

SUPPLEMENTAL MATERIAL

Figure S1: Comparison of purine (R) versus pyrimidine (Y) 2' modifications in the absence of 5' phosphorylation of the guide strand. In vitro cell-based evaluation of mRNA knockdown (error bars represent standard deviation of 4 replicates). Unmodified ribose ("r") compared to 2'-deoxy ("d"), 2'-fluoro ("f") and 2'-methoxy ("m"). (A) ApoB (6981), (B) ApoB (9470), (C) ApoB (10127), (D) SSB (386), and (E) SSB (963) target sites evaluated. Single strands containing 2'F content exhibit the most pronounced mRNA knockdown of the various single strand modification patterns tested.

Figure S2: Comparison of purine (R) versus pyrimidine (Y) 2' modifications in the presence of 5' phosphorylation of the guide strand. In vitro cell-based evaluation of mRNA knockdown (error bars represent standard deviation of 4 replicates). Unmodified ribose ("r") compared to 2'-deoxy ("d"), 2'-fluoro ("f") and 2'-methoxy ("m"). (A) ApoB (6981), (B) ApoB (9470), (C) ApoB (10127), (D) SSB (386), and (E) SSB (963) target sites evaluated. Single strands containing 2'F content exhibit the most pronounced mRNA knockdown of the various single strand modification patterns tested.

Figure S3: Three abasic residues (3aba) at positions 1-3 of antisense strand decrease activity for both duplex and single strands. In vitro cell-based evaluation of mRNA knockdown (error bars represent standard deviation of 4 replicates). Unmodified ribose ("r") compared to 2'-deoxy ("d"), 2'-fluoro ("f") and 2'-methoxy ("m"). (A) ApoB (8786), (B) ApoB (6981), (C) ApoB (9470), (D) ApoB (10127), (E) SSB (386), and (F) SSB (963) target sites evaluated. All RNA oligos contain 5' phosphate (5'p).

Figure S1

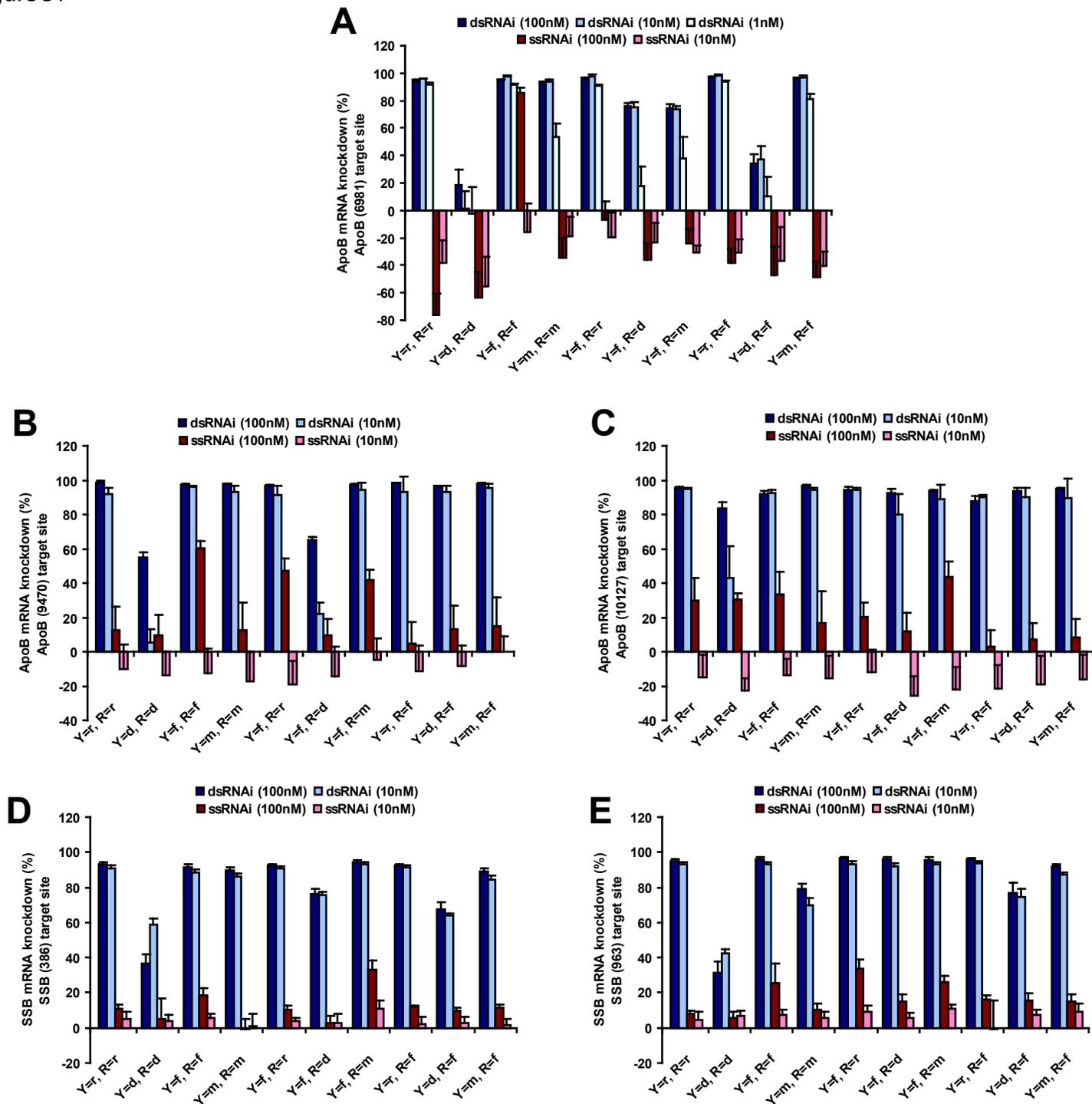


Figure S2

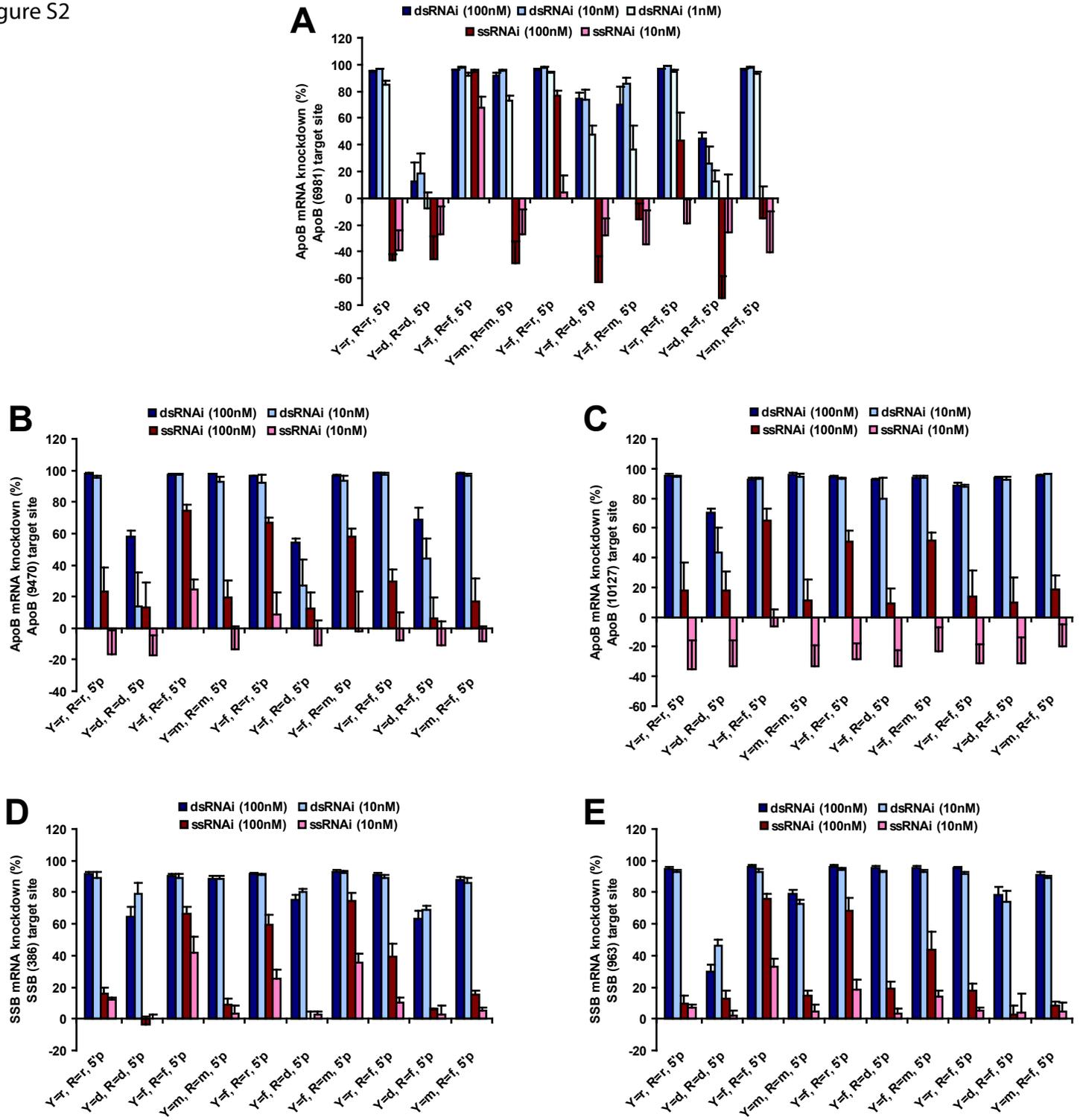
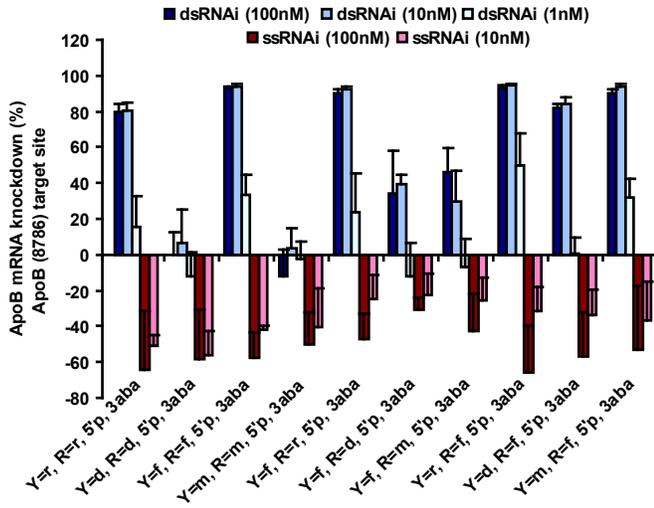
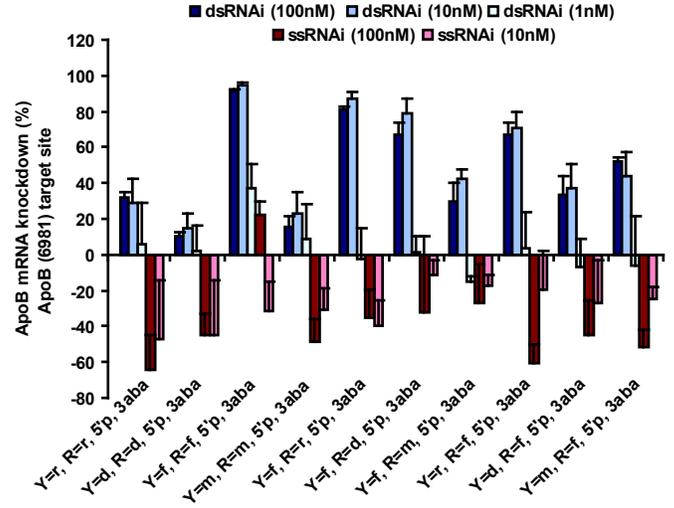


