

# Gene Section

## Short Communication

# PRCC (papillary renal cell carcinoma)

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## Identity

**Other names:** RCCP1 (renal cell carcinoma, papillary, 1)

**HGNC (Hugo):** PRCC

**Location:** 1q21.2



Probe(s) - Courtesy Mariano Rocchi, Resources for Molecular Cytogenetics.

## DNA/RNA

### Description

cDNA of 2039 bp.

### Transcription

1989 bp RNA; coding sequence: CDS 191...1666.

## Protein

### Description

491 amino acids; 52 kDa; proline/leucine/glycine rich domain of 150 amino acids in N-term.

### Expression

Wide; in the fetus and in the adult.

### Homology

None is known.

## Implicated in

### *t(X;1)(p11.2;q21.2) in renal cell carcinoma --> PRCC/TFE3*

#### Disease

t(X;1) is a very rare subtype of papillary renal cell carcinoma

#### Prognosis

Overall 5-yr survival rate around 85%.

#### Hybrid/Mutated gene

5' PRCC - 3' TFE3; variable breakpoint in PRCC; breakpoint in the 1st intron of TFE3.

PRCC/TFE3

Pro/Leu/Gly ATA bHLH LZ

Pro/Leu/Gly: proline/leucine/glycine rich

ATA: acidic transcriptional activation

bHLH: basic helix loop helix LZ: leucine zipper

#### Abnormal protein

N-term PRCC with the proline rich sequence fused to most of TFE3, including the; the reciprocal TFE3-PRCC is expressed; it is to be noted that the normal TFE3 transcript is lost in female patients.

## References

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*This article should be referenced as such:*

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