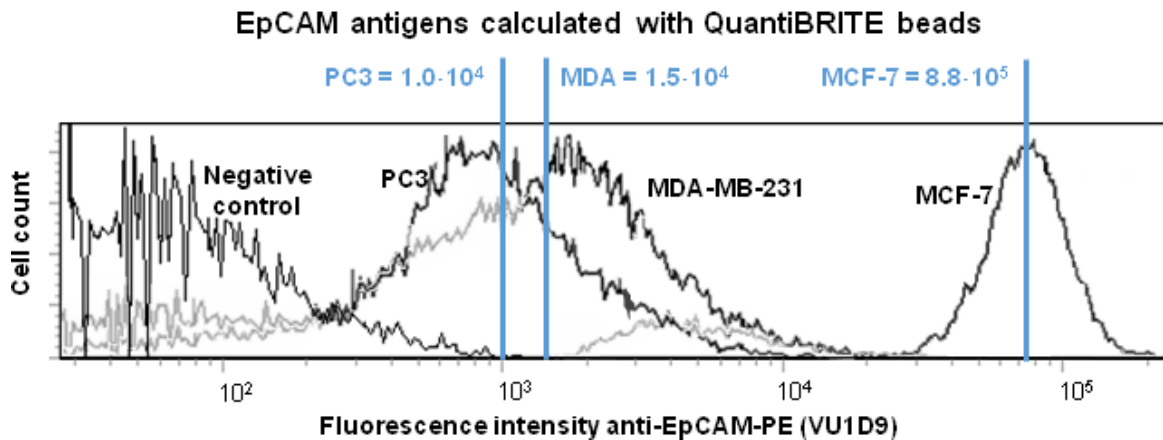
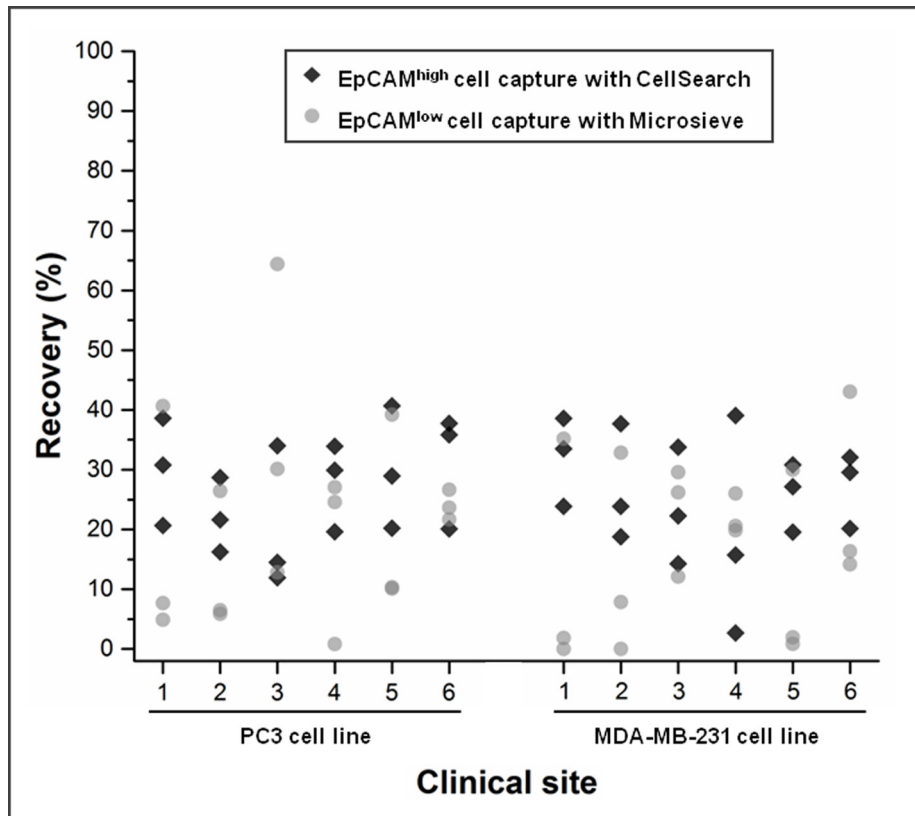


EpCAM^{high} and EpCAM^{low} circulating tumor cells in metastatic prostate and breast cancer patients