Figure S3

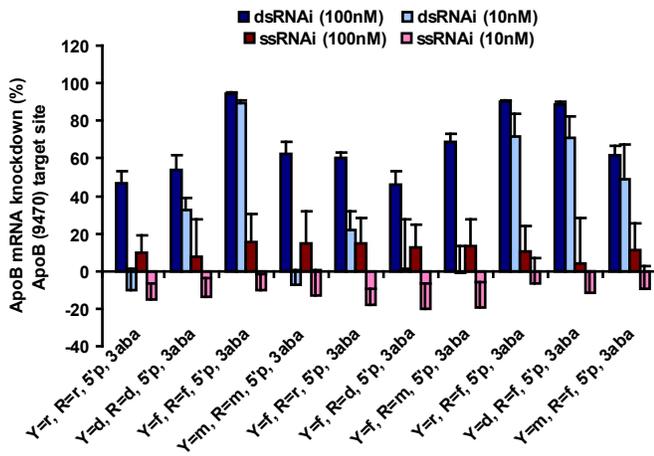
A



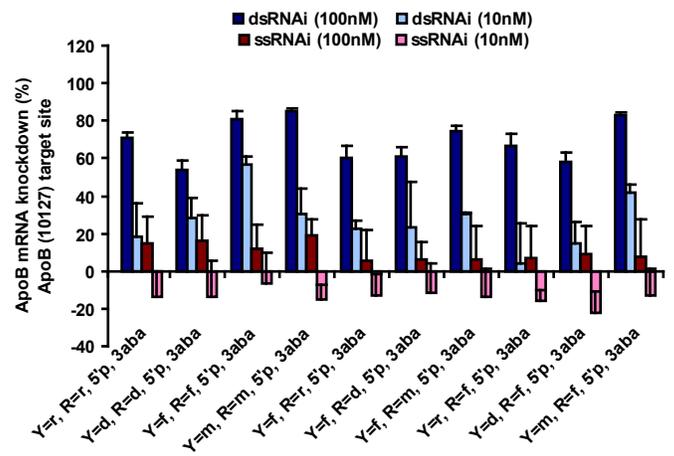
B



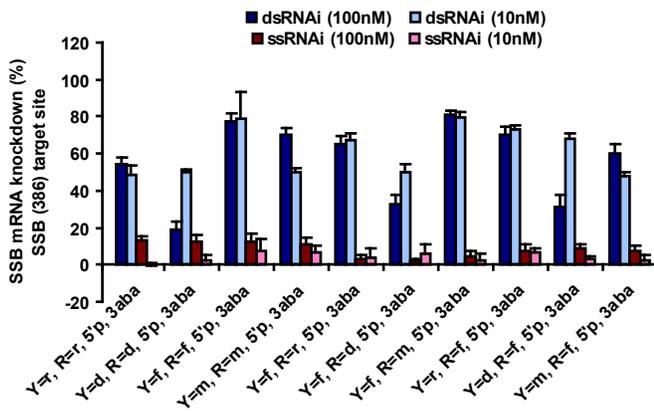
C



D



E



F

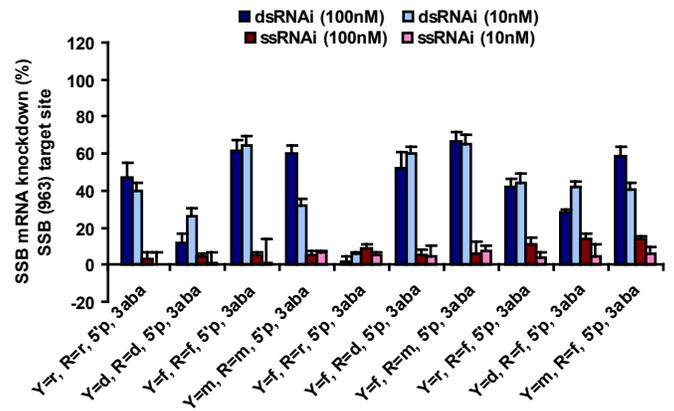


Table S1: In vitro potency and mRNA knockdown (at 10nM) measured in the Hepa1-6 mouse hepatocyte derived cell line. Cells transfected with RNAi Max.

target	mod type	In Vitro Efficacy (24 hrs)		
		EC50 (nM)	EC50 (R ²)	% KD (10nM)
ApoB(8786)	duplex (2'OH, 5'p)	0.015	0.992	98
ApoB(8786)	single (2'OH, 5'p)	na	na	3
ApoB(8786)	duplex (2'F, 5'p)	0.015	0.999	97
ApoB(8786)	single (2'F, 5'p)	1.188	0.990	91
ApoB(6981)	duplex (2'OH, 5'p)	0.098	0.992	94
ApoB(6981)	single (2'OH, 5'p)	na	na	6
ApoB(6981)	duplex (2'F, 5'p)	0.042	0.997	97
ApoB(6981)	single (2'F, 5'p)	0.890	0.988	89

Table S2: In vivo knockdown measured in mouse livers. Percent knockdown, error (standard deviation), and number of mice per group (N) are shown.

target	mod type	study	dose	day 3			day 2			day 7			day 14			guide strand
				KD (%)	KD (SD)	N										
ApoB (8786)	duplex (2'OH, 5'p)	study 1	3mpk	97	1	5										p;rU;rU;rA;rA;rG;rA;rG;rA;rA;rG;rC;rC;rU;rU;rA;rC;rU;rG;rG;mU;mU
ApoB (8786)	single (2'OH, 5'p)	study 1	3mpk	14	4	5										p;rU;rU;rA;rA;rG;rA;rG;rA;rA;rG;rC;rC;rU;rU;rA;rC;rU;rG;rG;mU;mU
ApoB (8786)	duplex (2'F, 5'p)	study 1	3mpk	98	1	5										p;fU;fU;fA;fA;fG;fA;fG;fA;fA;fG;fC;fC;fU;fU;fA;fC;fU;fG;fG;mU;mU
ApoB (8786)	single (2'F, 5'p)	study 1	3mpk	74	6	5										p;fU;fU;fA;fA;fG;fA;fG;fA;fA;fG;fC;fC;fU;fU;fA;fC;fU;fG;fG;mU;mU
ApoB (6981)	duplex (2'OH, 5'p)	study 1	3mpk	85	5	5										p;rU;rU;rG;rA;rU;rC;rU;rA;rA;rA;rU;rG;rC;rA;rU;rU;rG;rU;rG;mU;mU
ApoB (6981)	single (2'OH, 5'p)	study 1	3mpk	6	12	5										p;rU;rU;rG;rA;rU;rC;rU;rA;rA;rA;rU;rG;rC;rA;rU;rU;rG;rU;rG;mU;mU
ApoB (6981)	duplex (2'F, 5'p)	study 1	3mpk	97	0	5										p;fU;fU;fG;fA;fU;fC;fU;fA;fA;fA;fU;fG;fC;fA;fU;fU;fG;fU;fG;mU;mU
ApoB (6981)	single (2'F, 5'p)	study 1	3mpk	61	6	5										p;fU;fU;fG;fA;fU;fC;fU;fA;fA;fA;fU;fG;fC;fA;fU;fU;fG;fU;fG;mU;mU
ApoB (8786)	duplex (2'F, 5'p)	study 2	6mpk				98	1	5	97	0	5	95	1	5	p;fU;fU;fA;fA;fG;fA;fG;fA;fA;fG;fC;fC;fU;fU;fA;fC;fU;fG;fG;mU;mU
ApoB (8786)	single (2'F, 5'p)	study 2	6mpk				91	1	5	77	4	5	34	14	5	p;fU;fU;fA;fA;fG;fA;fG;fA;fA;fG;fC;fC;fU;fU;fA;fC;fU;fG;fG;mU;mU
ApoB (6981)	duplex (2'F, 5'p)	study 2	6mpk				97	1	5	97	1	5	95	1	5	p;fU;fU;fG;fA;fU;fC;fU;fA;fA;fA;fU;fG;fC;fA;fU;fU;fG;fU;fG;mU;mU
ApoB (6981)	single (2'F, 5'p)	study 2	6mpk				84	8	3	71	3	3	19	4	4	p;fU;fU;fG;fA;fU;fC;fU;fA;fA;fA;fU;fG;fC;fA;fU;fU;fG;fU;fG;mU;mU

