Supporting Information

A DNA-aptamer based qPCR using light-up dyes for the detection of nucleic acids

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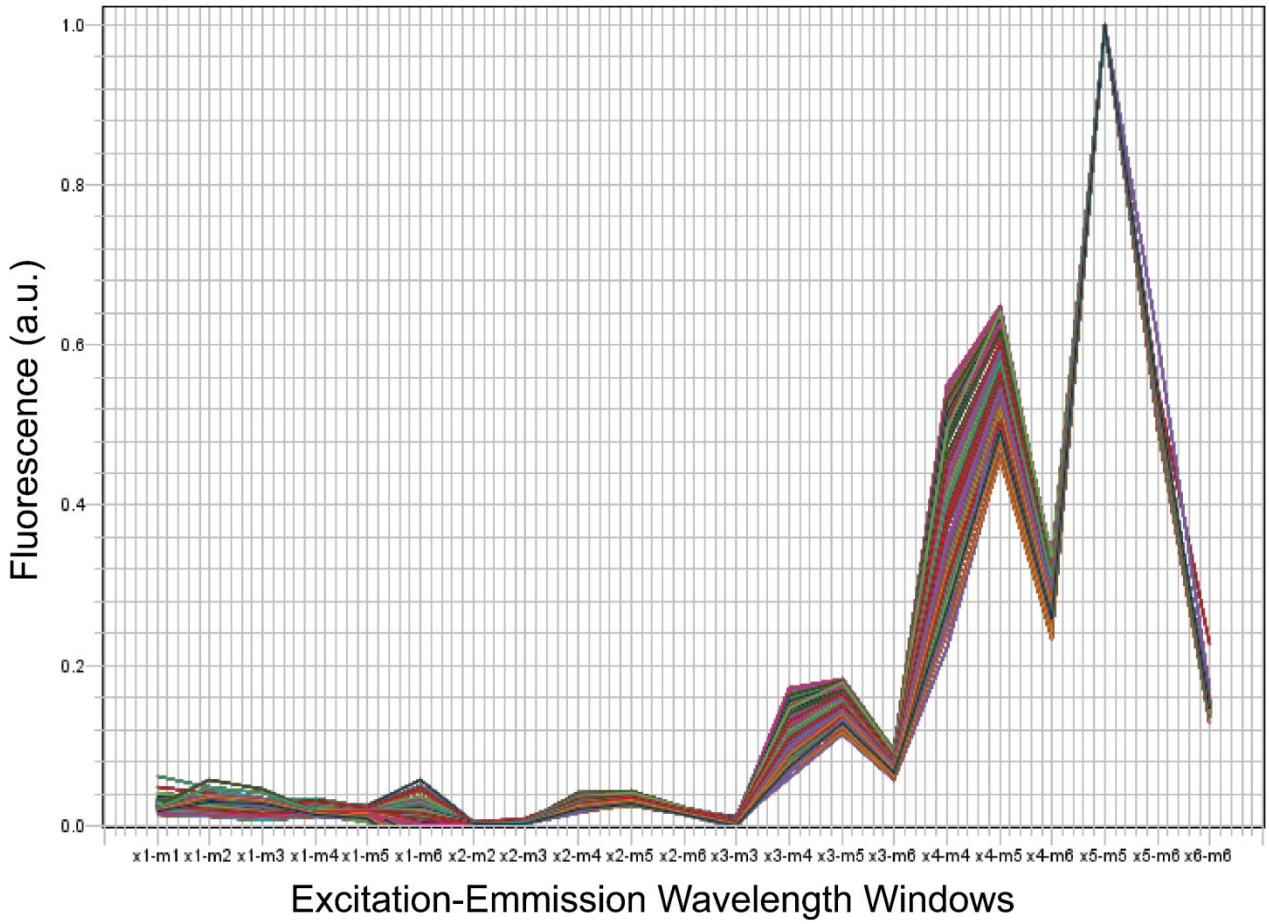

Supporting Figure 1: Fluorescence calibration of DIR dye with DIR2-1 aptamer

A 96-well plate with 20 µL total volume in each well with 400 nM DIR dye and 400 nM DIR2-1 aptamer was calibrated on the qPCR instrument based on manufacturer's protocol. The excitation filter sets are x1: 470 ± 15 nm, x2: 520 ± 10 nm, x3: 549.5 ± 10 nm, x4: 580 ± 10 nm, x5: 640 ± 10 nm, and x6: 662 ± 10 nm; the emission filter sets are m1: 520 ± 15 nm, m2: 558 ± 12 nm, m3: 586.5 ± 10 nm, m4: 623 ± 14 nm, m5: 682 ± 14 nm, and m6: 711 ± 12 nm. A strong, sharp and consistent peak was observed for all the 96 samples using the excitation filter x5: 640 ± 10 nm and emission filter m5: 682 ± 14 nm.