

SUPPLEMENTARY DATA

Table S2. Melting temperatures, T_m , ($^{\circ}\text{C}$) and mismatch discriminating temperature differences, $\Delta_{\text{md}}T_m$, of LNA modified duplexes based on the sequence 1 in 1M Na^+ buffer^a.

Set 1ES (LNA at every second base):
 5' - gGtCCtT-X-cTtGGTG -3'
 3' - ccaggaa-Y-gaaccac -5'

Set 1ET (LNA at every third base):
 5' - gGtCtt-X-ctTggTg -3'
 3' - ccaggaa-Y-gaaccac -5'

Set 1A (LNA at the base after mismatch):
 5' - ggtcctt-x-Cttggtg -3'
 3' - ccaggaa-Y-gaaccac -5'

Set 1B (LNA at the base before mismatch):
 5' - ggtcctT-x-cttggtg -3'
 3' - ccaggaa-Y-gaaccac -5'

Set 1BM (LNA at the base before mismatch and at the mismatch site):
 5' - ggtcctT-X-cttggtg -3'
 3' - ccaggaa-Y-gaaccac -5'

X•Y base pair	Set 1ES		Set 1ET		Set 1A		Set 1B		Set 1BM	
	T_m	$\Delta_{\text{md}}T_m$	T_m	$\Delta_{\text{md}}T_m$	T_m	$\Delta_{\text{md}}T_m$	T_m	$\Delta_{\text{md}}T_m$	T_m	$\Delta_{\text{md}}T_m$
Perfectly Matched Duplexes										
A•T	79.7	-	72.8	-	63.6	-	62.0	-	65.6	-
T•A	79.0	-	73.3	-	64.4	-	62.5	-	64.3	-
C•G	83.3	-	76.5	-	65.6	-	64.3	-	67.7	-
G•C	83.5	-	76.4	-	67.4	-	66.2	-	69.7	-
Single Base Mismatched Duplexes										
A•A	67.2	12.2	62.8	10.2	55.1	8.9	52.1	10.1	54.0	11.0
A•C	67.8	13.8	62.7	11.9	53.8	11.7	52.3	11.8	54.9	12.7
A•G	69.4	12.1	65.1	9.6	59.1	5.5	56.2	7.0	57.2	9.5
C•A	68.6	12.6	63.1	11.8	51.6	13.5	50.3	13.1	53.9	12.1
C•C	66.0	17.4	60.5	16.0	47.8	18.7	47.9	17.4	51.2	17.5
C•T	69.1	12.4	63.2	11.4	51.3	13.2	50.8	12.3	54.0	12.7
G•A	68.2	13.1	63.7	11.2	57.0	9.0	55.3	9.0	56.3	10.7
G•G	71.3	12.2	66.2	10.3	60.0	6.5	58.8	6.5	59.0	9.7
G•T	76.5	5.1	70.5	4.1	58.8	6.7	60.2	3.9	63.7	3.9
T•C	66.5	14.8	62.6	12.3	51.0	14.9	51.4	13.0	53.0	14.0
T•G	72.3	8.8	66.6	8.3	56.3	8.7	55.6	7.8	58.0	8.0
T•T	70.0	9.3	64.5	8.6	51.9	12.1	52.6	9.7	55.2	9.8

^a $C_1 = 2\mu\text{M}$. Values of $\Delta_{\text{md}}T_m$ were calculated from nonrounded values of T_m .

