

**Supplementary Table 1. Fold change of miR-33 heptamer-matched genes in the liver after 4 weeks of treatment**

Gene id	Gene Title	Fold Change	P-Value
ABCA1	ATP-binding cassette, sub-family A (ABC1), member 1	1.46	0.0041
RGS5	regulator of G-protein signaling 5	1.36	0.0297
SLC22A23	solute carrier family 22, member 23	1.29	0.0069
C1orf158	chromosome 1 open reading frame 158	1.28	0.0044
PIN4	(peptidylprolyl cis/trans isomerase) NIMA-interacting, 4 (parvulin)	1.27	0.0006
FLT1	fms-related tyrosine kinase 1 (VEGF/vascular permeability factor receptor)	1.26	0.0085
CLEC10A	C-type lectin domain family 10, member A	1.26	0.0023
STS	steroid sulfatase (microsomal), isozyme S	1.26	0.0047
IRAK3	interleukin-1 receptor-associated kinase 3	1.23	0.0166
EFNA5	ephrin-A5	1.23	0.0350
PAX5	paired box 5	1.21	0.0179
ABAT	4-aminobutyrate aminotransferase	1.21	0.0393
ATP2B2	ATPase, Ca <sup>++</sup> transporting, plasma membrane 2	1.21	0.0295
ZNF300	zinc finger protein 300	1.21	0.0110
THSD4	thrombospondin, type I, domain containing 4	1.20	0.0246
TMEM133	transmembrane protein 133	1.20	0.0431
SCN1A	sodium channel, voltage-gated, type I, alpha subunit	1.20	0.0460
COLQ	collagen-like tail subunit of asymmetric acetylcholinesterase	1.20	0.0159
SIRPG	signal-regulatory protein gamma	1.20	0.0145
CRHR2	corticotropin releasing hormone receptor 2	1.19	0.0276
CNPY1	canopy 1 homolog (zebrafish)	1.19	0.0024
LPCAT2	lysophosphatidylcholine acyltransferase 2	1.19	0.0167
NTRK2	neurotrophic tyrosine kinase, receptor, type 2	1.19	0.0041
RCN1	reticulocalbin 1, EF-hand calcium binding domain	1.19	0.0228
GOPC	golgi-associated PDZ and coiled-coil motif containing	1.18	0.0330
FAM81A	family with sequence similarity 81, member A	1.18	0.0253
S100A7A	S100 calcium binding protein A7A	1.17	0.0125
PURB	purine-rich element binding protein B	1.17	0.0313
RTKN2	rhotekin 2	1.17	0.0036
SLC26A1	solute carrier family 26 (sulfate transporter), member 1	1.17	0.0155
CRY2	cryptochrome 2 (photolyase-like)	1.17	0.0054
DPPA4	developmental pluripotency associated 4	1.17	0.0370
SPDYE1	speedy homolog E1 ( <i>Xenopus laevis</i> )	1.17	0.0216
OPN4	opsin 4	1.16	0.0398
C19orf25	chromosome 19 open reading frame 25	1.16	0.0358
SERPINA9	serpin peptidase inhibitor, clade A ( $\alpha$ 1 antitrypsin, antitrypsin), member 9	1.15	0.0340
KCNH8	potassium voltage-gated channel, subfamily H (eag-related), member 8	1.15	0.0129
TNFRSF11A	TNF receptor superfamily, member 11a, NFkB activator	1.15	0.0221
VTCN1	V-set domain containing T cell activation inhibitor 1	1.15	0.0394
ZFAT	zinc finger and AT hook domain containing	1.15	0.0298
CDRT4	CMT1A duplicated region transcript 4	1.15	0.0447
C16orf57	chromosome 16 open reading frame 57	1.15	0.0114
DIRAS2	DIRAS family, GTP-binding RAS-like 2	1.15	0.0108

Fold change of miR-33 heptamer matched target genes in livers of anti-miR-33 vs control anti-miR treated monkeys (n=6) with an uncorrected p value of <0.05.

