

Table S1. Thermodynamic parameters of LNA-modified sSSO/RNA duplexes^a

Duplex type	Sequence sSSO (5'-3')	Complementary RNA fragment sequence (5'-3')	Average of curve fits				T_M^{-1} vs log C_T					
			$-\Delta H^\circ$ (kcal/mol)	$-\Delta S^\circ$ (eu)	$-\Delta G^\circ_{37}$ (kcal/mol)	T_M^b (°C)	$-\Delta H^\circ$ (kcal/mol)	$-\Delta S^\circ$ (eu)	$-\Delta G^\circ_{37}$ (kcal/mol)	T_M^b (°C)	$\Delta\Delta G^\circ_{37}$ (kcal/mol)	ΔT_M^b (°C)
sSSO/sE10	CGGAGUCA (sSSO)	UGACUCCG	73.5±1.8	197.13±5.5	12.36±0.11	63.7	68.5±1.2	182.3±3.5	12.01±0.08	64.0	0	0
	<u>C</u> ^L GGAGUCA (sSSO1)	UGACUCCG	78.9±2.1	210.7±6.1	13.57±0.20	67.4	73.5±1.5	194.5±4.3	13.12±0.12	67.6	-1.11	3.6
	CGGA <u>A</u> ^L GUCA (sSSO2)	UGACUCCG	70.0± 4.4	183.5±13.2	13.07±0.30	69.0	74.0±8.6	195.4±25.1	13.42±0.81	68.8	-1.41	4.8
	CGGAGUC <u>C</u> ^L A (sSSO3)	UGACUCCG	76.9±1.0	204.5±2.8	13.53±0.14	68.0	69.7±4.2	182.7±12.7	13.00±0.32	68.7	-0.99	4.7
	CGGAGUCA <u>A</u> ^L (sSSO4)	UGACUCCG	76.2± 2.5	202.9 ± 7.6	13.30±0.18	67.2	75.7±5.1	201.3±15.1	13.25±0.38	67.2	-1.24	3.2
sSSO/sI9	CGGAGUCA (sSSO)	GUACACCA	47.4±3.1	134.9±10.1	5.53±0.10	30.6	49.8±4.7	143.1±16.5	5.46±0.22	30.5	0	0
	<u>C</u> ^L GGAGUCA (sSSO1)	GUACACCA	43.0±5.1	120.3±16.6	5.69±0.10	31.0	40.7±4.1	112.8±13.6	5.73±0.20	31.0	-0.27	0.5
	CGGA <u>A</u> ^L GUCA (sSSO2)	GUACACCA	44.6±4.3	125.9±14.0	5.53±0.13	30.2	48.9±3.4	140.3±11.4	5.37±0.16	29.8	0.09	-0.7
	CGGAGUC <u>C</u> ^L A (sSSO3)	GUACACCA	45.5±3.3	127.7±10.9	5.93±0.14	32.9	43.2±2.0	119.9±6.8	6.02±0.08	33.4	-0.56	2.9
	CGGAGUCA <u>A</u> ^L (sSSO4)	GUACACCA	43.6±6.2	121.5±20.5	5.87±0.24	32.4	38.1±4.3	103.4±14.4	6.03±0.27	33.0	-0.57	2.5

a – buffer: 50 mM NaCl, 20 mM sodium cacodylate, 0,5 mM Na₂EDTA, pH 7,0, b - calculated for 10⁻⁴ M oligomer concentration; sE10: 5'UGACUCCG, sI9: 5'GUACACCA

Table S2. Thermodynamic parameters of UNA-modified SSO/RNA duplexes.

Duplex type	Sequence sSSO (5'-3')	Complementary RNA fragment sequence (5'-3')	Average of curve fits				T_M^{-1} vs log C_T					
			$-\Delta H^\circ$ (kcal/mol)	$-\Delta S^\circ$ (eu)	$-\Delta G^\circ_{37}$ (kcal/mol)	T_M^b (°C)	$-\Delta H^\circ$ (kcal/mol)	$-\Delta S^\circ$ (eu)	$-\Delta G^\circ_{37}$ (kcal/mol)	T_M^b (°C)	$\Delta\Delta G^\circ_{37}$ (kcal/mol)	ΔT_M^b (°C)
sSSO/sE10	CGGAGUCA (sSSO)	UGACUCCG	73.5±1.8	197.1±5.5	12.36±0.11	63.7	68.5±1.2	182.3±3.5	12.01±0.08	64.0	0.00	0.00
	<u>C</u> ^U GGAGUCA (sSSO5)	UGACUCCG	70.3±3.0	190.0±8.8	11.3±0.29	59.7	61.6±2.4	163.8±7.3	10.78±0.15	60.0	1.23	-4.00
	CGGA <u>A</u> ^U GUCA (sSSO6)	UGACUCCG	57.6±2.0	165.0±6.6	6.40±0.10	36.3	55.0±2.0	156.5±6.5	6.45±0.04	36.5	5.56	-27.50
	CGGAGU <u>C</u> ^U A (sSSO7)	UGACUCCG	68.1±7.4	192.6±23.2	8.38±0.25	45.7	59.9±6.9	166.4±22.0	8.24±0.22	46.1	3.77	-17.90
	CGGAGUCA <u>A</u> ^U (sSSO8)	UGACUCCG	71.8±4.9	195.4±14.7	11.16±0.31	58.4	63.8±2.3	171.2±7.1	10.74±0.12	58.9	1.27	-5.10
sSSO/sI9	CGGAGUCA (sSSO)	GUACACCA	47.4±3.1	134.9±10.1	5.53±0.10	30.6	49.8±4.7	143.1±16.5	5.46±0.22	30.5	0.00	0.00
	<u>C</u> ^U GGAGUCA (sSSO5)	GUACACCA	43.8±2.5	123.6±8.4	5.42±0.07	29.3	45.3±1.5	128.7±5.2	5.37±0.07	29.2	0.09	-1.30
	CGGA <u>A</u> ^U GUCA (sSSO6)	GUACACCA	46.5±10.6	132.5±36.0	5.36±0.67	29.4	45.0±5.8	127.5±19.5	5.46±0.35	29.8	0	-0.70
	CGGAGU <u>C</u> ^U A (sSSO7)	GUACACCA	40.9±3.4	113.0±11.1	5.85±0.12	32.0	41.4±3.2	114.4±10.7	5.86±0.16	32.0	-0.4	1.50
	CGGAGUCA <u>A</u> ^U (sSSO8)	GUACACCA	47.2±11.1	134.8±37.2	5.35±0.50	29.4	50.9±6.4	147.3±21.37	5.22±0.35	29.2	0.24	-1.30

a – buffer: 50 mM NaCl, 20 mM sodium cacodylate, 0.5 mM Na₂EDTA, pH 7.0, b - calculated for 10⁻⁴ M oligomer concentration; sE10: 5'UGACUCCG, sI9: 5'GUACACCA