Table S3: In vitro knockdown and sequence information for 180 guide strands used in this study. "ss" refers to single strand RNA, "ds" double strand siRNA, "Y" is short for pyrimidine, "R" is short for purine, "m" denotes 2'OMe, "f" denotes 2'F, "r" denotes 2'OH, and "d" denotes 2'H. 5' phosphorylation is noted as "5'p" or "p" and abasic incorporations are noted as "3aba" or "aba".

siRNA ID	guide strand	mod pattern	ds		ds		ss		ss			
			100nM %KD	100nM STDEV	10nM %KD	10nM STDEV	ds 1nM %KD	ds 1nM STDEV	100nM %KD	100nM STDEV	ss 10nM %KD	ss 10nM STDEV
APOB8786-100	p;rU;rU;rA;rA;rG;rA;rG;rA;rA;rG;rC;rC;rU;rU;rA;rC;rU;rG;rG;mU;mU	Y=r, R=r, 5'p	96.95	0.33	98.52	0.39	95.53	0.48	-3.23	14.39	-44.59	20.35
APOB8786-101	p;dT;dT;dA;dA;dG;dA;dG;dA;dA;dG;dC;dC;dT;dT;dA;dC;dT;dG;dG;mU;mU	Y=d, R=d, 5'p	12.00	19.89	21.62	12.36	-5.25	27.05	-38.09	14.03	-30.37	18.07
APOB8786-102	p;fU;fU;fA;fA;fG;fA;fG;fA;fA;fG;fC;fU;fU;fA;fC;fU;fG;fG;mU;mU	Y=f, R=f, 5'p	96.82	0.35	97.96	0.85	94.11	2.83	89.67	3.62	57.52	5.45
APOB8786-103	p;mU;mU;mA;mA;mG;mA;mG;mA;mA;mG;mC;mC;mU;rU;mA;mC;mU;mG;mG;mU;mU	Y=m, R=m, 5'p	88.15	2.46	85.84	1.58	63.65	9.05	-43.61	18.39	-33.00	9.42
APOB8786-104	p;fU;fU;rA;rA;rG;rA;rG;rA;rA;rG;fC;fU;fU;rA;fC;fU;rG;rG;mU;mU	Y=f, R=r, 5'p	97.14	0.37	98.81	0.33	96.20	0.76	86.64	1.63	20.37	11.26
APOB8786-105	p;fU;fU;dA;dA;dG;dA;dG;dA;dA;dG;dC;fC;fU;fU;dA;fC;fU;dG;dG;mU;mU	Y=f, R=d, 5'p	80.80	2.35	84.59	2.95	59.21	2.33	-2.17	12.63	-46.47	6.76
APOB8786-106	p;fU;fU;mA;mA;mG;mA;mG;mA;mA;mG;fC;fU;fU;mA;fC;fU;mG;mG;mU;mU	Y=f, R=m, 5'p	96.65	0.66	97.87	0.52	91.67	2.78	78.23	1.86	-23.06	20.39
APOB8786-107	p;rU;rU;fA;fA;fG;fA;fG;fA;fA;fG;rC;rC;rU;rU;fA;rC;rU;fG;fG;mU;mU	Y=r, R=f, 5'p	96.85	0.64	98.40	0.34	95.88	1.03	42.58	7.19	-11.69	3.86
APOB8786-108	p;dT;dT;fA;fA;fG;fA;fG;fA;fA;fG;dC;dC;dT;dT;fA;dC;dT;fG;fG;mU;mU	Y=d, R=f, 5'p	95.64	0.84	96.21	0.74	90.11	1.07	27.73	14.05	-37.63	4.94
APOB8786-109	p;mU;mU;fA;fA;fG;fA;fG;fA;fA;fG;mC;mC;mU;rU;fA;mC;mU;fG;fG;mU;mU	Y=m, R=f, 5'p	94.35	0.44	96.74	0.52	83.28	4.22	-42.64	11.66	-33.81	4.11
APOB8786-110	rU;rU;rA;rA;rG;rA;rG;rA;rA;rG;rC;rC;rU;rU;rA;rC;rU;rG;rG;mU;mU	Y=r, R=r	97.62	0.43	98.15	0.63	95.79	0.82	-41.42	18.87	-27.04	13.58
APOB8786-111	dT;dT;dA;dA;dG;dA;dG;dA;dA;dG;dC;dC;dT;dT;dA;dC;dT;dG;dG;mU;mU	Y=d, R=d	-2.86	24.82	-8.26	10.52	-19.36	14.94	-40.26	22.41	-31.18	16.28
APOB8786-112	fU;fU;fA;fA;fG;fA;fG;fA;fA;fG;fC;fU;fU;fA;fC;fU;fG;fG;mU;mU	Y=f, R=f	96.02	0.68	98.70	0.37	93.95	2.40	67.18	3.36	-23.53	6.76
APOB8786-113	mU;mU;mA;mA;mG;mA;mG;mA;mA;mG;mC;mC;mU;rU;mA;mC;mU;mG;mG;mU;mU	Y=m, R=m	84.92	2.88	88.17	1.09	52.87	16.66	-45.50	17.28	-38.75	7.11
APOB8786-114	fU;fU;rA;rA;rG;rA;rG;rA;rA;rG;fC;fU;fU;rA;fC;fU;rG;rG;mU;mU	Y=f, R=r	97.53	0.24	98.10	0.36	94.51	2.16	55.33	8.10	-14.81	7.96
APOB8786-115	fU;fU;dA;dA;dG;dA;dG;dA;dA;dG;fC;fU;fU;dA;fC;fU;dG;dG;mU;mU	Y=f, R=d	91.55	0.67	84.66	5.38	33.98	17.01	-40.63	16.80	-31.43	14.64
APOB8786-116	rU;rU;mA;mA;mG;mA;mG;mA;mA;mG;fC;fU;fU;mA;fC;fU;mG;mG;mU;mU	Y=f, R=m	96.84	0.72	97.68	0.79	93.85	1.07	1.86	5.76	-39.27	27.10
APOB8786-117	rU;rU;fA;fA;fG;fA;fG;fA;fA;fG;rC;rC;rU;rU;fA;rC;rU;fG;fG;mU;mU	Y=r, R=f	97.16	0.62	98.31	0.91	94.65	0.14	-16.59	8.12	-26.54	13.26
APOB8786-118	dT;dT;fA;fA;fG;fA;fG;fA;fA;fG;dC;dC;dT;dT;fA;dC;dT;fG;fG;mU;mU	Y=d, R=f	95.29	1.52	96.51	1.61	79.94	6.53	-38.21	30.04	-44.52	13.36
APOB8786-119	mU;mU;fA;fA;fG;fA;fG;fA;fA;fG;mC;mC;mU;rU;fA;mC;mU;fG;fG;mU;mU	Y=m, R=f	94.21	0.57	95.94	0.97	70.29	3.15	1.51	7.68	-52.04	16.63
APOB8786-120	p;aba;aba;aba;rA;rA;rG;rA;rG;rA;rA;rG;rC;rC;rU;rU;rA;rC;rU;rG;rG;mU;mU	Y=r, R=r, 5'p, 3aba	79.75	4.55	80.56	4.25	15.28	17.38	-64.53	32.69	-50.75	5.45
APOB8786-121	p;aba;aba;aba;dA;dG;dA;dG;dA;dA;dG;dC;dC;dT;dT;dA;dC;dT;dG;dG;mU;mU	Y=d, R=d, 5'p, 3aba	0.11	12.58	6.69	18.40	-11.96	13.05	-58.55	27.92	-56.16	13.80
APOB8786-122	p;aba;aba;aba;fA;fG;fA;fG;fA;fA;fG;fC;fU;fU;fA;fC;fU;fG;fG;mU;mU	Y=f, R=f, 5'p, 3aba	93.30	0.49	94.00	1.34	33.23	11.62	-57.91	14.47	-42.28	2.85
APOB8786-123	p;aba;aba;aba;mA;mG;mA;mG;mA;mA;mG;mC;mC;mU;rU;mA;mC;mU;mG;mG;mU;mU	Y=m, R=m, 5'p, 3aba	-12.21	15.10	3.41	11.38	-2.70	10.18	-50.47	18.11	-40.41	21.29
APOB8786-124	p;aba;aba;aba;rA;rA;rG;rA;rG;rA;rA;rG;fC;fU;fU;rA;fC;fU;rG;rG;mU;mU	Y=f, R=r, 5'p, 3aba	90.34	1.82	92.41	1.13	23.55	21.77	-47.40	14.29	-24.48	13.16
APOB8786-125	p;aba;aba;aba;dA;dG;dA;dG;dA;dA;dG;fC;fU;fU;dA;fC;fU;dG;dG;mU;mU	Y=f, R=d, 5'p, 3aba	34.45	23.77	39.34	5.36	-11.72	18.34	-30.55	6.24	-22.56	12.01
APOB8786-126	p;aba;aba;aba;mA;mG;mA;mG;mA;mA;mG;fC;fU;fU;mA;fC;fU;mG;mG;mU;mU	Y=f, R=m, 5'p, 3aba	45.99	13.41	30.04	16.80	-6.84	15.80	-42.85	21.23	-25.40	12.87
APOB8786-127	p;aba;aba;aba;fA;fG;fA;fG;fA;fA;fG;fC;rC;rU;rU;fA;rC;rU;fG;fG;mU;mU	Y=r, R=f, 5'p, 3aba	93.10	1.43	94.57	0.77	50.20	17.71	-65.93	26.43	-31.12	13.37
APOB8786-128	p;aba;aba;aba;fA;fG;fA;fG;fA;fA;fG;dC;dC;dT;dT;fA;dC;dT;fG;fG;mU;mU	Y=d, R=f, 5'p, 3aba	82.24	2.28	84.36	3.33	0.84	8.47	-56.88	24.91	-33.47	13.62
APOB8786-129	p;aba;aba;aba;fA;fG;fA;fG;fA;fA;fG;mC;mC;mU;rU;fA;mC;mU;fG;fG;mU;mU	Y=m, R=f, 5'p, 3aba	90.40	2.00	93.68	1.62	32.22	10.39	-52.96	35.85	-36.61	21.60
APOB6981-100	p;rU;rU;rG;rA;rU;rC;rU;rA;rA;rA;rU;rG;rC;rA;rU;rU;rG;rU;rG;mU;mU	Y=r, R=r, 5'p	94.66	0.53	96.51	0.71	84.89	2.70	-46.35	4.64	-38.63	14.32
APOB6981-101	p;dT;dT;dG;dA;dT;dC;dT;dA;dA;dA;dT;dG;dC;dA;dT;dT;dG;dT;dG;mU;mU	Y=d, R=d, 5'p	12.26	14.63	18.58	14.75	-7.98	12.16	-45.72	17.13	-26.91	20.88
APOB6981-102	p;fU;fU;fG;fA;fU;fC;fU;fA;fA;fU;fG;fC;fA;fU;fU;fG;fU;fG;mU;mU	Y=f, R=f, 5'p	96.00	0.41	97.59	0.81	91.77	1.75	94.55	1.23	68.06	7.93
APOB6981-103	p;mU;mU;mG;mA;mU;mC;mU;mA;mA;mA;mU;mG;mC;rA;mU;mU;mG;mU;mG;mU;mU	Y=m, R=m, 5'p	91.97	1.61	95.14	0.97	72.68	3.67	-48.93	16.66	-27.35	18.92
APOB6981-104	p;fU;fU;rG;rA;fU;fC;fU;rA;rA;rA;fU;rG;fC;rA;fU;fU;rG;fU;rG;mU;mU	Y=f, R=r, 5'p	95.94	1.26	97.85	0.50	93.55	1.44	76.64	4.16	4.57	12.65
APOB6981-105	p;fU;fU;dG;dA;fU;fC;fU;dA;dA;dA;fU;dG;fC;dA;fU;fU;dG;fU;dG;mU;mU	Y=f, R=d, 5'p	74.77	4.19	73.48	7.63	47.36	6.89	-62.65	19.09	-28.10	13.32
APOB6981-106	p;fU;fU;mG;mA;fU;fC;fU;mA;mA;mA;fU;mG;fC;mA;fU;fU;mG;mU;mU	Y=f, R=m, 5'p	69.79	13.41	85.47	4.38	36.56	17.48	-15.78	12.05	-34.58	25.28
APOB6981-107	p;rU;rU;fG;fA;rU;rC;rU;fA;fA;fA;rU;fG;rC;rA;rU;rU;fG;rU;fG;mU;mU	Y=r, R=f, 5'p	96.63	0.39	98.76	0.28	94.51	1.59	42.99	20.74	-18.65	17.97
APOB6981-108	p;dT;dT;fG;fA;dT;dC;dT;fA;fA;fA;dT;fG;dC;fA;dT;dT;fG;dT;fG;mU;mU	Y=d, R=f, 5'p	44.66	4.44	26.18	12.35	12.19	8.23	-74.59	16.51	-25.81	43.55
APOB6981-109	p;mU;mU;fG;fA;mU;mC;mU;fA;fA;fA;fA;fA;fG;mC;rA;mU;mU;fG;mU;mU	Y=m, R=f, 5'p	96.35	0.80	97.42	0.88	92.88	1.44	-15.43	24.50	-40.66	30.83
APOB6981-110	rU;rU;rG;rA;rU;rC;rU;rA;rA;rA;rU;rG;rC;rA;rU;rU;rG;rU;rG;mU;mU	Y=r, R=r	94.32	1.01	95.75	0.72	91.30	1.56	-76.22	15.98	-37.88	16.10
APOB6981-111	dT;dT;dG;dA;dT;dC;dT;dA;dA;dA;dT;dG;dC;dA;dT;dT;dG;dT;dG;mU;mU	Y=d, R=d	18.38	11.02	1.58	12.54	-2.15	19.28	-63.81	19.20	-55.34	21.95
APOB6981-112	fU;fU;fG;fA;fU;fC;fU;fA;fA;fA;fA;fA;fU;fG;fC;fA;fU;fU;fG;fU;fG;mU;mU	Y=f, R=f	95.54	0.10	97.82	0.68	91.52	0.78	85.80	3.49	-16.06	21.16
APOB6981-113	mU;mU;mG;mA;mU;mC;mU;mA;mA;mA;mU;mG;mC;rA;mU;mU;mG;mU;mG;mU;mU	Y=m, R=m	93.25	0.80	94.03	1.32	53.66	9.53	-34.73	14.55	-18.49	13.67
APOB6981-114	fU;fU;rG;rA;fU;fC;fU;rA;rA;rA;rU;rG;fC;rA;fU;fU;rG;fU;rG;mU;mU	Y=f, R=r	96.14	0.66	97.55	1.32	90.66	0.62	-7.05	13.88	-19.86	17.96
APOB6981-115	rU;fU;dG;dA;fU;fC;fU;dA;dA;dA;fU;dG;fC;dA;fU;fU;dG;fU;dG;mU;mU	Y=f, R=d	76.22	2.26	75.25	3.68	17.73	14.12	-35.66	11.69	-23.54	14.66
APOB6981-116	fU;fU;mG;mA;fU;fC;fU;mA;mA;mA;fU;mG;fC;mA;fU;fU;mG;fU;mG;mU;mU	Y=f, R=m	74.30	3.28	73.77	2.51	37.96	15.29	-24.06	10.65	-30.91	5.66
APOB6981-117	rU;rU;fG;fA;rU;rC;rU;fA;fA;fA;rU;fG;rC;rA;fU;rU;rG;fU;fG;mU;mU	Y=r, R=f	97.07	0.29	98.54	0.53	94.03	0.87	-38.37	10.65	-30.75	9.96
APOB6981-118	dT;dT;fG;fA;dT;dC;dT;fA;fA;fA;dT;fG;dC;fA;dT;dT;fG;dT;fG;mU;mU	Y=d, R=f	34.12	7.09	36.81	10.24	10.53	13.95	-47.52	21.06	-36.78	24.95
APOB6981-119	mU;mU;fG;fA;mU;mC;mU;fA;fA;fA;mU;fG;mC;rA;mU;mU;fG;mU;fG;mU;mU	Y=m, R=f	95.77	0.85	96.92	1.22	81.50	3.26	-48.42	11.29	-40.54	10.39