**Supplementary Table 2. Fold change of miR-33 heptamer-matched genes in the liver after 12 weeks of treatment**

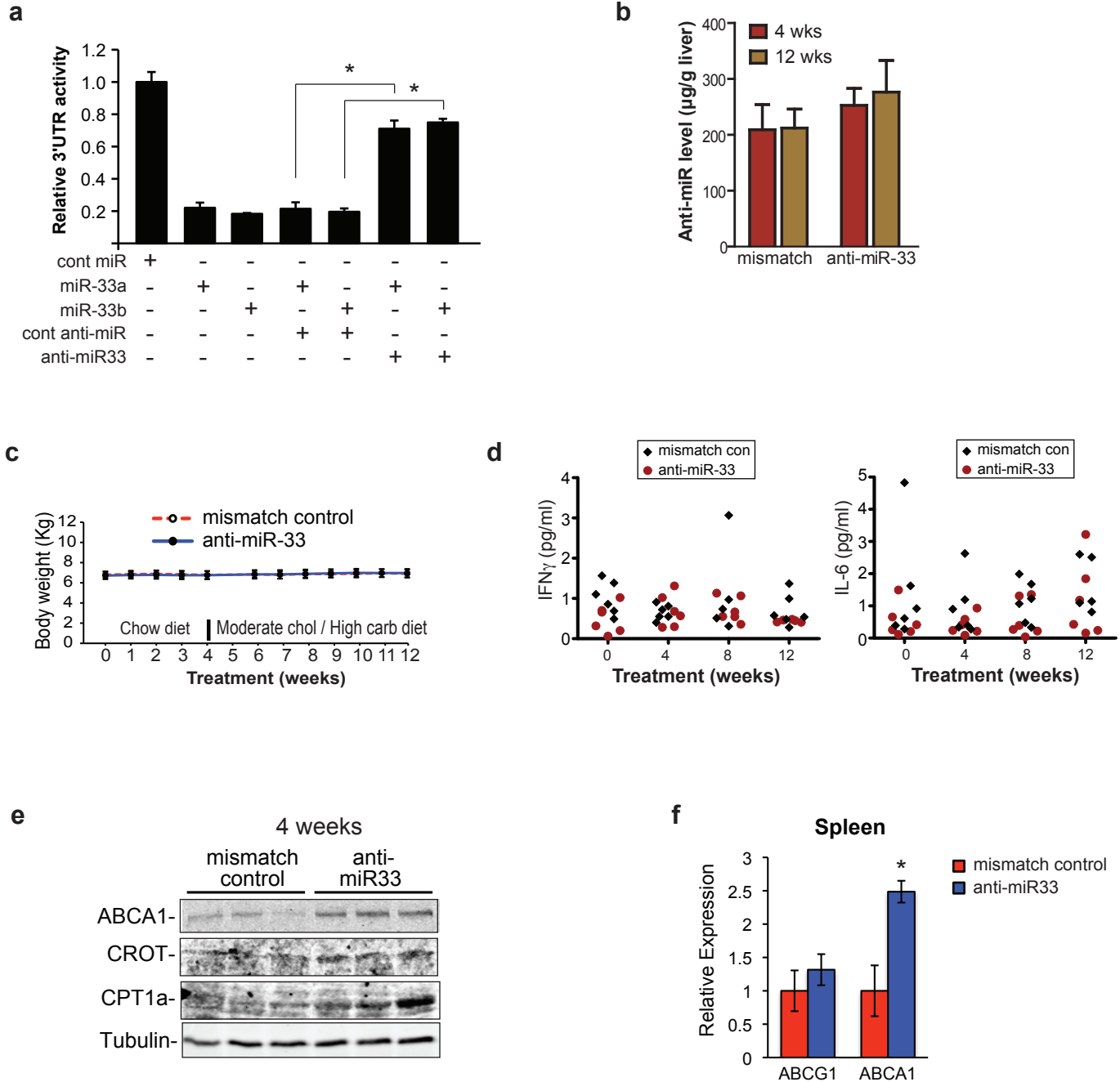
<b>Gene id</b>	<b>Gene Title</b>	<b>Fold Change</b>	<b>P-Value</b>
FETUB	fetuin B	1.57	0.0058
HADHB	hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase	1.43	0.0173
ATP2B2	ATPase, Ca <sup>++</sup> transporting, plasma membrane 2	1.37	0.0011
PIN4	protein (peptidylprolyl cis/trans isomerase) NIMA-interacting, 4 (parvulin)	1.33	0.0001
SLC35A3	solute carrier family 35 (UDP-N-acetylglucosamine (UDP-GlcNAc) transporter	1.33	0.0418
CROT	carnitine O-octanoyltransferase	1.27	0.0079
SCRN3	secernin 3	1.24	0.0448
SLC20A2	solute carrier family 20 (phosphate transporter), member 2	1.24	0.0201
LMBR1	limb region 1 homolog (mouse)	1.21	0.0296
C10orf31	chromosome 10 open reading frame 31	1.19	0.0196
BCL10	B-cell CLL/lymphoma 10	1.18	0.0349
KLHL3	kelch-like 3 (Drosophila)	1.18	0.0060
IRF6	interferon regulatory factor 6	1.18	0.0209
B3GNT7	UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 7	1.17	0.0235
PRIMA1	proline rich membrane anchor 1	1.17	0.0482
IRAK2	interleukin-1 receptor-associated kinase 2	1.17	0.0206
FGA	fibrinogen alpha chain	1.16	0.0452
BACH1	BTB and CNC homology 1, basic leucine zipper transcription factor 1	1.16	0.0075
CPD	carboxypeptidase D	1.15	0.0373
ZNF347	zinc finger protein 347	1.15	0.0475