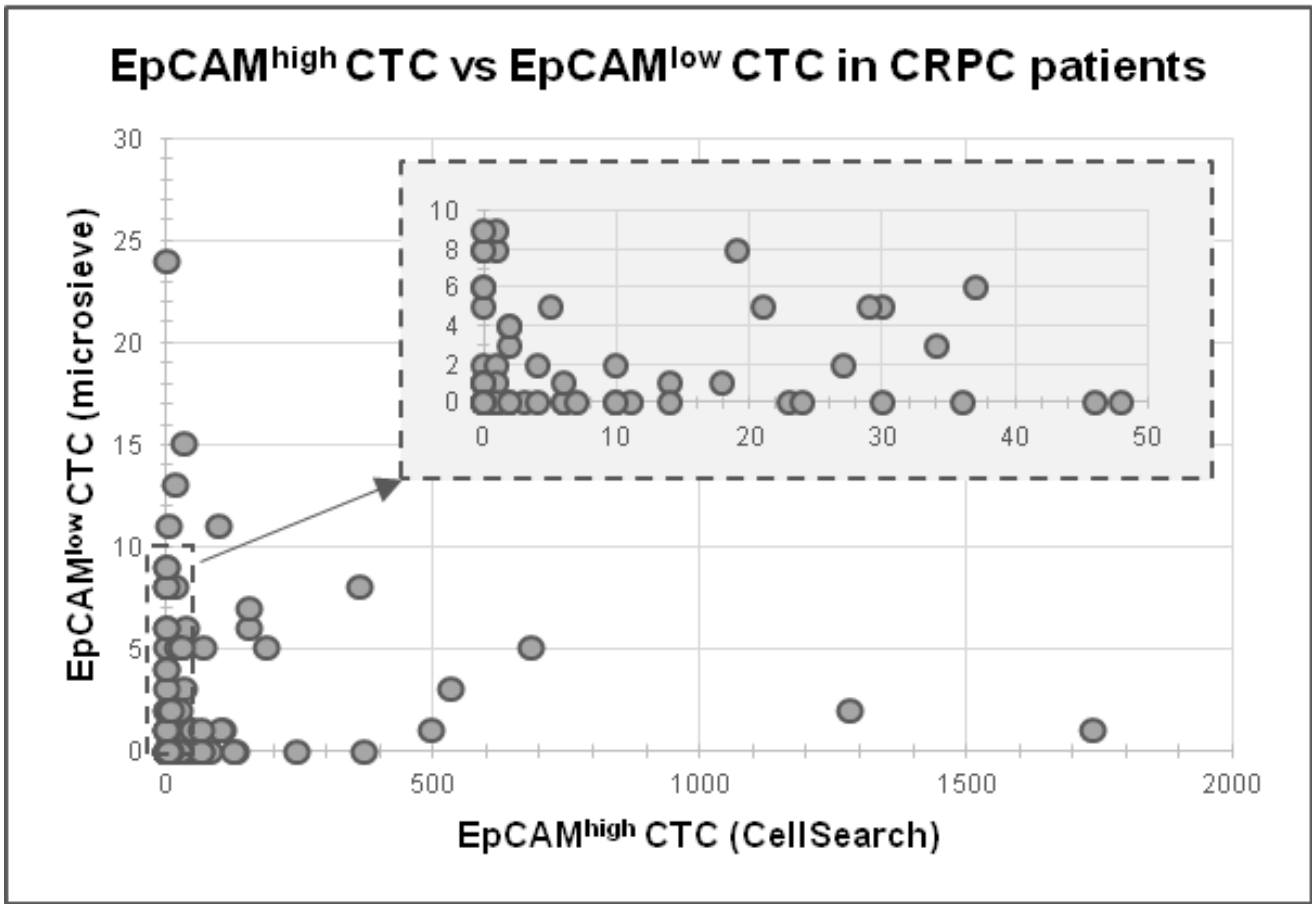
SUPPLEMENTARY MATERIALS



Supplementary Figure 1: Distribution of EpCAM density on cancer cell lines. Histograms showing the distribution of EpCAM density of cancer cell line PC3, MDA-MB-231 and MCF-7 cells, as well as a negative control. The actual number of antigens (blue) was determined by the use of QuantiBRITE beads (BD Bioscience). The average EpCAM density of PC3 is 1.0×10^4 antigens with 89% CV. The average EpCAM density of MDA-MB-231 is 1.5×10^4 antigens with a CV of 165%. The average EpCAM density of MCF-7 is 8.8×10^5 antigens with a CV of 62%.

