

Target	5' acagcaggucAagaagaguuagugccaugcgggaccaguaca 3'		
Probe and Anchor placement	3'	CCAGTTCTx xTATCACGGTACGCCCT	5nt gap
	3'	CCAGTTCTx xATATCACGGTACGCC	4nt gap
	3'	CCAGTTCTx xCATATCACGGTACGCC	3nt gap
	3'	CCAGTTCTxxTCATATCACGGTACGC	2nt gap

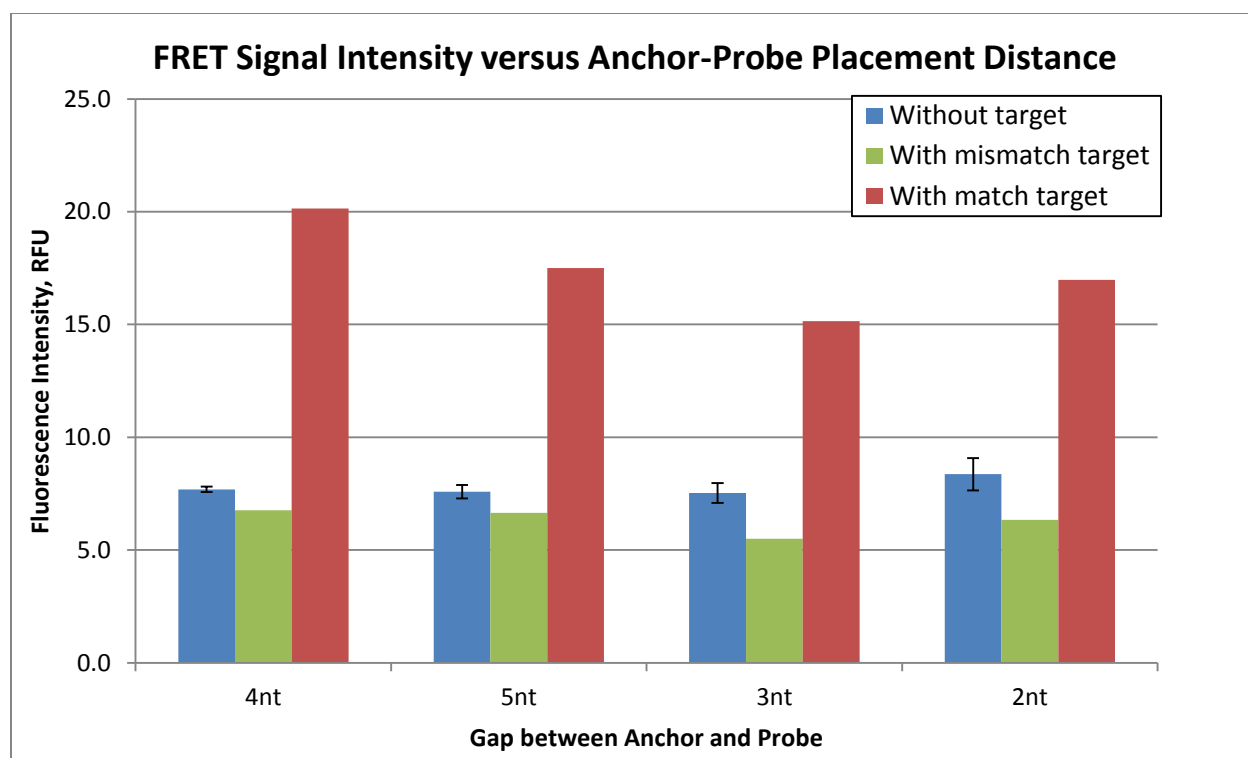


Figure S1. Optimization between the Anchor (donor) and Probe (acceptor) oligonucleotides. (a): alignment of the anchor, probe, and target sequences is shown. **(b):** FRET signal intensity comparison with 2, 3, 4, or 5 bases separation between the Anchor and Probe oligonucleotides. The Anchor oligonucleotide is the same as Oligo 1 in Table 1, except that the donor fluorophore is FAM (6-carboxyfluorescein); Probe = Oligo 2, Mismatch target = Oligo 10, and Match target = Oligo 9.