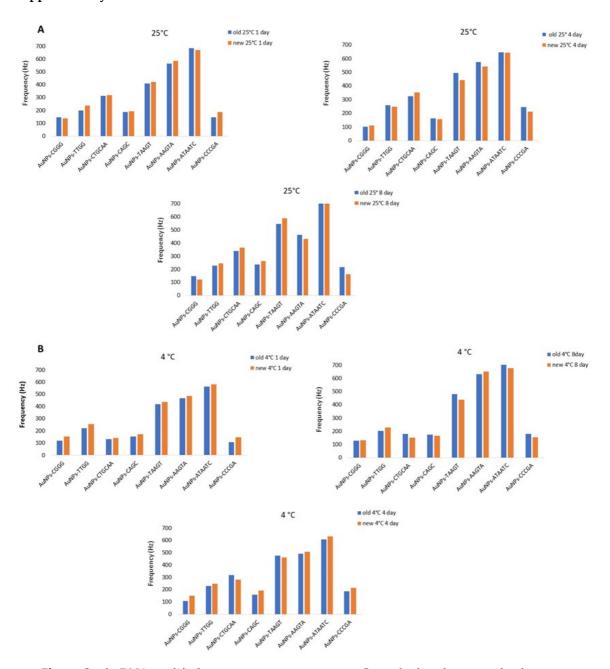
## **Supplementary Materials:**



**Figure S1.** hpDNA-modified sensors array response vs. Octanal after three months from start analysis. (A) Represented the measurements carried out at 25  $^{\circ}$ C from 1th day to 8th day; (B) measurements carried out at 4  $^{\circ}$ C from 1st day to 8th day.

Table S1. Sequences of different loop size hpDNA.

hpDNA	Sequences	,
Loop 4	GAAG-TTGG-CTTC	
Loop 4	GAAG-CGGG-CTTC	
Loop 4	GAAG-CCAG-CTTC	
Loop 5	GAAG-TAAGT-CTTC	
Loop 5	GAAG-AAGTA-CCTT	
Loop 5	GAAG-CCCGA-CTTC	
Loop 6	GAAG-ATAATC-CTTC	
Loop 6	GAAG-CTGCAA-CTTC	