

### **Supplementary data**

***Splice variant-specific RT-PCR.*** Primers were as follows: 1) 5'-ATGAGAGCTGCACCC (F) and 5'-GCTCTGGGCAGATTCAAAGG (R) in the detection of full-length human TM-PAP; 2) 5'-ATGAGAGCTGTTCTCTGCC (F) and 5'-AGCCCTGTGAACAGCTCAATG (R) in the detection of mouse full-length TM-PAP; 3) 5'-GTATTCCGCACACGACACTAC (F) and 5'-GATACACATCTCTCTGCCAG (R) in the detection of TM-PAP in different mouse tissues; 4) 5'-TCATGTATTCTGCGCATG (F) and 5'-AATGGATCCGATGTTCCCATAGGATTC (R) (the underline part of the sequence is added to generate a BamH1 restriction site needed in the TOPO-cloning) in the detection of human TM-PAP in LNCaP and PC-3 cells; and 5) in the detection of TM- and secreted PAP in human BPH and PC specimens forward primer for both variant was 5'-GAGAAGGGGAGTACTTTGTGG and reverse 5'-GGATTCTCTCTGCCAGCAGAG for TM-PAP and 5'-CTAATCTGTACTGTCCTCAG for secreted PAP. PCR products were observed by staining with ethidium bromide on agarose gel after electrophoresis.

***Quantitative real-time RT-PCR:*** Primers for TM-PAP were 5'-TCTCAGTGGTGCCGCATCTA (F), 5'-CAGGGTGTGAGGATGGCAA (R), and probe 5'-GCCCACATGGCAAAGCCTGTCCT, for secreted PAP 5'-GGCAGATGATGCTTTGAGAACA (F), 5'-TCATCCAAAGCCCATTTTCC (R), and probe 5'-TTGGCCATTACCCCCAGCTTTG, and for 18S mRNA 5'-TGGTTGCAAAGCTGAACTTAAAG (F), 5'-AGTCAAATTAAGCCGCAGGC (R), and probe 5'-CCTGGTGGTGCCCTTCCGTCA.