): sc-135157. Western blot analysis of MLK4 expression in HeLa whole cell lysate.



MLK4 (H-63): sc-135157. Western blot analysis of MLK4 expression in Jurkat whole cell lysate.

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.