SANTA CRUZ BIOTECHNOLOGY, INC.

PLEK2 (h2): 293T Lysate: sc-172735

BACKGROUND

PLEK2 (pleckstrin 2) is a 353 amino acid peripheral membrane protein that contains both an N- and a C-terminal PH domain, as well as an intervening DEP domain. Although highly homologous to Pleckstrin, which contains three phosphorylation sites and is an efficient substrate of PKC, PLEK2 contains a single phosphorylation site and is an inefficient PKC substrate. Localizing to cytoskeleton, PLEK2 is ubiquitously expressed, with highest expression in thymus, prostate, testis, ovary, small bowel and large bowel. When bound to the cell membrane, PLEK2 contributes to lamellipodia formation, with overexpression potentially leading to large lamellipodia and peripheral ruffle formation. PLEK2 targets ligands in cell membranes and induces actin rearrangement. PLEK2 likely redistributes actin within cells and may play a role in orchestrating cytoskeletal arrangement. The gene that encodes PLEK2 maps to human chromosome 14q23.3.

REFERENCES

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3. Lemmon, M.A., Ferguson, K.M. and Abrams, C.S. 2002. Pleckstrin homology domains and the cytoskeleton. FEBS Lett. 513: 71-76.
4. Inazu, T., Kuroiwa, A., Matsuda, Y. and Miyamoto, K. 2005. Cloning, expression and chromosomal assignment of human pleckstrin 2. Mol. Biol. Rep. 32: 35-40.
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CHROMOSOMAL LOCATION

Genetic locus: PLEK2 (human) mapping to 14q23.3.

PRODUCT

PLEK2 (h2): 293T Lysate represents a lysate of human PLEK2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

ARESEARCH USE

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

PPLICATIONS

PLEK2 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive PLEK2 antibodies. Recommended use: 10-20 µl per lane.

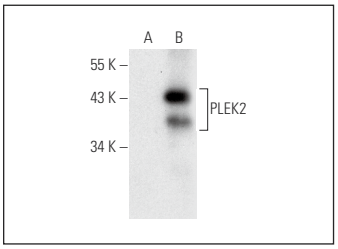
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PLEK2 (E-11): sc-393831 is recommended as a positive control antibody for Western Blot analysis of enhanced human PLEK2 expression in PLEK2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



PLEK2 (E-11): sc-393831. Western blot analysis of PLEK2 expression in non-transfected: sc-117752 (**A**) and human PLEK2 transfected: sc-172735 (**B**) 293T whole cell lysates.

PROTOCOLS

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