

kpm (H-14): sc-23067

BACKGROUND

The human protein kinase kpm belongs to a subfamily of serine/threonine protein kinases, which includes the *Drosophila* tumor suppressor protein warts/lats (large tumor suppressor). Among these, kpm is most homologous to, but distinct from, the human homolog LATS1. Human LATS1 binds to Cdc2 in early mitosis and appears to negatively regulate the kinase activity of Cdc2. The kpm protein is expressed relatively constantly throughout the cell cycle and undergoes significant phosphorylation at mitotic phase. Kpm plays a role in cell cycle progression during mitosis, and its deletion or dysfunction might be involved in certain types of human cancers.

REFERENCES

1. Johnston, L.H., et al. 1990. The product of the *Saccharomyces cerevisiae* cell cycle gene DBF2 has homology with protein kinases and is periodically expressed in the cell cycle. *Mol. Cell. Biol.* 10: 1358-1366.
2. Yarden, O., et al. 1992. cot-1, a gene required for hyphal elongation in *Neurospora crassa*, encodes a protein kinase. *EMBO J.* 11: 2159-2166.
3. Toyn, J.H. and Johnston, L.H. 1994. The Dbf2 and Dbf20 protein kinases of budding yeast are activated after the metaphase to anaphase cell cycle transition. *EMBO J.* 13: 1103-1113.

CHROMOSOMAL LOCATION

Genetic locus: LATS2 (human) mapping to 13q12.11; Lats2 (mouse) mapping to 14 C3.

SOURCE

kpm (H-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of kpm of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-23067 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

kpm (H-14) is recommended for detection of kpm 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 kpm siRNA (h): sc-37444, kpm siRNA (m): sc-37445, kpm shRNA Plasmid (h): sc-37444-SH, kpm shRNA Plasmid (m): sc-37445-SH, kpm shRNA (h) Lentiviral Particles: sc-37444-V and kpm shRNA (m) Lentiviral Particles: sc-37445-V.

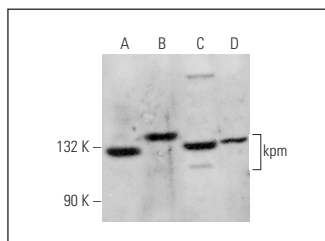
Molecular Weight of kpm: 150 kDa.

Positive Controls: mouse lung extract: sc-2390, A549 cell lysate: sc-2413 or rat brain extract: sc-2392.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



kpm (H-14): sc-23067. Western blot analysis of kpm expression in mouse lung (A) and rat brain (B) tissue extracts and SK-OV-3 (C) and A549 (D) whole cell lysates.

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.

MONOS
Satisfaction
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Try **kpm (C-2): sc-515579**, our highly recommended monoclonal alternative to kpm (H-14).