Fold change of miR-33 heptamer matched target genes in livers of anti-miR-33 vs control anti-miR treated monkeys (n=6) with an uncorrected p value of <0.05.

**Supplemental Table 3. Composition of semisynthetic diet**

Ingredient	g/100 g dry weight
Oleic Blend	4.0000
Fish Oil	0.2000
Casein, USP	8.0000
Lactalbumin	4.0000
Fructose	20.0000
Sucrose	20.0000
Applesauce, sweetened	4.5000
Wheat Flour, self-rising	22.2050
Crystalline Cholesterol	0.0640
Sitosterol	0.0068
Alphacel	9.5000
Vitamin Mixture	2.5000
Hegsted Salt Mixture	5.0000
Tenox 20A	0.0080
MTS-50	0.0122
Vit E 5-67	0.0040
TOTAL	100.0
Macronutrient	Calories (%)
Fat	12
Carbohydrate	71
Protein	17

## Supplementary Figure 1. Rayner et al.



**SFig 1. Silencing of miR-33a/b in non-human primates.** (a) Relative activity of a luciferase reporter construct fused to the 3'UTR of human ABCA1 in HEK293 cells overexpressing miR-33a or miR-33b ( $1.7\text{-}3.5 \times 10^5$  copies/ng RNA) in the presence of anti-miR-33 or control mismatch oligonucleotide. Data are expressed as mean % 3'UTR activity of control miR  $\pm$  s.e.m and are representative of 3 experiments. (b) Hepatic levels of anti-miR-33 or mismatch control as measured by ion-pairing HPLC-ES/MS following 4 weeks and 12 weeks of treatment. (c) Body weight of anti-miR-33 or mismatch control oligonucleotide treated African green monkeys ( $n=6$  per group). (d) Plasma levels of IL-6 and IFN $\gamma$  at baseline and after 4, 8 and 12 weeks of treatment. (e) Western blot for ABCA1, Cpt1a and CROT in liver samples following 4 weeks of anti-miR treatment. (f) QRT-PCR analysis of ABCA1 and ABCG1 mRNA levels in the spleen following 12 weeks of anti-miR treatment. Data in d and f are the mean  $\pm$  SEM. \* $P \leq 0.05$ .

# Supplementary Figure 2.

## Abca1 3'-UTR

### binding site 1:134-140

3' -ACGUUACGUUGUC**GUUACGUG**-5' *hsa-miR-33b*

Hsa 5' -CUGUACUGAUACUAUU**CAAUGCA**AUGCAAUUCAAUGCAAUGA-3'

Ptr 5' -CUGUACUGAUACUAUU**CAAUGCA**AUGCAAUUCAAUGCAAUGA-3'

Mml 5' -----3'

Mmu 5' -CUGUACUGACACUAUU**CAAUGCA**AUGCACUUCAAUGCAACGA-3'

3' -ACGUUACGUUGAU**GUUACGUG**-5' *hsa-miR-33a*

Hsa 5' -CUGUACUGAUACUAUU**CAAUGCA**AUGCAAUUCAAUGCAAUGA-3'

Ptr 5' -CUGUACUGAUACUAUU**CAAUGCA**AUGCAAUUCAAUGCAAUGA-3'

Mml 5' -----3'

Mmu 5' -CUGUACUGACACUAUU**CAAUGCA**AUGCACUUCAAUGCAACGA-3'

### binding site 2:139-145

3' -ACGUUACGUUGUC**GUUACGUG**-5' *hsa-miR-33b*

Hsa 5' -CUGUACUGAUACUAUUCAAUG**CAAUGCA**AUUCAAUGCAAUGA-3'

Ptr 5' -CUGUACUGAUACUAUUCAAUG**CAAUGCA**AUUCAAUGCAAUGA-3'