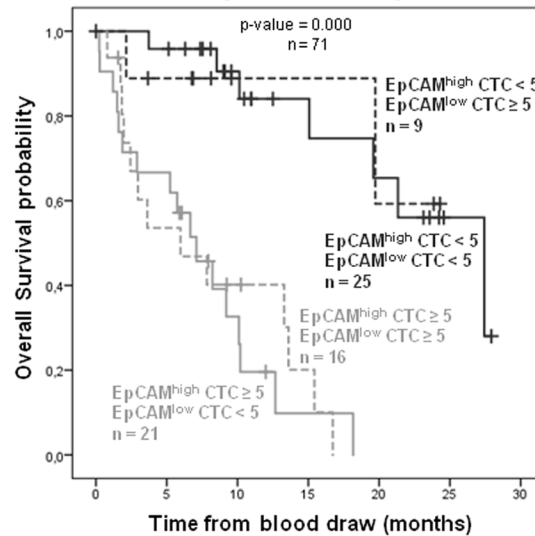


Supplementary Figure 2: Recovery of PC3 and MDA-MB-231 cells per clinical site. Scatter plot displaying the recovery (%) of PC3 and MDA-MB-231 cells of each processed sample with CellSearch and microsieves per clinical site.

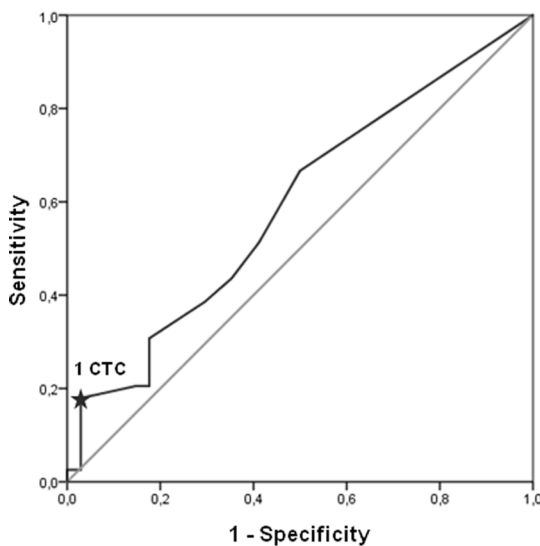


Supplementary Figure 3: CTC counts in 91 CRPC patients. Scatter plot of EpCAM^{high} and EpCAM^{low} CTC counts in 91 castration-resistant prostate cancer patients.

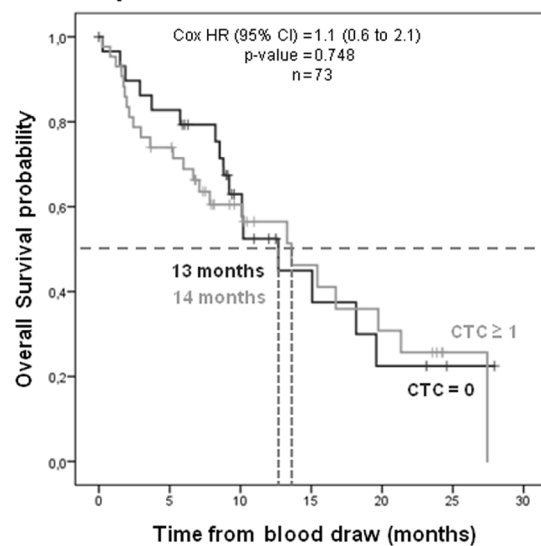
A Combined EpCAM^{high} & EpCAM^{low} CTC



B ROC Curve



C EpCAM^{low} CTC with threshold ≥ 1



CTC = 0	30	27	16	6	4	2	0
CTC ≥ 1	43	30	17	9	7	3	0
Number of patients still at risk							

Supplementary Figure 4: Overall survival for EpCAM^{low} CTC. Kaplan–Meier curves of 71 CRPC patients separated into four groups with both EpCAM^{high} and EpCAM^{low} CTC measured (A): 1. <5 EpCAM^{high} CTC and <5 EpCAM^{low} CTC (black solid line); 2. <5 EpCAM^{high} CTC and ≥5 EpCAM^{low} CTC (black dashed line); 3. ≥5 EpCAM^{high} CTC and <5 EpCAM^{low} CTC (grey solid line); and 4. ≥5 EpCAM^{high} CTC and ≥5 EpCAM^{low} CTC (grey dashed line). It shows a strong trend between EpCAM^{high} CTC and survival, whereas the presence or absence of EpCAM^{low} CTC has no influence on survival. The ROC curve indicated that the highest diagnostic ability for EpCAM^{low} CTC is with a threshold of 1 CTC (B). The Kaplan-Meier curve for overall survival of EpCAM^{low} CTC with 1 CTC threshold shows no correlation with survival ($p = 0.748$) (C).

Supplementary Table 1: Overview of CTC found in all CRPC and mBC patients. Detailed overview of EpCAM^{high} and EpCAM^{low} CTC found in castrate-resistant prostate cancer patients and metastatic breast cancer patients. See Supplementary_Table_1