[ssG-DNA]/(ng/6 µL)	CV Relative I_p (µA)
0	0
0.05	0.8
0.5	1.44
1.0	2.98

LOD = 3(σ/S) and S = m/A
σ = 0.466
m =2.986 µA/ng
A = 0.126 cm^2
S = 23.698 (µA/cm^2)/ng
LOD = 0.05 ng

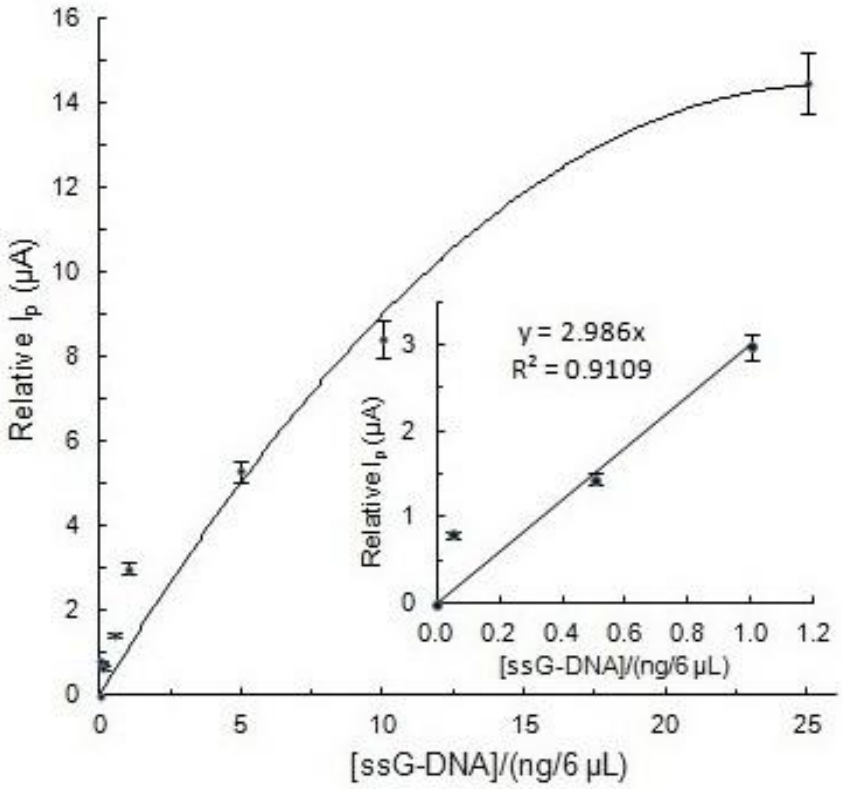

Fig. S1 The plot between CV relative I_p with respect to probe and concentrations of hybridizing ssG-DNA (0-25 ng/6 µL) from Fig. 1 inset. The inset shows 0-1ng/6µL region of the plot for calculation of the slope, sensitivity and LOD.

[ssG-DNA]/(ng/6 µL)	DPV Relative I_p (µA)
0	0
0.05	4.00
0.5	7.22
1.0	13.65

LOD = 3(σ/S) and S = m/A
σ = 0.466
m = 13.89 µA/ng
A = 0.126 cm^2
S = 110.25 (µA/cm^2)/ng
LOD = 0.01 ng

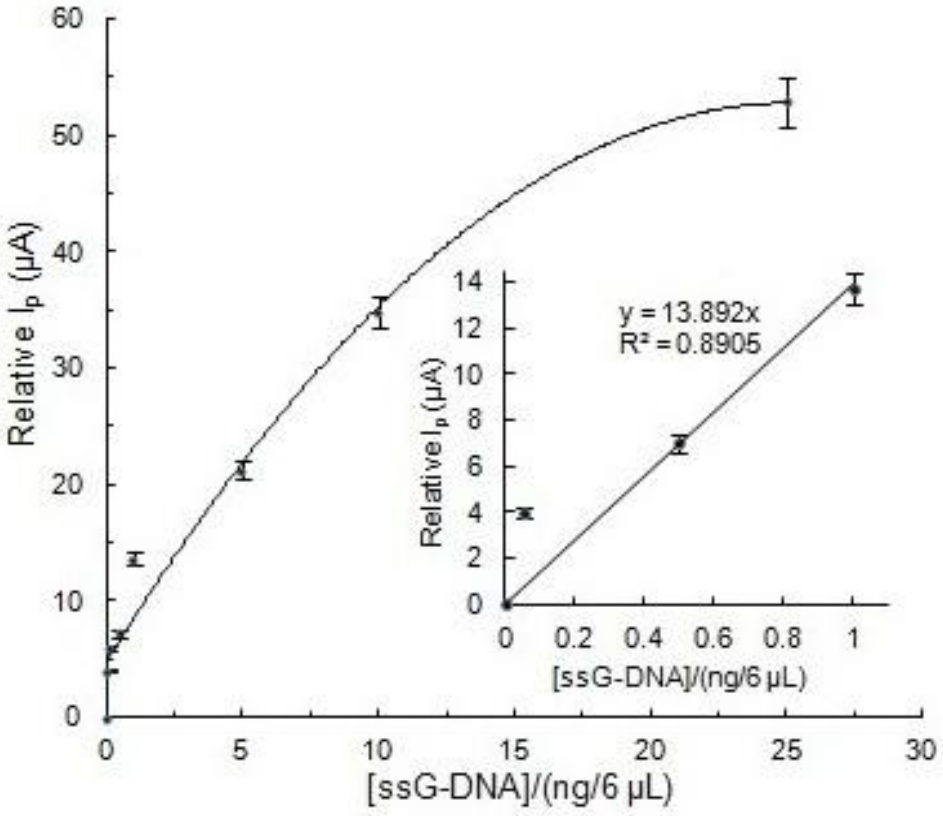

Fig. S2 The plot between DPV relative I_p with respect to probe and concentrations of hybridizing ssG-DNA (0-25 ng/6 µL) from Fig. 2 inset. The inset shows 0-1ng/6µL region of the plot for calculation of the slope, sensitivity and LOD.