siRNA ID	guide strand	mod pattern	ds		ds		ss		ss			
			100nM %KD	100nM STDEV	10nM %KD	10nM STDEV	ds 1nM %KD	ds 1nM STDEV	100nM %KD	100nM STDEV	ss 10nM %KD	ss 10nM STDEV
APOB6981-120	p;aba;aba;aba;rA;rU;rC;rU;rA;rA;rA;rU;rG;rC;rA;rU;rU;rG;rU;rG;mU;mU	Y=r, R=r, 5'p, 3aba	32.12	2.98	28.67	13.91	5.63	23.56	-64.64	19.45	-47.43	32.99
APOB6981-121	p;aba;aba;aba;dA;dT;dC;dT;dA;dA;dA;dT;dG;dC;dA;dT;dT;dG;dT;dG;mU;mU	Y=d, R=d, 5'p, 3aba	10.62	1.67	14.94	7.73	1.95	14.26	-45.11	12.43	-45.16	31.13
APOB6981-122	p;aba;aba;aba;fA;fU;fC;fU;fA;fA;fA;fU;fG;fC;fA;fU;fU;fG;fU;fG;mU;mU	Y=f, R=f, 5'p, 3aba	91.54	0.81	94.42	1.63	37.24	13.67	22.06	7.96	-31.59	16.20
APOB6981-123	p;aba;aba;aba;mA;mU;mC;mU;mA;mA;mA;mU;mG;mC;rA;mU;mU;mG;mU;mG;mU;mU	Y=m, R=m, 5'p, 3aba	15.30	6.40	23.02	11.63	9.13	19.30	-48.36	12.13	-30.51	11.55
APOB6981-124	p;aba;aba;aba;rA;fU;fC;fU;rA;rA;rA;fU;rG;fC;rA;fU;fU;rG;fU;rG;mU;mU	Y=f, R=r, 5'p, 3aba	81.01	1.80	87.30	3.65	-2.20	17.16	-35.39	15.60	-39.53	13.78
APOB6981-125	p;aba;aba;aba;dA;fU;fC;fU;dA;dA;dA;fU;dG;fC;dA;fU;fU;dG;fU;dG;mU;mU	Y=f, R=d, 5'p, 3aba	66.94	6.45	78.86	8.28	1.64	8.67	-32.35	42.90	-11.55	8.26
APOB6981-126	p;aba;aba;aba;mA;fU;fC;fU;mA;mA;mA;fU;mG;fC;mA;fU;fU;mG;fU;mG;mU;mU	Y=f, R=m, 5'p, 3aba	29.77	10.56	42.73	5.01	-14.76	2.84	-26.67	21.06	-17.25	5.86
APOB6981-127	p;aba;aba;aba;fA;rU;rC;rU;fA;fA;fA;rU;rC;fA;rU;rU;fG;rU;fG;mU;mU	Y=r, R=f, 5'p, 3aba	67.37	6.41	70.83	8.85	3.51	20.24	-60.96	10.74	-19.46	21.72
APOB6981-128	p;aba;aba;aba;fA;dT;dC;dT;fA;fA;fA;dT;fG;dC;fA;dT;dT;fG;dT;fG;mU;mU	Y=d, R=f, 5'p, 3aba	33.35	10.67	37.16	13.53	-6.97	15.98	-44.61	19.30	-26.85	23.42
APOB6981-129	p;aba;aba;aba;fA;mU;mC;mU;fA;fA;fA;mU;fG;mC;rA;mU;mU;fG;mU;fG;mU;mU	Y=m, R=f, 5'p, 3aba	51.92	2.27	43.98	13.48	-6.30	27.92	-51.67	9.65	-25.14	6.76
APOB9470-100	p;rA;rU;rU;rU;rC;rA;rG;rG;rA;rA;rU;rU;rU;rU;rA;rA;rG;mU;mU	Y=r, R=r, 5'p	97.86	0.34	95.04	1.44			23.20	15.18	-16.51	14.89
APOB9470-101	p;dA;dT;dT;dT;dC;dA;dG;dG;dA;dA;dT;dT;dG;dT;dT;dA;dA;dG;mU;mU	Y=d, R=d, 5'p	57.97	3.94	13.91	21.19			13.26	15.75	-17.44	12.56
APOB9470-102	p;fA;fU;fU;fU;fC;fA;fG;fG;fA;fA;fU;fU;fG;fU;fU;fA;fA;fG;mU;mU	Y=f, R=f, 5'p	97.54	0.50	97.21	0.53			74.64	3.89	24.63	5.91
APOB9470-103	p;mA;mU;mU;mU;mC;mA;mG;mG;mA;mA;mU;mU;mG;rU;mU;mA;mA;mG;mU;mU	Y=m, R=m, 5'p	97.78	0.30	92.56	3.36			19.38	10.67	-13.48	14.29
APOB9470-104	p;rA;fU;fU;fU;fC;rA;rG;rA;rA;fU;fU;rG;fU;fU;rA;rA;rA;rG;mU;mU	Y=f, R=r, 5'p	96.62	0.20	91.90	5.11			66.70	3.53	8.71	13.62
APOB9470-105	p;dA;fU;fU;fU;fC;dA;dG;dG;dA;dA;fU;fU;dG;fU;fU;dA;dA;dG;mU;mU	Y=f, R=d, 5'p	54.35	2.18	27.13	16.37			12.20	10.48	-10.96	16.05
APOB9470-106	p;mA;fU;fU;fU;fC;mA;mG;mG;mA;mA;fU;fU;mG;fU;fU;mA;mA;mA;mG;mU;mU	Y=f, R=m, 5'p	96.81	0.36	93.72	2.99			57.79	5.18	-2.13	25.30
APOB9470-107	p;fA;rU;rU;rU;rC;fA;fG;fG;fA;fA;rU;rU;fG;rU;rU;fA;fA;fG;mU;mU	Y=r, R=f, 5'p	98.23	0.26	97.50	0.94			29.40	7.98	-7.94	17.91
APOB9470-108	p;fA;dT;dT;dT;dC;fA;fG;fG;fA;fA;dT;dT;fG;dT;dT;fA;fA;fG;mU;mU	Y=d, R=f, 5'p	69.03	7.11	44.02	12.55			5.91	13.65	-10.65	14.85
APOB9470-109	p;fA;mU;mU;mU;mC;fA;fG;fG;fA;fA;mU;mU;fG;rU;mU;fA;fA;fG;mU;mU	Y=m, R=f, 5'p	97.99	0.31	96.89	1.12			17.08	14.11	-8.66	10.05
APOB9470-110	rA;rU;rU;rU;rC;rA;rG;rA;rA;rU;rU;rG;rU;rA;rA;rA;rG;mU;mU	Y=r, R=r	98.32	1.10	92.16	3.20			12.52	13.89	-10.31	14.64
APOB9470-111	dA;dT;dT;dT;dC;dA;dG;dG;dA;dA;dA;dT;dT;dG;dT;dT;dA;dA;dG;mU;mU	Y=d, R=d	54.79	3.20	5.13	7.76			9.68	11.90	-13.82	13.96
APOB9470-112	fA;fU;fU;fU;fC;fA;fG;fG;fA;fA;fU;fU;fG;fU;fU;fA;fA;fG;mU;mU	Y=f, R=f	97.30	0.40	95.90	0.66			60.43	4.24	-12.75	14.35
APOB9470-113	mA;mU;mU;mU;mC;mA;mG;mG;mA;mA;mU;mU;mG;rU;mU;mA;mA;mG;mU;mU	Y=m, R=m	97.63	0.38	93.06	3.94			12.33	16.15	-17.37	17.54
APOB9470-114	rA;fU;fU;fU;fC;rA;rG;rA;rA;fU;fU;rG;fU;fU;rA;rA;rA;rG;mU;mU	Y=f, R=r	96.81	0.46	91.48	5.46			47.32	6.93	-19.37	13.70
APOB9470-115	dA;fU;fU;fU;fC;dA;dG;dG;dA;dA;fU;fU;dG;fU;fU;dA;dA;dG;mU;mU	Y=f, R=d	64.82	2.23	22.31	6.50			9.78	9.40	-14.28	17.31