Mml 5' -----3'

Mmu 5' -CUGUACUGACACUAUUCAAUG**CAAUGCA**CUUCAAUGCAACGA-3'

3' -ACGUUACGUUGAU**GUUACGUG**-5' *hsa-miR-33a*

Hsa 5' -CUGUACUGAUACUAUUCAAUG**CAAUGCA**AUUCAAUGCAAUGA-3'

Ptr 5' -CUGUACUGAUACUAUUCAAUG**CAAUGCA**AUUCAAUGCAAUGA-3'

Mml 5' -----3'

Mmu 5' -CUGUACUGACACUAUUCAAUG**CAAUGCA**CUUCAAUGCAACGA-3'

### binding site 3:149-155

3' -ACGUUACGUUGUC**GUUACGUG**-5' *hsa-miR-33b*

Hsa 5' -CUGUACUGAUACUAUUCAAUGCAAUGCAAUU**CAAUGCA**AUGA-3'

Ptr 5' -CUGUACUGAUACUAUUCAAUGCAAUGCAAUU**CAAUGCA**AUGA-3'

Mml 5' -----3'

Mmu 5' -CUGUACUGACACUAUUCAAUGCAAUGCACUU**CAAUGCA**ACGA-3'

3' -ACGUUACGUUGAU**GUUACGUG**-5' *hsa-miR-33a*

Hsa 5' -CUGUACUGAUACUAUUCAAUGCAAUGCAAUU**CAAUGCA**AUGA-3'

Ptr 5' -CUGUACUGAUACUAUUCAAUGCAAUGCAAUU**CAAUGCA**AUGA-3'

Mml 5' -----3'

Mmu 5' -CUGUACUGACACUAUUCAAUGCAAUGCACUU**CAAUGCA**ACGA-3'

## Abcg1 3'-UTR

### binding site 1:717-723

Hsa 5' -GCAGACAUU-----UUUAAAAGCUAUACAAAAAUUG-3'

Ptr 5' -GCAGACAUU-----UUUAAAAGCUAUACAAAAAUUG-3'

Mml 5' -GCAGAAUU-----UUUAAAAGCUAUACAAAACAUUG-3'

Mmu 5' -GCAGGACUAACGCAACG**CAAUGCA**ACGCAAUGCAGACAGUGC-3'

3' -ACGUUACGUUGUC**GUUACGUG**-5' *hsa-miR-33b*

Hsa 5' -GCAGACAUU-----UUUAAAAGCUAUACAAAAAUUG-3'

Ptr 5' -GCAGACAUU-----UUUAAAAGCUAUACAAAAAUUG-3'

Mml 5' -GCAGAAUU-----UUUAAAAGCUAUACAAAACAUUG-3'

Mmu 5' -GCAGGACUAACGCAACG**CAAUGCA**ACGCAAUGCAGACAGUGC-3'

3' -ACGUUACGUUGAU**GUUACGUG**-5' *hsa-miR-33a*

### binding site 2:727-733

Hsa 5' -GCAGACAUU-----UUUAAAAGCUAUACAAAAAUUG-3'

Ptr 5' -GCAGACAUU-----UUUAAAAGCUAUACAAAAAUUG-3'

Mml 5' -GCAGAAUU-----UUUAAAAGCUAUACAAAACAUUG-3'

Mmu 5' -GCAGGACUAACGCAACGCAAUGCAACG**CAAUGCA**GACAGUGC-3'

3' -ACGUUACGUUGUC**GUUACGUG**-5' *hsa-miR-33b*

Hsa 5' -GCAGACAUU-----UUUAAAAGCUAUACAAAAAUUG-3'

Ptr 5' -GCAGACAUU-----UUUAAAAGCUAUACAAAAAUUG-3'

Mml 5' -GCAGAAUU-----UUUAAAAGCUAUACAAAACAUUG-3'

Mmu 5' -GCAGGACUAACGCAACGCAAUGCAACG**CAAUGCA**GACAGUGC-3'

3' -ACGUUACGUUGAU**GUUACGUG**-5' *hsa-miR-33a*

## Crot 3'-UTR

### binding site 1: 216-222

3' -ACGUUACGUUGUC**GUUACGUG**-5' *hsa-miR-33b*

Hsa 5' -AAGC-UCCUCUGAUGCAGCAG**CAAUGCA**AAUUUUGACAU-3'

Ptr 5' -AAGC-UCCUCUGAUGCAGCAG**CAAUGCA**AAUUUUGACAU-3'

