SUPPLEMETARY MATERIAL

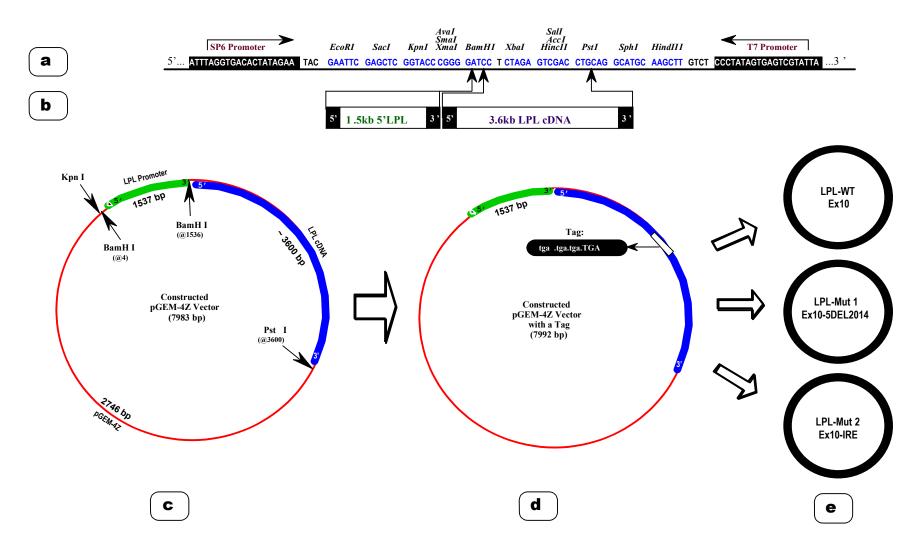
Identification and characterization of a novel 5 bp deletion in a putative insulin response element in the lipoprotein lipase gene, *by* L-X Yang, H. Razzaghi, J.E. Hokanson, M.I. Kamboh.

Supplementary Fig. 1. pGEM-4Z Vector Cloning Strategy. **a**): Cloning sites in the pGEM-4Z vector. **b**): Fragments of the LPL promoter (1537 bp) and LPL cDNA (3.6 kb). **c**): Cloning of LPL promoter and LPL cDNA in the pGEM-4Z vector. **d**): The pGEM-4Z vector containing the Tag (tgatgatga) sequence before the stop codon (TGA). **e**): pGEM-4Z vectors containing LPL exon 10 wild type (WT), 5 bp deletion (Mut1) and deleted 19 bp IRE sequence (Mut2).

Supplementary Fig. 2. The sequence of the insulin response element (IRE) in the APOC3 gene (top) was used to find IRE in ten species. Three core consensus sequences labeled I, II, III, within a 19 bp stretch (positions 9-27 in the APOC3 gene). Following are the computed *P*-values for the probability of a nucleotide match at a specific position on the table, given N = 10 (the number of species) and P = 0.25 (chance of match for A, C, G, or T). *P*-value of greater than 0.01 was set as a minimum for scoring. Therefore, the number of matches must be greater than 5 in order to be counted in the consensus sequence.

Number of Matches	Probability	P-value
0	0.0563	0.9347
1	0.2440	0.7560
2	0.5256	0.4744
3	0.7759	0.2241
4	0.9219	0.0781
5	0.9803	0.0197
6	0.9965	0.0035
7	0.9996	0.0004
8	0.9999	2.96 × 10⁻⁵
9	0.9999	9.54 × 10 ⁻⁷
10	1	<0.0001

pGEM-4Z Vector Cloning Strategy



Supplementary Figure 1

		1	_2_	_3_	_ 4 _	_5_	_6_	_7_	_8_	9_	_10_	_11_	_12_	_13_	_14_	_15_	_16_	_17_	_18_	_19_	_20_	_21_	_22_	_23_	_24_	_25_	_26_	_27	_28_	_29_	_30_	_31_				35_
	IRE in Human APOC3 Gene	G	C	Ċ	Ċ	G	G	T	C	Ť	T	Ċ	Ť	G	Ť	G	C	C	T	T	Ť	Ā	C	Ť	C	C	A	A	A	C	A	Ť	Ċ	C	Ċ	č
	Human					G	G		С	Т	Τ	С	Т					С	Τ	Т	Τ	Α	С	Τ	С		Α	Α				Т		С		
	Mouse					G			С	Т	Т		Т						Т	Т	Т		С	Т	С		Α	Α								
Putativ gene of	Cow								С	Т	Т	С	Т			G			Т	Т	Т		С	Т	С	С		Α								
	Pig								С	Т	Т	С	Т						Т	Т			С	Т		С	Α	Α								
Putative IRE in gene of various	Sheep	G		С			G			Т	Τ		Τ	G	Τ				Τ		Τ			Τ		С	Α		Α	С		Τ		С		С
j Š Š	Cat	G								Τ	Τ		Τ	G	Τ				Τ		Τ			Τ		С	Α		Α	С	Α	Τ		С		С
the LPL species	Guinea Pig	G						Τ		Τ		С	Τ	G		G			Τ	Τ		Α			С	С	Α				Α	Τ	С		С	С
l icie	Rat			С			G			Т	Τ	С					С	С		Τ	Т	Α		Τ	С	С		Α		С	Α				С	
°' '	Baboon	G	С	С		G		Τ	С		Τ	С		G	Т		С		Τ				С		С	С				С	Α		С		С	С
	Chicken						G	Τ		Т	T		Т		Τ	G	С		T	Τ	Т	Α			С			Α	Α	С				С	С	С
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	Consensus	4	1	3	0	3	4	3	5	9	9	6	8	4	4	3	3	2	9	7	7	4	5	7	7	7	6	6	3	5	4	4	3	4	4	5
	Consensus Sequence									Т	Т	С	Т						Т	Т	Т			Т	С	С	Α	Α								
Core Consensus Sequence Clusters																																				
	ve 19 bp IRE nan LPL Gene									т	Т	С	т	С	Α	Α	A	С	т	Т	т	A	С	Т	С	Т	Α	Α								
		<u> </u>	<u> </u>	<u> </u>												<u> </u>	<u> </u>	<u> </u>			ť	5 bp	Del	etio	n											

Supplementary Figure 2