

Table S2

The comparison of our strategy with other reported methods for the detection of BRCA1 gene.

Reference	Substrate used	Detection	Techniques used	Detection limit
(Li et al. 2012) ¹	SWCNT-modified SPEs	Hybridization between immobilized probe and target probe	Electrochemistry	378.52 nM
(Shimron et al. 2012) ²	Solution phase	Autonomous assembly of HRP-mimicking DNzyme nanowires	Colorimetry or Chemiluminescence	10 ⁻¹³ M
(Rasheed and Sandhyarani 2014) ³	Graphene-modified GCE	Sandwich-type hybridization by capture probe, target probe and reporter probe labeled with Au nanoparticles	Electrochemistry	1 fM
(Rasheed and Sandhyarani 2015) ⁴	Functionalized gold electrode	Hybridization between DNA-r.AuNP and target probe	Electrochemistry	50 aM
Present study	Solution phase	DNzyme assistant DNA recycling, RCA and HRP-mimicking DNzyme amplification	Colorimetry	3.3 fM

1 C.-z. Li, H. Karadeniz, E. Canavar and A. Erdem, *Electrochim. Acta*, 2012, **82**, 137-142.

2 S. Shimron, F. Wang, R. Orbach and I. Willner, *Anal. Chem.*, 2012, **84**, 1042-1048.

3 P. Abdul Rasheed and N. Sandhyarani, *Sens. Actuators, B*, 2014, **204**, 777-782.

4 P. Abdul Rasheed and N. Sandhyarani, *Biosens. Bioelectron.*, 2015, **65**, 333-340.