Mml 5' -AAGUCUCUGUGUUGCAACCA**CAAUGCA**AAAGUCAGAUU-3'

Mmu 5' -AAGC-UCCUCUGAUGCAGCAG**CAAUGCA**AAUUUUGACAU-3'

3' -ACGUUACGUUGAU**GUUACGUG**-5' *hsa-miR-33a*

Hsa 5' -AAGC-UCCUCUGAUGCAGCAG**CAAUGCA**AAUUUUGACAU-3'

Ptr 5' -AAGC-UCCUCUGAUGCAGCAG**CAAUGCA**AAUUUUGACAU-3'

Mml 5' -AAGUCUCUGUGUUGCAACCA**CAAUGCA**AAAGUCAGAUU-3'

Mmu 5' -AAGC-UCCUCUGAUGCAGCAG**CAAUGCA**AAUUUUGACAU-3'

### binding site 2: 292-298

3' -ACGUUACGUUGUC**GUUACGUG**-5' *hsa-miR-33b*

Hsa 5' -AAUCCAAUUCUACAACUUUAA**CAAUGCA**AGUCU-3'

Ptr 5' -AAUCCAAUUCUACAACUUUAA**CAAUGCA**AGUCU-3'

Mml 5' -AAUCCAAUUCUAAAAUUUAA**CAAUGCA**AAUCU-3'

3' -ACGUUACGUUGAU**GUUACGUG**-5' *hsa-miR-33a*

Hsa 5' -AAUCCAAUUCUACAACUUUAA**CAAUGCA**AGUCU-3'

Ptr 5' -AAUCCAAUUCUACAACUUUAA**CAAUGCA**AGUCU-3'

Mml 5' -AAUCCAAUUCUAAAAUUUAA**CAAUGCA**AAUCU-3'

## Cpt1a 3'-UTR

### binding site 1: 2499-2506

3' -ACGUUACGUUGUC**GUUACGUG**-5' *hsa-miR-33b*

Hsa 5' -AAUUGUUGCUAUCAGUGCAGUUAA**CAAUGCA**UUUUUUAU-3'

Ptr 5' -----3'

Mml 5' -----3'

Mmu 5' -AAUCACCCUCUCCUGAGCAGUU**CAAUGCA**UUUUUUAU-3'

3' -ACGUUACGUUGAU**GUUACGUG**-5' *hsa-miR-33a*

Hsa 5' -AAUUGUUGCUAUCAGUGCAGUUAA**CAAUGCA**UUUUUUAU-3'

Ptr 5' -----3'

Mml 5' -----3'

Mmu 5' -AAUCACCCUCUCCUGAGCAGUU**CAAUGCA**UUUUUUAU-3'

## Hadhb 3'-UTR

### binding site 1: 61-67

3' -ACGUUACGUUGUC**GUUACGUG**-5' *hsa-miR-33b*

Hsa 5' -CUCACACUAGGCAAUGCCAUUU**CAAUGCA**UUACUAAAUGACAUUG-3'

Ptr 5' -CUCACACUAGGCAAUGCCAUUU**CAAUGCA**UUACUAAAUGACAUUG-3'

Mml 5' -----3'

Mmu 5' -CUUGCACUGGGCAAUGCCAUUU**CAAUGCA**CUACCAAGUGAUACCUG-3'

3' -ACGUUACGUUGAU**GUUACGUG**-5' *hsa-miR-33a*

Hsa 5' -CUCACACUAGGCAAUGCCAUUU**CAAUGCA**UUACUAAAUGACAUUG-3'

Ptr 5' -CUCACACUAGGCAAUGCCAUUU**CAAUGCA**UUACUAAAUGACAUUG-3'

Mml 5' -----3'

Mmu 5' -CUUGCACUGGGCAAUGCCAUUU**CAAUGCA**CUACCAAGUGAUACCUG-3'

## Supplementary Figure 2 (cont'd).

### Prkaa1 3'-UTR

binding site 1: 115-121

```

3'-ACGUUACGUUGUCGUUACGUG-5' hsa-miR-33b
      |||
Hsa 5'-AGGGCUGGCGUUUUGGAAUGCAAUUUGCACAGG-3'
Ptr 5'-AGGGCUGGCGUUUUGGAAUGCAAUUUGCACAGG-3'
Mml 5'-AGGGCUGGCGUUUUGAAAUGCAAUUUGCACAGG-3'
Mmu 5'-AGGAUUGGCCUUUUGGAAUGCAGUUUGCACAGG-3'
  