APOB9470-116	mA;fU;fU;fU;fC;mA;mG;mG;mA;mA;fU;fU;mG;fU;fU;mA;mA;mA;mG;mU;mU	Y=f, R=m	97.14	0.75	94.13	4.09			41.53	5.97	-5.04	12.70
APOB9470-117	fA;rU;rU;rU;rC;fA;fG;fG;fA;fA;rU;rU;fG;rU;rU;fA;fA;fG;mU;mU	Y=r, R=f	98.43	0.09	93.10	8.97			4.96	12.37	-11.38	14.84
APOB9470-118	fA;dT;dT;dT;dC;fA;fG;fG;fA;fA;dT;dT;fG;dT;dT;fA;fA;fG;mU;mU	Y=d, R=f	96.43	0.43	93.27	3.60			13.19	13.75	-8.24	11.73
APOB9470-119	fA;mU;mU;mU;mC;fA;fG;fG;fA;fA;mU;mU;fG;rU;mU;fA;fA;fG;mU;mU	Y=m, R=f	97.78	0.57	95.36	2.46			14.99	16.61	-0.16	9.21
APOB9470-120	p;aba;aba;aba;rU;rC;rA;rG;rA;rA;rU;rU;rG;rU;rA;rA;rA;rG;mU;mU	Y=r, R=r, 5'p, 3aba	46.66	6.70	-9.95	11.27			9.77	9.10	-14.81	8.02
APOB9470-121	p;aba;aba;aba;dT;dC;dA;dG;dG;dA;dA;dT;dT;dG;dT;dT;dA;dA;dG;mU;mU	Y=d, R=d, 5'p, 3aba	53.94	7.54	32.68	6.48			7.86	20.02	-13.64	9.79
APOB9470-122	p;aba;aba;aba;fU;fC;fA;fG;fG;fA;fA;fU;fU;fG;fU;fU;fA;fA;fG;mU;mU	Y=f, R=f, 5'p, 3aba	94.62	0.62	89.33	1.63			15.76	14.90	-10.41	9.15
APOB9470-123	p;aba;aba;aba;mU;mC;mA;mG;mG;mA;mA;mU;mU;mG;rU;mU;mA;mA;mG;mU;mU	Y=m, R=m, 5'p, 3aba	62.30	6.72	-7.57	8.43			15.02	16.90	-13.25	13.96
APOB9470-124	p;aba;aba;aba;fU;fC;rA;rG;rA;rA;fU;fU;rG;fU;fU;rA;rA;rA;rG;mU;mU	Y=f, R=r, 5'p, 3aba	60.53	2.42	21.59	10.31			14.75	13.66	-18.26	8.66
APOB9470-125	p;aba;aba;aba;fU;fC;dA;dG;dG;dA;dA;fU;fU;dG;fU;fU;dA;dA;dA;dG;mU;mU	Y=f, R=d, 5'p, 3aba	45.70	7.21	1.51	25.94			12.48	12.41	-20.20	13.95
APOB9470-126	p;aba;aba;aba;fU;fC;mA;mG;mG;mA;mA;fU;fU;mG;fU;fU;mA;mA;mA;mG;mU;mU	Y=f, R=m, 5'p, 3aba	68.81	4.04	-1.15	14.27			13.55	14.25	-19.41	13.64
APOB9470-127	p;aba;aba;aba;rU;rC;fA;fG;fG;fA;fA;rU;rU;fG;rU;rU;fA;fA;fG;mU;mU	Y=r, R=f, 5'p, 3aba	90.42	0.51	71.62	11.77			10.79	12.86	-6.23	13.00
APOB9470-128	p;aba;aba;aba;dT;dC;fA;fG;fG;fA;fA;dT;dT;fG;dT;dT;fA;fA;fG;mU;mU	Y=d, R=f, 5'p, 3aba	88.92	1.37	70.88	11.30			4.20	24.33	-11.90	11.83
APOB9470-129	p;aba;aba;aba;mU;mC;fA;fG;fG;fA;fA;mU;mU;fG;rU;mU;fA;fA;fG;mU;mU	Y=m, R=f, 5'p, 3aba	61.59	4.77	49.21	18.11			11.43	14.13	-9.39	11.86
APOB10127-100	p;rU;rU;rG;rU;rA;rU;rU;rC;rA;rG;rU;rU;rG;rA;rA;rA;rG;mU;mU	Y=r, R=r, 5'p	95.33	0.93	94.24	1.05			18.03	18.83	-34.85	19.52
APOB10127-101	p;dT;dT;dG;dG;dT;dA;dT;dT;dC;dA;dG;dT;dG;dT;dG;dA;dT;dG;dA;mU;mU	Y=d, R=d, 5'p	70.29	2.63	43.28	16.75			18.05	12.70	-33.21	17.48
APOB10127-102	p;fU;fU;fG;fG;fU;fA;fU;fU;fC;fA;fG;fU;fG;fA;fU;fG;fA;fU;fG;mU;mU	Y=f, R=f, 5'p	92.19	1.28	93.32	0.56			65.11	7.63	-6.08	11.02
APOB10127-103	p;mU;mU;mG;mG;mU;mA;mU;mU;mC;mA;mG;mG;mA;mU;mU;mG;rU;mU;mA;mA;mG;mU;mU	Y=m, R=m, 5'p	95.91	1.00	94.42	2.28			11.25	13.89	-33.15	13.97
APOB10127-104	p;fU;fU;rG;rG;rA;rA;fU;fU;fC;rA;rG;rU;rG;fU;rG;rA;rA;rA;rG;mU;mU	Y=f, R=r, 5'p	94.30	1.04	93.00	0.59			50.53	7.64	-28.69	11.20
APOB10127-105	p;fU;fU;dG;dG;fU;dA;fU;fU;fC;dA;dG;fU;dG;fU;dG;dA;fU;dG;dA;mU;mU	Y=f, R=d, 5'p	92.16	0.97	79.47	14.02			8.92	10.16	-33.21	10.58
APOB10127-106	p;fU;fU;mG;mG;fU;mA;fU;fU;fC;mA;mG;fU;mG;fU;mG;mA;fU;mG;mA;mU;mU	Y=f, R=m, 5'p	93.62	1.28	93.87	1.56			51.65	5.09	-22.83	15.89
APOB10127-107	p;rU;rU;fG;fG;rA;rA;rU;rU;rC;fA;fG;rU;rG;fU;rG;fA;fU;fG;fA;mU;mU	Y=r, R=f, 5'p	88.23	2.21	87.46	1.54			13.93	17.10	-31.29	12.96
APOB10127-108	p;dT;dT;fG;fG;dT;fA;dT;dT;dC;fA;fG;dT;fG;dT;fG;fA;dT;fG;fA;mU;mU	Y=d, R=f, 5'p	93.60	0.87	92.38	1.82			10.08	16.25	-31.09	17.53
APOB10127-109	p;mU;mU;fG;fG;mU;fA;mU;mU;mC;fA;fG;mU;fG;mU;fG;rU;rG;rA;rA;rA;rG;mU;mU	Y=m, R=f, 5'p	95.29	0.79	96.28	0.36			18.63	9.30	-19.70	14.46
APOB10127-110	rU;rU;rG;rU;rA;rU;rU;rC;rA;rG;rU;rG;rU;rG;rA;rU;rG;rA;rA;rG;mU;mU	Y=r, R=r	95.39	0.77	95.13	0.54			29.56	13.29	-15.05	13.54
APOB10127-111	dT;dT;dG;dG;dT;dA;dT;dT;dC;dA;dG;dT;dG;dT;dG;dA;dT;dG;dA;mU;mU	Y=d, R=d	83.65	3.29	43.07	18.29			30.65	3.41	-22.56	6.95
APOB10127-112	fU;fU;fG;fG;fU;fA;fU;fU;fC;fA;fG;fU;fG;fU;fG;fA;fU;fG;fA;mU;mU	Y=f, R=f	91.93	1.66	92.48	1.86			33.15	13.46	-13.54	9.09
APOB10127-113	mU;mU;mG;mG;mU;mA;mU;mU;mC;mA;mG;mU;mG;rU;mG;mA;mU;mG;mA;mU;mU	Y=m, R=m	96.57	0.59	94.55	0.77			16.98	18.00	-15.25	13.03

