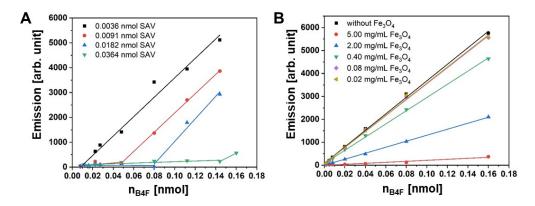
## Supporting Information

## High Efficiency Capture of Biomarker miRNA15a for Noninvasive Diagnosis of Malignant Kidney Tumors

Alexander M. Renner, Christina Derichsweiler, Shaista Ilyas, Isabel Gessner, Jochen W. U. Fries and Sanjay Mathur\*



**Figure S1:** (A) Quenching effect of SAV on B4F shows, that up to 4 B4F molecules can bind on one SAV protein. (B) Based on particle scattering effect,  $Fe_3O_4@DHCA$  dispersions higher than 0.08 mg/mL have a quenching effect on the fluorescence of B4F.

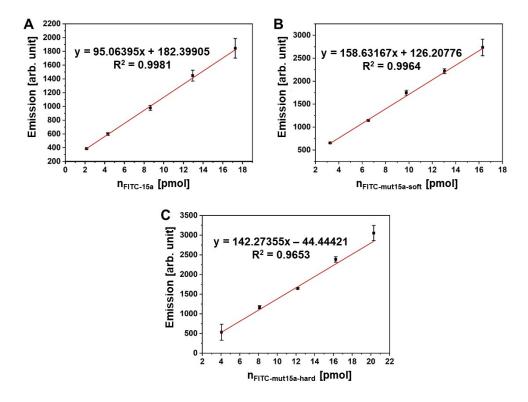


Figure S2: Calibration line of (A) FITC-15a, (B) FITC-mut15a-soft and (C) FITC-mut15a-hard.

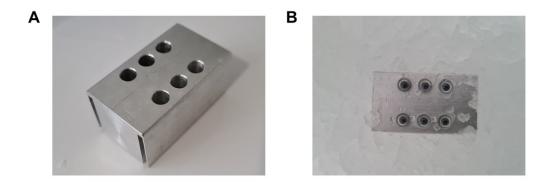


Figure S3: (A-B) Designed cooling block, made of aluminium for the hybdritization of ssDNA-15a and FITC-C-tail with 6 places for PCR-tubes and 2 small slots for magnets.

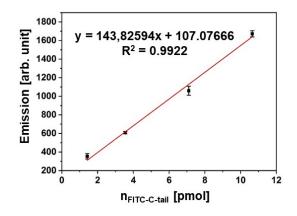


Figure S4: Calibration line of FITC-C-tail after cooling via ice bath.