```

```

3'-ACGUUACGUUGAUGUUACGUG-5' hsa-miR-33a
      |||
Hsa 5'-AGGGCUGGCGUUUUGGAAUGCAAUUUGCACAGG-3'
Ptr 5'-AGGGCUGGCGUUUUGGAAUGCAAUUUGCACAGG-3'
Mml 5'-AGGGCUGGCGUUUUGAAAUGCAAUUUGCACAGG-3'
Mmu 5'-AGGAUUGGCCUUUUGGAAUGCAGUUUGCACAGG-3'
  
```

binding site 2: 2532-2538

```

3'-ACGUUACGUUGUCGUUACGUG-5' hsa-miR-33b
      |||
Hsa 5'-AAGAGGUAA-GGGAGGCAAUGCAAAUGAUUUUUAA-3'
Ptr 5'-AAGAGAUAA-GGGAGGCAAUGCAAAUGAUUUUUAA-3'
Mml 5'-GGGAGGUAA-GGGAGGCAAUGCAAAUGAUUUUUAA-3'
Mmu 5'-AAAAGUAAAAGGGAGUCAAUGCAAAUGAUUUUUAA-3'
  
```

```

3'-ACGUUACGUUGAUGUUACGUG-5' hsa-miR-33a
      |||
Hsa 5'-AAGAGGUAA-GGGAGGCAAUGCAAAUGAUUUUUAA-3'
Ptr 5'-AAGAGAUAA-GGGAGGCAAUGCAAAUGAUUUUUAA-3'
Mml 5'-GGGAGGUAA-GGGAGGCAAUGCAAAUGAUUUUUAA-3'
Mmu 5'-AAAAGUAAAAGGGAGUCAAUGCAAAUGAUUUUUAA-3'
  
```

### Sirt6 3'-UTR

binding site 1: 478-484

```

3'-ACGUUACGUUGUCGUUACGUG-5' hsa-miR-33b
      |||
Hsa 5'-AGGCUUCUGGAAAAGUCCUCAAUGCAAAUAAAAACAAUUU-3'
Ptr 5'-AGGCUUCUGGAAAAGUCCUCAAUGCAAAUAAAAACAAUUU-3'
Mml 5'-AGGCUUCUGGAAAAGUCCUCAAUGCAAAUAAAA--AUUU-3'
Mmu 5'------3'
  
```

```

3'-ACGUUACGUUGAUGUUACGUG-5' hsa-miR-33a
      |||
Hsa 5'-AGGCUUCUGGAAAAGUCCUCAAUGCAAAUAAAAACAAUUU-3'
Ptr 5'-AGGCUUCUGGAAAAGUCCUCAAUGCAAAUAAAAACAAUUU-3'
Mml 5'-AGGCUUCUGGAAAAGUCCUCAAUGCAAAUAAAA--AUUU-3'
Mmu 5'------3'
  
```

### Irs2 3'-UTR

binding site 1: 1577-1583

```

3'-ACGUUACGUUGUCGUUACGUG-5' hsa-miR-33b
      |||
Hsa 5'-UAUAUUUAAUUGGCAAUGCAAAAGUCUUCUGCUUCCGU-3'
Ptr 5'-UAUAUUUAAUUGGCAAUGCAAAAGUCUUCUGCUUCCGU-3'
Mml 5'-UAUAUUUAAUUGGCAAUGCAAAAGUCUUCUGCUUCCGU-3'
Mmu 5'-UAUAUUUAAUUGGCAAUGCAAGCAGUCUUCUGCUUCCGU-3'
  
```

```

3'-ACGUUACGUUGAUGUUACGUG-5' hsa-miR-33a
      |||
Hsa 5'-UAUAUUUAAUUGGCAAUGCAAAAGUCUUCUGCUUCCGU-3'
Ptr 5'-UAUAUUUAAUUGGCAAUGCAAAAGUCUUCUGCUUCCGU-3'
Mml 5'-UAUAUUUAAUUGGCAAUGCAAAAGUCUUCUGCUUCCGU-3'
Mmu 5'-UAUAUUUAAUUGGCAAUGCAAGCAGUCUUCUGCUUCCGU-3'
  