siRNA ID	guide strand	mod pattern	ds		ds		ss		ss			
			100nM %KD	100nM STDEV	10nM %KD	10nM STDEV	ds 1nM %KD	ds 1nM STDEV	100nM %KD	100nM STDEV	ss 10nM %KD	ss 10nM STDEV
APOB10127-114	fU;fU;rG;rG;fU;rA;fU;fU;fC;rA;rG;fU;rG;fU;rG;rA;fU;rG;rA;mU;mU	Y=f, R=r	94.33	1.52	94.45	0.92			20.20	8.43	-11.89	13.29
APOB10127-115	fU;fU;dG;dG;fU;dA;fU;fU;fC;dA;dG;fU;dG;fU;dG;dA;fU;dG;dA;mU;mU	Y=f, R=d	92.58	2.56	79.86	11.97			12.12	10.84	-25.52	11.26
APOB10127-116	fU;fU;mG;mG;fU;mA;fU;fU;fC;mA;mG;fU;mG;fU;mG;mA;fU;mG;mA;mU;mU	Y=f, R=m	93.59	0.89	89.04	8.19			43.72	8.64	-22.31	13.08
APOB10127-117	rU;rU;fG;fG;rU;rA;rU;rU;rC;fA;fG;rU;rG;rU;rG;fA;rU;rG;fA;mU;mU	Y=r, R=f	87.90	2.67	90.43	1.01			2.72	9.94	-21.56	13.54
APOB10127-118	dT;dT;fG;fG;dT;fA;dT;dT;dC;fA;fG;dT;fG;dT;fG;fA;dT;fG;fA;mU;mU	Y=d, R=f	93.97	1.27	90.36	5.45			6.94	9.85	-18.83	16.49
APOB10127-119	mU;mU;fG;fG;mU;fA;mU;mU;mC;fA;fG;mU;fG;rU;fG;fA;mU;fG;fA;mU;mU	Y=m, R=f	94.94	0.73	89.54	11.43			8.28	10.53	-16.34	14.38
APOB10127-120	p;aba;aba;aba;rG;rU;rA;rU;rU;rC;rA;rG;rU;rG;rU;rG;rA;rU;rG;rA;mU;mU	Y=r, R=r, 5p, 3aba	70.58	2.86	18.48	17.45			14.50	14.64	-13.66	13.33
APOB10127-121	p;aba;aba;aba;dG;dT;dA;dT;dT;dC;dA;dG;dT;dG;dT;dG;dA;dT;dG;dA;mU;mU	Y=d, R=d, 5p, 3aba	53.90	5.04	28.43	10.36			15.89	13.64	-14.02	19.48
APOB10127-122	p;aba;aba;aba;fG;fU;fA;fU;fU;fC;fA;fG;fU;fG;fU;fG;fA;fU;fG;fA;mU;mU	Y=f, R=f, 5p, 3aba	81.11	4.19	56.38	4.28			11.99	12.75	-6.68	16.24
APOB10127-123	p;aba;aba;aba;mG;mU;mA;mU;mU;mC;mA;mG;mU;mG;rU;mG;mA;mU;mG;mA;mU;mU	Y=m, R=m, 5p, 3aba	84.93	1.64	30.38	13.88			19.26	8.20	-14.92	7.84
APOB10127-124	p;aba;aba;aba;rG;rU;rA;fU;fU;fC;rA;rG;fU;rG;fU;rG;rA;fU;rG;rA;mU;mU	Y=f, R=r, 5p, 3aba	59.99	6.67	22.46	4.33			5.86	15.91	-12.94	11.34
APOB10127-125	p;aba;aba;aba;dG;fU;dA;fU;fU;fC;dA;dG;fU;dG;fU;dG;dA;fU;dG;dA;mU;mU	Y=f, R=d, 5p, 3aba	60.63	5.03	23.44	23.86			6.06	9.23	-11.21	15.27
APOB10127-126	p;aba;aba;aba;mG;fU;mA;fU;fU;fC;mA;mG;fU;mG;fU;mG;mA;fU;mG;mA;mU;mU	Y=f, R=m, 5p, 3aba	74.71	2.31	30.20	0.55			5.87	17.86	-13.71	14.67
APOB10127-127	p;aba;aba;aba;fG;rU;rA;rU;rU;rC;fA;fG;rU;rG;fU;fG;fA;rU;fG;fA;mU;mU	Y=r, R=f, 5p, 3aba	66.88	6.51	4.33	20.82			6.65	17.34	-15.71	5.33
APOB10127-128	p;aba;aba;aba;fG;dT;fA;dT;dT;dC;fA;fG;dT;fG;dT;fG;fA;dT;fG;fA;mU;mU	Y=d, R=f, 5p, 3aba	58.32	4.80	14.87	11.04			8.83	15.45	-22.23	11.24
APOB10127-129	p;aba;aba;aba;fG;mU;fA;mU;mU;mC;fA;fG;mU;fG;rU;rG;fA;mU;fG;fA;mU;mU	Y=m, R=f, 5p, 3aba	83.22	1.25	41.89	4.44			7.90	19.66	-12.96	14.13
SSB386-100	p;rU;rU;rA;rC;rA;rU;rU;rA;rA;rG;rU;rC;rU;rG;rU;rU;rG;rU;mU;mU	Y=r, R=r, 5p	91.33	1.55	89.40	3.32			16.06	3.73	12.07	1.35
SSB386-101	p;dT;dT;dA;dC;dA;dT;dT;dA;dA;dA;dG;dT;dC;dT;dG;dT;dG;dT;mU;mU	Y=d, R=d, 5p	64.30	6.34	78.74	7.43			-3.62	5.06	0.19	2.67
SSB386-102	p;fU;fU;fA;fC;fA;fU;fU;fA;fA;fA;fG;fU;fC;fU;fU;fU;fU;fU;fU;mU;mU	Y=f, R=f, 5p	90.57	0.98	89.30	2.30			66.56	4.55	41.96	9.67
SSB386-103	p;mU;mU;mA;mC;mA;mU;mU;mA;mA;mG;mU;mC;rU;mG;mU;mU;mG;mU;mU;mU	Y=m, R=m, 5p	88.27	1.93	88.19	1.91			9.07	3.44	3.32	5.24
SSB386-104	p;fU;fU;rA;fC;rA;fU;fU;rA;rA;rA;rG;fU;fC;fU;rG;fU;fU;rG;fU;mU;mU	Y=f, R=r, 5p	91.63	0.64	90.87	1.03			59.15	6.54	25.28	5.77
SSB386-105	p;fU;fU;dA;fC;dA;fU;fU;dA;dA;dA;dG;fU;fC;fU;fU;fU;fU;fU;fU;mU;mU	Y=f, R=d, 5p	74.93	3.51	80.03	2.23			0.05	4.34	2.46	2.26
SSB386-106	p;fU;fU;mA;fC;mA;fU;fU;mA;mA;mA;mG;fU;fC;fU;mG;fU;fU;mG;fU;mU;mU	Y=f, R=m, 5p	92.80	1.42	91.97	1.85			74.61	4.95	35.48	5.52
SSB386-107	p;rU;rU;rA;rC;rA;rU;rU;rA;fA;fA;fG;rU;rC;rU;rG;rU;rU;rG;rU;mU;mU	Y=r, R=f, 5p	91.20	1.32	89.06	1.74			39.30	8.44	10.12	3.10
SSB386-108	p;dT;dT;fA;dC;fA;dT;dT;fA;fA;fG;dT;dC;dT;fG;dT;fG;dT;mU;mU	Y=d, R=f, 5p	63.24	4.85	68.97	2.75			5.54	1.02	2.83	5.27
SSB386-109	p;mU;mU;fA;mC;fA;mU;mU;fA;fA;fG;mU;mC;rU;fG;mU;mU;fG;mU;mU;mU	Y=m, R=f, 5p	87.66	2.03	85.88	3.19			15.53	2.19	5.20	1.67
SSB386-110	rU;rU;rA;rC;rA;rU;rU;rA;rA;rA;rG;rU;rC;rU;rG;rU;rU;rG;rU;mU;mU	Y=r, R=r	92.95	1.34	90.57	2.29			11.16	1.95	5.22	4.04
SSB386-111	dT;dT;dA;dC;dA;dT;dT;dA;dA;dA;dG;dT;dC;dG;dT;dT;dG;dT;mU;mU	Y=d, R=d	36.37	5.22	58.60	3.37			5.18	11.54	3.94	3.27
SSB386-112	fU;fU;fA;fC;fA;fU;fU;fA;fA;fA;fG;fU;fC;fU;fG;fU;fU;fG;fU;mU;mU	Y=f, R=f	91.35	1.58	88.41	1.83			18.33	4.36	5.60	2.36
SSB386-113	mU;mU;mA;mC;mA;mU;mU;mA;mA;mA;mG;mU;mC;rU;mG;mU;mU;mG;mU;mU;mU	Y=m, R=m	89.53	1.90	86.05	1.95			-0.94	6.10	0.78	7.15
SSB386-114	fU;fU;rA;fC;rA;fU;fU;rA;rA;rA;rG;fU;fC;fU;rG;fU;fU;rG;fU;mU;mU	Y=f, R=r	92.62	0.74	90.82	1.04			10.35	2.50	4.17	1.43
SSB386-115	fU;fU;dA;fC;dA;fU;fU;dA;dA;dA;dG;fU;fC;fU;dG;fU;fU;dG;fU;mU;mU	Y=f, R=d	76.42	2.60	75.59	2.01			2.48	4.15	2.46	5.36
SSB386-116	fU;fU;mA;fC;mA;fU;fU;mA;mA;mA;mG;fU;fC;fU;mG;fU;fU;mG;fU;mU;mU	Y=f, R=m	94.37	1.12	92.98	1.23			33.07	5.29	11.07	4.24
SSB386-117	rU;rU;rA;rC;rA;rU;rU;rA;fA;fA;fG;rU;rC;rU;fG;rU;rU;rG;rU;mU;mU	Y=r, R=f	92.73	0.68	91.31	1.05			12.00	0.67	2.28	3.84
SSB386-118	dT;dT;fA;dC;fA;dT;dT;fA;fA;fG;dT;dC;dT;fG;dT;fG;dT;mU;mU	Y=d, R=f	67.24	4.15	64.22	0.93			9.55	2.08	2.90	3.30
SSB386-119	mU;mU;fA;mC;fA;mU;mU;fA;fA;fA;fG;mU;mC;rU;fG;mU;mU;fG;mU;mU;mU	Y=m, R=f	89.08	1.73	84.46	2.18			11.75	1.70	1.41	3.69
SSB386-120	p;aba;aba;aba;rC;rA;rU;rU;rA;rA;rA;rG;rU;rC;rU;rG;rU;rU;rG;rU;mU;mU	Y=r, R=r, 5p, 3aba	54.00	3.74	48.47	5.20			12.95	2.09	-0.59	1.58
SSB386-121	p;aba;aba;aba;dC;dA;dT;dT;dA;dA;dA;dG;dT;dC;dT;dG;dT;dG;dT;mU;mU	Y=d, R=d, 5p, 3aba	18.64	4.53	49.90	1.72			12.73	3.18	2.42	2.89
SSB386-122	p;aba;aba;aba;fC;fA;fU;fU;fA;fA;fA;fG;fU;fC;fU;fG;fU;fU;fU;mU;mU	Y=f, R=f, 5p, 3aba	77.39	4.34	78.85	14.58			12.74	3.79	7.35	6.40
SSB386-123	p;aba;aba;aba;mC;mA;mU;mU;mA;mA;mA;mG;mU;mC;rU;mG;mU;mU;mG;mU;mU;mU	Y=m, R=m, 5p, 3aba	69.98	3.86	49.92	2.22			11.03	3.70	6.60	3.87
SSB386-124	p;aba;aba;aba;fC;rA;fU;fU;rA;rA;rA;rG;fU;fC;fU;rG;fU;fU;rG;fU;mU;mU	Y=f, R=r, 5p, 3aba	65.06	4.73	67.46	3.62			3.14	2.07	3.64	5.04
SSB386-125	p;aba;aba;aba;fC;dA;fU;fU;dA;dA;dA;dG;fU;fC;fU;dG;fU;fU;dG;fU;mU;mU	Y=f, R=d, 5p, 3aba	32.43	5.01	50.27	3.93			2.60	0.63	6.01	4.90
SSB386-126	p;aba;aba;aba;fC;mA;fU;fU;mA;mA;mA;mG;fU;fC;fU;mG;fU;fU;mG;fU;mU;mU	Y=f, R=m, 5p, 3aba	81.10	2.19	79.41	3.01			4.66	3.02	2.56	3.29
SSB386-127	p;aba;aba;aba;rC;rA;rU;rU;rA;fA;fA;fG;rU;rC;rU;fG;rU;rU;rG;rU;mU;mU	Y=r, R=f, 5p, 3aba	70.54	3.70	73.27	2.32			7.13	3.95	6.69	2.25
SSB386-128	p;aba;aba;aba;dC;fA;dT;dT;fA;fA;fG;dT;dC;dT;fG;dT;fG;dT;mU;mU	Y=d, R=f, 5p, 3aba	31.50	6.12	67.94	2.87			8.66	2.52	3.24	1.34
SSB386-129	p;aba;aba;aba;mC;fA;mU;mU;fA;fA;fA;fG;mU;mC;rU;fG;mU;mU;fG;mU;mU;mU	Y=m, R=f, 5p, 3aba	59.81	5.65	48.19	1.65			7.65	2.73	2.36	2.64
SSB963-100	p;rU;rU;rU;rA;rU;rU;rU;rC;rA;rC;rA;rU;rG;rA;rU;rU;rU;rU;rU;rU;mU	Y=r, R=r, 5p	95.08	0.83	93.09	1.16			9.65	5.27	7.05	1.96
SSB963-101	p;dT;dT;dT;dA;dT;dT;dT;dC;dA;dC;dC;dA;dT;dG;dA;dT;dT;dT;mU;mU	Y=d, R=d, 5p	30.09	3.88	46.52	3.50			12.54	5.23	2.37	3.16
SSB963-102	p;fU;fU;fU;fA;fU;fU;fU;fC;fA;fC;fA;fU;fG;fA;fU;fU;fU;mU;mU	Y=f, R=f, 5p	95.82	1.30	92.80	1.73			75.81	3.30	32.82	5.51
SSB963-103	p;mU;mU;mU;mA;mU;mU;mU;mC;mA;mC;mA;mC;mA;rU;mG;mA;mU;mU;mU;mU	Y=m, R=m, 5p	79.02	2.26	72.84	2.50			14.48	3.55	4.70	4.03
SSB963-104	p;fU;fU;fU;fA;fU;fU;fU;fC;rA;fC;fC;rA;fU;rG;rA;fU;fU;fU;mU;mU	Y=f, R=r, 5p	96.20	1.38	94.18	1.24			68.54	8.20	18.68	6.28
SSB963-105	p;fU;fU;fU;fU;dA;fU;fU;fU;fC;dA;fC;dA;fU;dG;dA;fU;fU;fU;mU;mU	Y=f, R=d, 5p	95.34	1.26	92.80	0.92			19.19	4.41	3.27	3.37
SSB963-106	p;fU;fU;fU;fU;mA;fU;fU;fU;fC;mA;fC;fC;mA;fU;mG;mA;fU;fU;mU;mU	Y=f, R=m, 5p	95.54	1.25	92.98	1.03			43.84	11.28	13.88	4.00
SSB963-107	p;rU;rU;rU;rU;rA;rU;rU;rU;rC;rA;rC;rA;rU;rG;fA;rU;rU;rU;mU;mU	Y=r, R=f, 5p	95.54	0.66	91.47	1.18			18.05	4.35	5.36	1.59

