SANTA CRUZ BIOTECHNOLOGY, INC.

PRCC (D-3): sc-390527

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

PRCC (papillary renal cell carcinoma) is a disorder which is marked by multiple tumors of varying size present in both kidneys of affected family members. The specific chromosomal translocation t(X;1)(p11.2;q21.2) observed in human PRCC results in the fusion of a PRCC gene at 1q23.1, to the TFE3 gene at Xp11.2. The translocation is predicted to result in the fusion of the amino-terminal region of the PRCC protein, which includes a proline-rich domain, to the entire TFE3 protein. PRCC is ubiquitously expressed in normal adult and fetal tissues and encodes a putative protein of 491 amino acids with a relatively high content of prolines. PRCC colocalizes within the nucleus with Sm pre-mRNA splicing factors and associates with a variety of pre-mRNA splicing factors. PRCC, usually a low-grade neoplasm, may be associated with cystic degeneration, hemorrhage and presence of abundant hemosiderin-laden macrophages (HLM).

REFERENCES

1. Sidhar, S.K., et al. 1996. The t(X;1)(p11.2;q21.2) translocation in papillary renal cell carcinoma fuses a novel gene PRCC to the TFE3 transcription factor gene. Hum. Mol. Genet. 5: 1333-1338.
2. Weterman, M.A., et al. 1996. Fusion of the transcription factor TFE3 gene to a novel gene, PRCC, in t(X;1)(p11;q21)-positive papillary renal cell carcinomas. Proc. Natl. Acad. Sci. USA 93: 15294-15298.
3. Skalsky, Y.M., et al. 2001. PRCC, the commonest TFE3 fusion partner in papillary renal carcinoma is associated with pre-mRNA splicing factors. Oncogene 20: 178-187.

CHROMOSOMAL LOCATION

Genetic locus: PRCC (human) mapping to 1q23.1; Prcc (mouse) mapping to 3 F1.

SOURCE

PRCC (D-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 196-224 of PRCC of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PRCC (D-3) is available conjugated to agarose (sc-390527 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390527 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390527 PE), fluorescein (sc-390527 FITC), Alexa Fluor® 488 (sc-390527 AF488), Alexa Fluor® 546 (sc-390527 AF546), Alexa Fluor® 594 (sc-390527 AF594) or Alexa Fluor® 647 (sc-390527 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390527 AF680) or Alexa Fluor® 790 (sc-390527 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390527 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

PRCC (D-3) is recommended for detection of PRCC 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PRCC siRNA (h): sc-40867, PRCC siRNA (m): sc-40868, PRCC shRNA Plasmid (h): sc-40867-SH, PRCC shRNA Plasmid (m): sc-40868-SH, PRCC shRNA (h) Lentiviral Particles: sc-40867-V and PRCC shRNA (m) Lentiviral Particles: sc-40868-V.

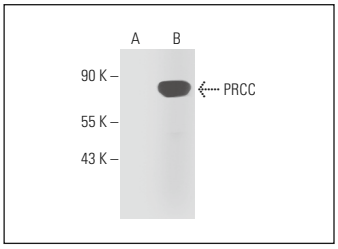
Molecular Weight of PRCC: 66 kDa.

Positive Controls: PRCC (h): 293 Lysate: sc-111014.

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.

DATA



PRCC (D-3): sc-390527. Western blot analysis of PRCC expression in non-transfected: sc-110760 (**A**) and human PRCC transfected: sc-111014 (**B**) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

1. Jang, S.H., et al. 2019. Potential oncogenic role of the papillary renal cell carcinoma gene in non-small cell lung cancers. Yonsei Med. J. 60: 326-335.

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.