```

### Sirt1 3'-UTR

binding site 1: 1518-1524

```

3'-ACGUUACGUUGUCGUUACGUG-5' hsa-miR-33b
      |||
Hsa 5'-AUUUGGCUACACUAAAGAAUGCAAGUAUUUUAGUUUCC-3'
Ptr 5'-AUUUGGCUACACUAAAGAAUGCAAGUAUUUUAGUUUCC-3'
Mml 5'-AUUUGGCUACACUAAAGAAUGCAAGUAUUUUAGUUUCC-3'
Mmu 5'-AUUUGGCUACACUAAAGAAUGCAAGUAUUUUAGUUUCC-3'
  
```

```

3'-ACGUUACGUUGAUGUUACGUG-5' hsa-miR-33a
      |||
Hsa 5'-AUUUGGCUACACUAAAGAAUGCAAGUAUUUUAGUUUCC-3'
Ptr 5'-AUUUGGCUACACUAAAGAAUGCAAGUAUUUUAGUUUCC-3'
Mml 5'-AUUUGGCUACACUAAAGAAUGCAAGUAUUUUAGUUUCC-3'
Mmu 5'-AUUUGGCUACACUAAAGAAUGCAAGUAUUUUAGUUUCC-3'
  
```

### NPC1 3'-UTR

binding site 1: 443-449

```

3'-ACGUUACGUUGUCGUUACGUG-5' hsa-miR-33b
      |||
Hsa 5'-UAAAGAGCUUUUUAAUGCAAAUAAUUAAACUUUGUACAC-3'
Ptr 5'-UAAAGAGCUUUUUAAUGCAAAUAAUUAAACUUUGUACAC-3'
Mml 5'-UAAAGAGCUUUUUAAUGCAAAUAAUUAAACUUUGUACAC-3'
Mmu 5'-UAAAGAGCUUUUUAAUGCAAAUAAUUAAACUUUGUACA--3'
  
```

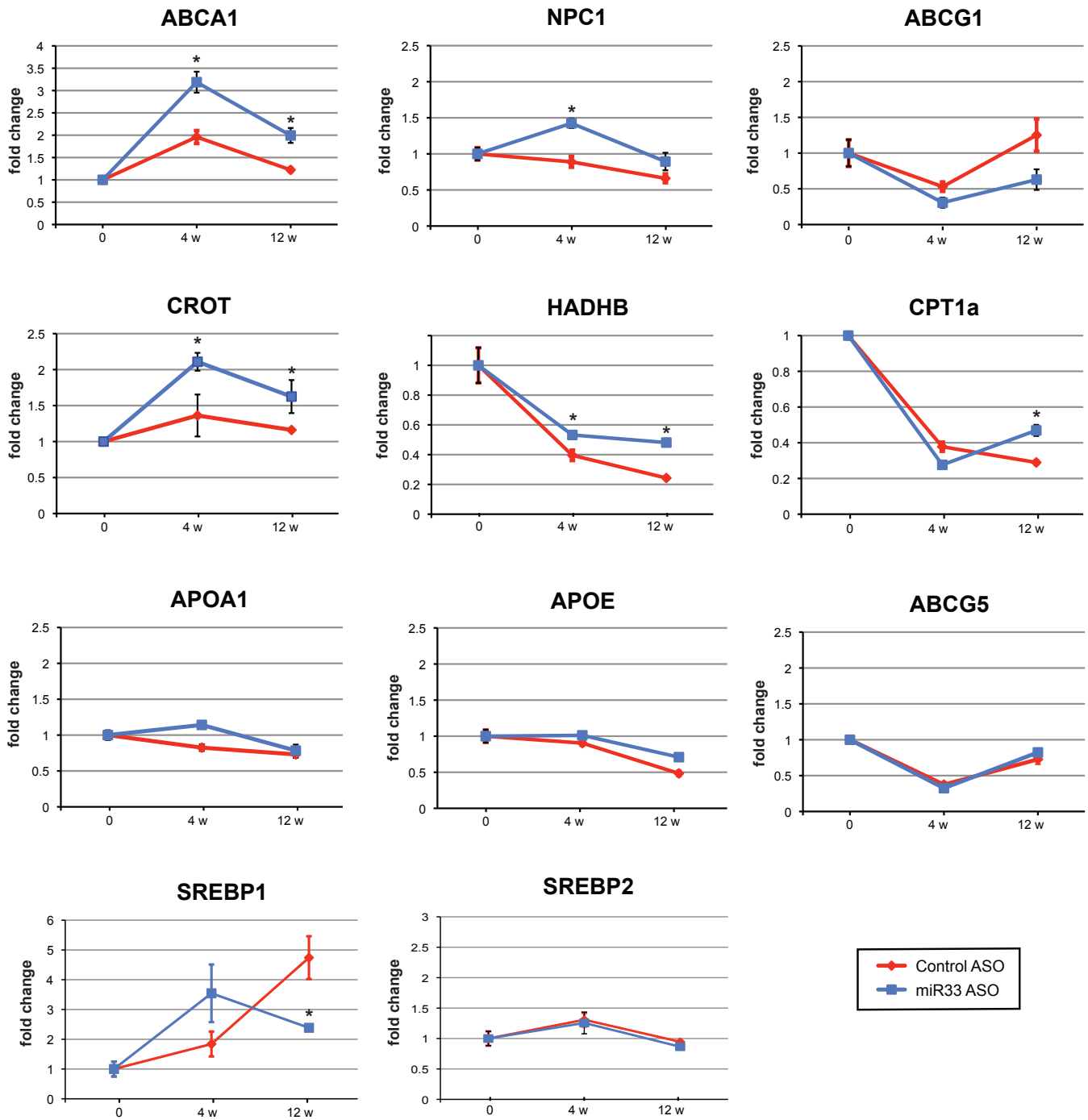
```

3'-ACGUUACGUUGAUGUUACGUG-5' hsa-miR-33b
      |||
Hsa 5'-UAAAGAGCUUUUUAAUGCAAAUAAUUAAACUUUGUACAC-3'
Ptr 5'-UAAAGAGCUUUUUAAUGCAAAUAAUUAAACUUUGUACAC-3'
Mml 5'-UAAAGAGCUUUUUAAUGCAAAUAAUUAAACUUUGUACAC-3'
Mmu 5'-UAAAGAGCUUUUUAAUGCAAAUAAUUAAACUUUGUACA--3'
  