siRNA ID	guide strand	mod pattern	ds		ds		ss		ss			
			100nM %KD	100nM STDEV	10nM %KD	10nM STDEV	ds 1nM %KD	ds 1nM STDEV	100nM %KD	100nM STDEV	ss 10nM %KD	ss 10nM STDEV
SSB963-108	p;dT;dT;dT;dT;fA;dT;dT;dC;fA;dC;dC;fA;dT;fG;fA;dT;dT;mU;mU	Y=d, R=f, 5'p	78.67	4.68	73.80	7.24			2.75	5.67	3.88	12.33
SSB963-109	p;mU;mU;mU;mU;fA;mU;mU;mU;mC;fA;mC;mC;fA;rU;fG;fA;mU;mU;mU;mU	Y=m, R=f, 5'p	91.11	2.07	89.08	1.47			8.13	2.87	4.69	5.65
SSB963-110	rU;rU;rU;rU;rA;rU;rU;rC;rA;rC;rA;rU;rG;rA;rU;rU;mU;mU	Y=r, R=r	95.16	0.69	93.16	0.95			7.91	1.95	4.44	4.51
SSB963-111	dT;dT;dT;dT;dA;dT;dT;dC;dA;dC;dC;dA;dT;dG;dA;dT;dT;mU;mU	Y=d, R=d	31.27	6.55	42.39	2.50			5.85	3.18	6.61	3.42
SSB963-112	fU;fU;fU;fU;fA;fU;fU;fU;fC;fA;fC;fC;fA;fU;fG;fA;fU;fU;mU;mU	Y=f, R=f	95.96	1.02	93.42	0.98			25.26	11.11	7.26	3.25
SSB963-113	mU;mU;mU;mU;mA;mU;mU;mU;mC;mA;mC;mC;mA;rU;mG;mA;mU;mU;mU;mU	Y=m, R=m	79.33	2.98	69.90	3.97			10.47	3.23	5.38	4.06
SSB963-114	fU;fU;fU;fU;rA;fU;fU;fU;fC;rA;fC;fC;rA;rG;rA;fU;fU;mU;mU	Y=f, R=r	96.51	0.94	93.43	1.43			33.75	5.20	9.15	3.51
SSB963-115	fU;fU;fU;fU;dA;fU;fU;fU;fC;dA;fC;fC;dA;fU;dG;dA;fU;fU;mU;mU	Y=f, R=d	95.96	1.10	92.24	1.55			15.19	4.00	5.84	2.86
SSB963-116	fU;fU;fU;fU;mA;fU;fU;fU;fC;mA;fC;fC;mA;fU;mG;mA;fU;fU;mU;mU	Y=f, R=m	95.72	1.60	93.28	1.30			25.87	3.96	11.19	2.26
SSB963-117	rU;rU;rU;rU;rA;rU;rU;rC;rA;rC;rA;rU;fG;fA;rU;rU;mU;mU	Y=r, R=f	96.07	0.70	93.72	0.96			15.91	2.41	-1.03	16.33
SSB963-118	dT;dT;dT;dT;fA;dT;dT;dC;fA;dC;dC;fA;dT;fG;fA;dT;dT;mU;mU	Y=d, R=f	76.93	5.75	74.70	4.25			15.86	4.08	7.44	3.18
SSB963-119	mU;mU;mU;mU;fA;mU;mU;mU;mC;fA;mC;mC;fA;rU;fG;fA;mU;mU;mU;mU	Y=m, R=f	91.78	1.47	87.07	1.46			15.27	3.77	8.93	4.73
SSB963-120	p;aba;aba;aba;rU;rA;rU;rU;rC;rA;rC;rA;rU;rG;rA;rU;rU;mU;mU	Y=r, R=r, 5'p, 3aba	47.26	7.81	39.80	4.23			3.20	3.40	0.20	6.28
SSB963-121	p;aba;aba;aba;dT;dA;dT;dT;dC;dA;dC;dC;dA;dT;dG;dA;dT;dT;mU;mU	Y=d, R=d, 5'p, 3aba	12.07	4.88	26.16	4.08			4.58	1.26	1.02	5.50
SSB963-122	p;aba;aba;aba;fU;fA;fU;fU;fC;fA;fC;fC;fA;fU;fG;fA;fU;fU;mU;mU	Y=f, R=f, 5'p, 3aba	61.82	5.24	64.71	5.07			5.21	1.85	0.83	12.77
SSB963-123	p;aba;aba;aba;mU;mA;mU;mU;mC;mA;mC;mC;mA;rU;mG;mA;mU;mU;mU;mU	Y=m, R=m, 5'p, 3aba	60.06	4.16	32.24	2.99			5.38	2.30	6.61	0.92
SSB963-124	p;aba;aba;aba;fU;rA;fU;fU;fC;rA;fC;fC;rA;fU;rG;rA;fU;fU;mU;mU	Y=f, R=r, 5'p, 3aba	1.88	2.87	5.72	1.27			8.64	2.57	5.17	1.84
SSB963-125	p;aba;aba;aba;fU;dA;fU;fU;fU;fC;dA;fC;fC;dA;fU;dG;dA;fU;fU;mU;mU	Y=f, R=d, 5'p, 3aba	52.10	8.61	60.40	3.50			5.24	2.74	4.37	6.01
SSB963-126	p;aba;aba;aba;fU;mA;fU;fU;fU;fC;mA;fC;fC;mA;fU;mG;mA;fU;fU;mU;mU	Y=f, R=m, 5'p, 3aba	66.52	4.83	65.16	5.04			5.88	6.29	7.54	2.60
SSB963-127	p;aba;aba;aba;rU;fA;rU;rU;rC;rA;rC;rA;rU;fG;fA;rU;rU;mU;mU	Y=r, R=f, 5'p, 3aba	41.97	4.22	44.11	5.05			11.16	3.66	4.05	2.74
SSB963-128	p;aba;aba;aba;dT;fA;dT;dT;dC;fA;dC;dC;fA;dT;fG;fA;dT;dT;mU;mU	Y=d, R=f, 5'p, 3aba	28.25	1.56	42.17	2.76			13.97	3.04	4.85	5.91
SSB963-129	p;aba;aba;aba;mU;fA;mU;mU;mU;mC;fA;mC;mC;fA;rU;fG;fA;mU;mU;mU;mU	Y=m, R=f, 5'p, 3aba	58.65	4.84	40.77	3.28			13.96	1.31	5.99	3.43

