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**Table S1.** Relative expression levels of miRNAs and respective fold changes in urinary sediments from Tf and PCa groups using the sub-cohort of patients with PSA levels ≤ 10 ng/mL ($n$ = 34).

| miRNA | Median relative expression level (x $10^{-3}$) | | Fold change PCa vs Tf | $p$ value |
|---|---|---|---|---|
| | in Tf | in PCa | | |
| miR-125b | 31.97 | 25.32 | 0.79 | 0.845 |
| miR-145 | 16.23 | 9.68 | 0.60 | 0.183 |
| miR-155 | 15.59 | 23.52 | 1.51 | 0.891 |
| miR-16 | 663.17 | 314.83 | 0.47 | 0.017 |
| miR-195 | 292.72 | 133.56 | 0.46 | 0.045 |
| miR-200c | 713.34 | 741.45 | 1.04 | 0.593 |
| miR-205 | 34.88 | 42.42 | 1.22 | 0.593 |
| miR-21 | 652.71 | 357.36 | 0.55 | 0.183 |
| miR-218 | 2.45 | 1.67 | 0.68 | 0.593 |
| miR-26a | 315.02 | 162.06 | 0.51 | 0.209 |
| miR-375 | 55.36 | 55.83 | 1.01 | 0.845 |
| miR-96 | 0.29 | 0.08 | 0.28 | 0.209 |

3 Depicted are the median relative transcript levels of the evaluated miRNAs (normalized to the geometric mean
4 of reference RNAs RNU44 and RNU48) in Tf and PCa groups as well as the fold change in the PCa samples
5 compared to the Tf group. $p$ values were calculated by the Mann–Whitney U test and then corrected for multiple
6 comparisons by the Benjamini-Hochberg method. miRNA/miR: microRNA, PCa: prostate cancer, PSA: prostate
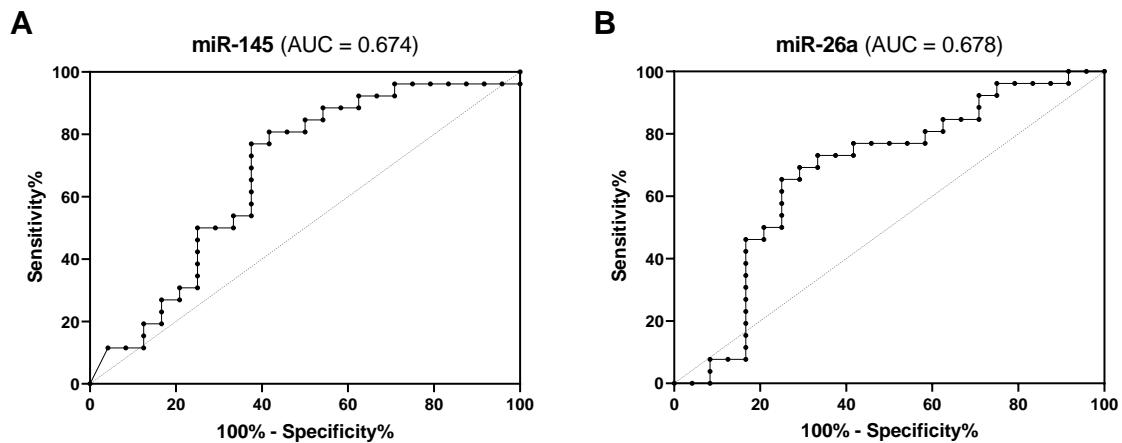7 specific antigen, Tf: tumor-free

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**Table S2.** Assessment of the diagnostic power of PSA, PSAD and miRNA expression levels in urinary sediments by ROC curve analyses using the whole patient cohort ($n$ = 50).

| Parameter | AUC | 95% CI | $p$ value |
|---|---|---|---|
| PSA | 0.564 | 0.403-0.726 | 0.656 |
| PSAD | 0.708 | 0.562-0.853 | 0.031 |
| miR-125b | 0.527 | 0.362-0.693 | 0.851 |
| miR-145 | 0.674 | 0.519-0.829 | 0.070 |
| miR-155 | 0.502 | 0.338-0.665 | 0.985 |
| miR-16 | 0.744 | 0.599-0.888 | 0.012 |
| miR-195 | 0.729 | 0.587-0.871 | 0.017 |
| miR-200c | 0.546 | 0.376-0.717 | 0.794 |
| miR-205 | 0.526 | 0.357-0.694 | 0.851 |
| miR-21 | 0.628 | 0.468-0.788 | 0.217 |
| miR-218 | 0.532 | 0.369-0.695 | 0.851 |
| miR-26a | 0.678 | 0.521-0.834 | 0.070 |
| miR-375 | 0.513 | 0.346-0.680 | 0.928 |
| miR-96 | 0.609 | 0.451-0.767 | 0.306 |