```

## SFig 2. Predicted target sites of miR-33 in the 3'UTR of indicated genes.

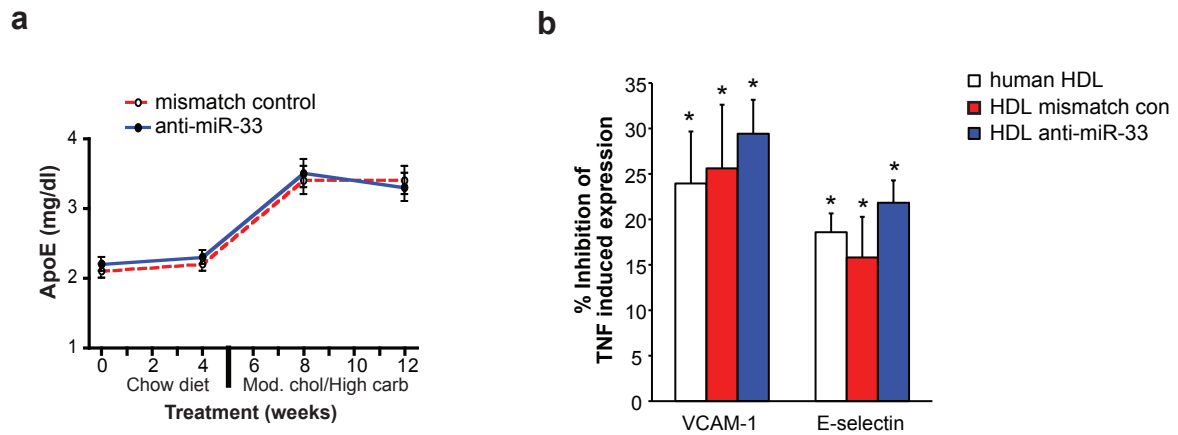
Predicted miR-33a/b binding sites in the indicated genes are shown by bolded sequence in the following species: Hsa=human; Ptr=chimpanzee; Mml=rhesus; Mmu=mouse.

Supplementary Fig 3. Rayner et al.



**SFig 3.** QRT-PCR analysis of hepatic mRNA expression at baseline (time 0), 4 or 12 weeks of anti-miR treatment. Data are the mean  $\pm$  SEM. \*P  $\leq$  0.05.

## Supplementary Figure 4.



**SFig 4. Characterization of plasma HDL.** (a) Plasma apoE in anti-miR treated monkeys. \* $P \leq 0.05$ . (b) Inhibition of TNF $\alpha$ -induced VCAM-1 and E-selectin on endothelial cells treated with human HDL (500  $\mu\text{g}$  protein/ml), or equal volumes of PEG-isolated HDL from anti-miR treated monkeys. Data are the mean  $\pm$  SD and are representative of 3 experiments. \* $P \leq 0.05$ .