Article

Bio-Separated and Gate-Free 2D MoS_2 Biosensor Array for Ultrasensitive Detection of BRCA1

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Table S1. DNA sequences of tetrahedron probe.

DNA-tetra	Sequences (from 5′ to 3′)
DNA-a	ACATTCCTAAGTCTGAAACATTACAGCTTGCTACACGAGAAGAGCCGC CATAGTA TTTTT GATTTTCTTCCTTTTGTTC
DNA-b	HS-TATCACCAGGCAGTTGACAGTGTAGCAAGCTGTAATAGATGCGAGGGT CCAATAC
DNA-c	HS-TCAACTGCCTGGTGATAAAACGACACTACGTGGGAATCTACTATGGCG GCTCTTC
DNA-d	HS-TTCAGACTTAGGAATGTGCTTCCCACGTAGTGTCGTTTGTATTGGACC CTCGCAT

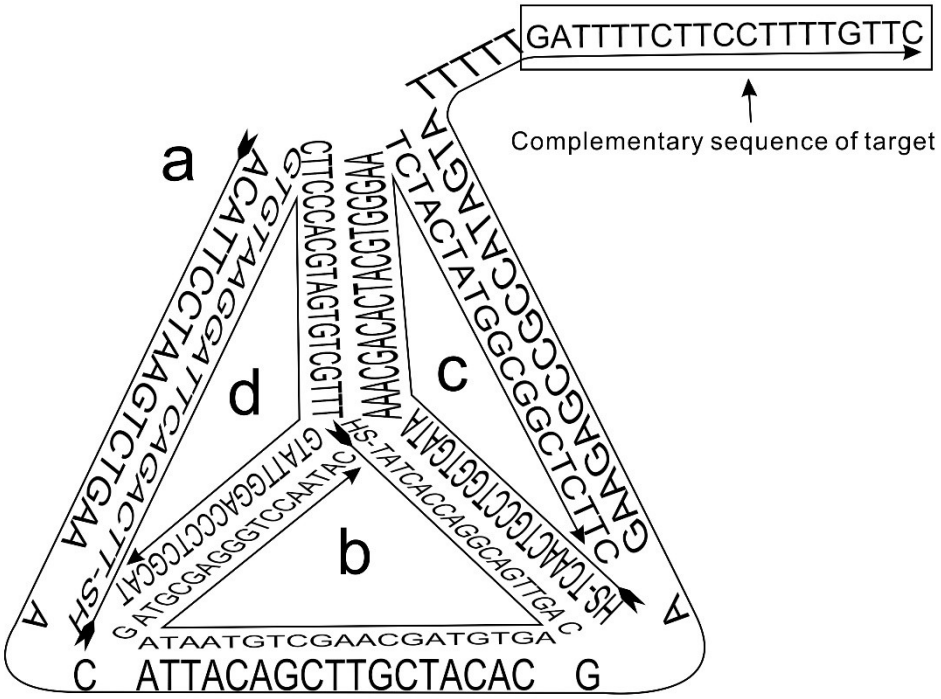

Figure S1. Schematic diagram of base complementation of DNA tetrahedron probe synthesis.

Figure S1 shows the structure diagram of DNA tetrahedral probe synthesis, where the bottom surface of the tetrahedron is composed of an equilateral triangle with a side length of 17 bases (One base length is a, a = 0.34 nm). The height of the tetrahedron is estimated as

$$h = 17a \times \frac{\sqrt{6}}{3}, \quad (1)$$

h ≈ 4.7 nm. And the height of the tetrahedron guaranteed by the experimental data should be less than or equal to 4.7 nm.