

plakophilin 3 (h): 293T Lysate: sc-173022

BACKGROUND

plakophilins 1, 2, 3 and 4 (PKP1-4) influence development and participate in linking cadherins to cytoskeletal intermediate filaments. plakophilins 1-4 contain arm-repeat (armadillo) domains and localize to nuclei and cell desmosomes (cell-cell junctions found in suprabasal layers of stratifying epithelia that undergo mechanical stress). plakophilin 3 (PKP3) is a 797 amino acid protein that contains eight arm-repeats and belongs to the β -catenin family. Encoded by a gene that maps to human chromosome 11p15.5, plakophilin 3 localizes to desmosomes of most simple and nearly all stratified epithelia, as well as cell lines derived therefrom, with the exception of hepatocytes and hepatocellular carcinoma cells. plakophilin 3 plays a role in both desmosome-dependent adhesion and signaling pathways, and may play a role in junctional plaques. Up-regulation of plakophilin 3 is a frequent and important feature of lung carcinogenesis, implicating plakophilin 3 as a candidate prognostic marker and therapeutic target for lung cancer.

REFERENCES

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- Furukawa, C., et al. 2005. Plakophilin 3 oncogene as prognostic marker and therapeutic target for lung cancer. *Cancer Res.* 65: 7102-7110.
- Hofmann, I., et al. 2006. Identification of the junctional plaque protein plakophilin 3 in cytoplasmic particles containing RNA-binding proteins and the recruitment of plakophilins 1 and 3 to stress granules. *Mol. Biol. Cell* 17: 1388-1398.
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- Aigner, K., et al. 2007. The transcription factor ZEB1 (δ EF1) represses Plakophilin 3 during human cancer progression. *FEBS Lett.* 581: 1617-1624.

CHROMOSOMAL LOCATION

Genetic locus: PKP3 (human) mapping to 11p15.5.

PRODUCT

plakophilin 3 (h): 293T Lysate represents a lysate of human plakophilin 3 transfected 293T cells and is provided as 100 μ g protein in 200 μ l 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.

APPLICATIONS

plakophilin 3 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive plakophilin 3 antibodies. Recommended use: 10-20 μ l per lane.

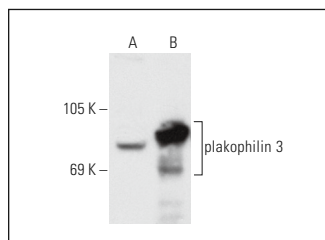
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

plakophilin 3 (4A82): sc-71901 is recommended as a positive control antibody for Western Blot analysis of enhanced human plakophilin 3 expression in plakophilin 3 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

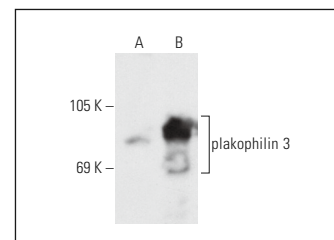
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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



plakophilin 3 (4A82): sc-71901. Western blot analysis of plakophilin 3 expression in non-transfected: sc-117752 (A) and human plakophilin 3 transfected: sc-173022 (B) 293T whole cell lysates.



plakophilin 3 (23E3/4): sc-59976. Western blot analysis of plakophilin 3 expression in non-transfected: sc-117752 (A) and human plakophilin 3 transfected: sc-173022 (B) 293T whole cell lysates.

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.