12 $p$ values calculated by the ROC curve analysis were corrected for multiple comparisons by the Benjamini-
13 Hochberg method. 95% CI: 95% confidence interval, AUC: area under the curve, miRNA/miR: microRNA, PSA:
14 prostate specific antigen, PSAD: prostate specific antigen density, ROC: receiver operating characteristic

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**Figure S1.** ROC curve analysis of (**A**) miR-145 and (**B**) miR-26a expression levels in urinary sediments using the whole study cohort (*n* = 50). AUC: area under the curve, miR: microRNA, ROC: receiver operating characteristic
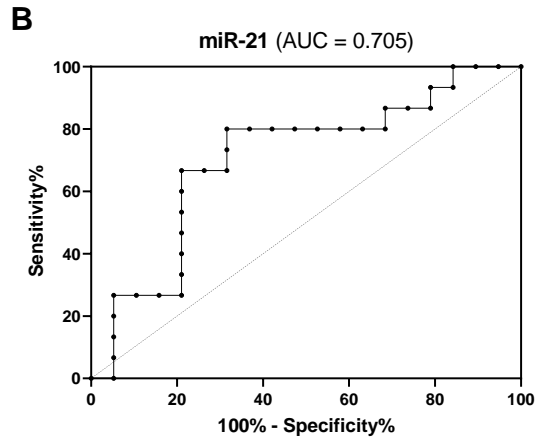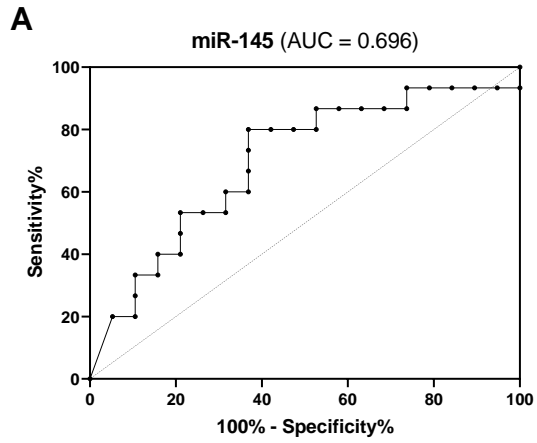
**Table S3.** Assessment of the diagnostic power of PSA, PSAD and miRNA expression levels in urinary sediments by ROC curve analyses using the sub-cohort of patients with PSA levels ≤ 10 ng/mL (*n* = 34).

| Parameter | AUC | 95% CI | *p* value |
|-----------|-----|--------|-----------|
| PSA | 0.621 | 0.431-0.811 | 0.379 |
| PSAD | 0.595 | 0.394-0.795 | 0.524 |
| miR-125b | 0.530 | 0.330-0.730 | 0.813 |
| miR-145 | 0.696 | 0.514-0.879 | 0.117 |
| miR-155 | 0.516 | 0.315-0.716 | 0.876 |
| miR-16 | 0.818 | 0.659-0.976 | 0.008 |
| miR-195 | 0.772 | 0.614-0.930 | 0.022 |
| miR-200c | 0.579 | 0.384-0.774 | 0.547 |
| miR-205 | 0.579 | 0.380-0.778 | 0.547 |
| miR-21 | 0.705 | 0.522-0.888 | 0.109 |
| miR-218 | 0.575 | 0.380-0.771 | 0.547 |
| miR-26a | 0.674 | 0.484-0.863 | 0.155 |
| miR-375 | 0.530 | 0.332-0.727 | 0.813 |
| miR-96 | 0.674 | 0.488-0.859 | 0.155 |

*p* values calculated by the ROC curve analysis were corrected for multiple comparisons by the Benjamini-Hochberg method. 95% CI: 95% confidence interval, AUC: area under the curve, miRNA/miR: microRNA, PSA: prostate specific antigen, PSAD: prostate specific antigen density, ROC: receiver operating characteristic

**A** miR-145 (AUC = 0.696)

**B** miR-21 (AUC = 0.705)

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**Figure S2.** ROC curve analysis of (**A**) miR-145 and (**B**) miR-21 expression levels in urinary sediments using the sub-cohort of patients with PSA levels ≤ 10 ng/mL ($n = 34$). AUC: area under the curve, miR: microRNA, ROC: receiver operating characteristic