Table S4: Passenger strands used in this study.

siRNA ID	passenger strand
APOB8786	iB;rC;rC;rA;rG;rU;rA;rA;rG;rG;rC;rU;rU;rC;rU;rC;rU;rU;rA;rA;mU;mU;iB
APOB6981	iB;rC;rA;rC;rA;rA;rU;rG;rC;rA;rU;rU;rU;rA;rG;rA;rU;rC;rA;rA;mU;mU;iB
APOB10127	iB;rU;rC;rA;rU;rC;rA;rC;rA;rC;rU;rG;rA;rA;rU;rA;rC;rC;rA;rA;mU;mU;iB
APOB9470	iB;rC;rU;rU;rU;rA;rA;rC;rA;rA;rU;rU;rC;rC;rU;rG;rA;rA;rA;rU;mU;mU;iB
SSB386	iB;rA;rC;rA;rA;rC;rA;rG;rA;rC;rU;rU;rU;rA;rA;rU;rG;rU;rA;rA;mU;mU;iB
SSB963	iB;rA;rA;rA;rU;rC;rA;rU;rG;rG;rU;rG;rA;rA;rA;rU;rA;rA;rA;rA;mU;mU;iB

Table S5: DNA primers used for 5'RACE (see Figure 6).

name	sequence	amplicon size*	ApoB site**
rev1	GGCATTGTGCTCACCGATCATTCTGCCTT	358	9153
rev1n	GAGCAGTGCCCGACCATTGGCTGTT	319	9114
rev2	CTCCGTGTAAGGCAAGTTAATTTTCAGGAATTGTT	712	9507
rev2n	CCAGGTTGGCATCTCCATTCATTCTATA	659	9454
GeneRacer5'	CGACTGGAGCACGAGGACACTGA		
GeneRacer5' Nested	GGACACTGACATGGACTGAAGGAGTA		

* amplicon size calculated based on predicted cleavage site of ApoB (8786) siRNA

** site relative to NM009693