SANTA CRUZ BIOTECHNOLOGY, INC.

kpm (C-2): sc-515579

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.

CHROMOSOMAL LOCATION

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

SOURCE

kpm (C-2) is a mouse monoclonal antibody raised against amino acids 141-406 mapping within an internal region of kpm of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

kpm (C-2) is available conjugated to agarose (sc-515579 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515579 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515579 PE), fluorescein (sc-515579 FITC), Alexa Fluor® 488 (sc-515579 AF488), Alexa Fluor® 546 (sc-515579 AF546), Alexa Fluor® 594 (sc-515579 AF594) or Alexa Fluor® 647 (sc-515579 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515579 AF680) or Alexa Fluor® 790 (sc-515579 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

kpm (C-2) is recommended for detection of kpm of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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.

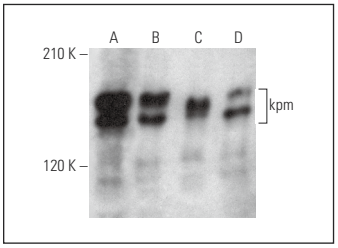
Molecular Weight of kpm: 150 kDa.

Positive Controls: NCI-H1299 whole cell lysate: sc-364234, HeLa whole cell lysate: sc-2200 or SK-OV-3 whole cell lysate: sc-364229.

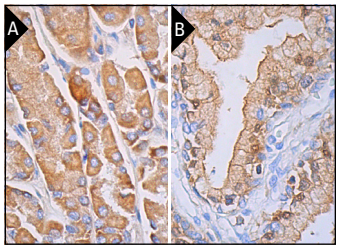
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



kpm (C-2): sc-515579. Western blot analysis of kpm expression in NCI-H1299 (**A**), HeLa (**B**), SK-OV-3 (**C**) and WI-38 (**D**) whole cell lysates.



kpm (C-2): sc-515579. Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic staining of glandular cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human prostate tissue showing cytoplasmic and nuclear staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Bainbridge, A., et al. 2020. IKBKE activity enhances AR levels in advanced prostate cancer via modulation of the Hippo pathway. Nucleic Acids Res. 48: 5366-5382.
2. Wehling, L., et al. 2022. Spatial modeling reveals nuclear phosphorylation and subcellular shuttling of YAP upon drug-induced liver injury. Elife 11: e78540.

RESEARCH USE

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

PROTOCOLS

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