Supplement Table S1

Table S1 Comparison of kidney function in 14% and 8% LPD diet

	normal diet (n=12)	14% LPD (n=6)	8% LPD (n=6)
Urine osmolality (mOsm/kg H_2O)	1977 ± 293	1516 ± 379	1237 ± 328
Osmolar clearance (ml/day)	31 ± 5	14 ± 2	16 ± 2
Urea clearance (μl/min)	453 ± 108	306 ± 42	331 ± 42

Supplement Figure S1

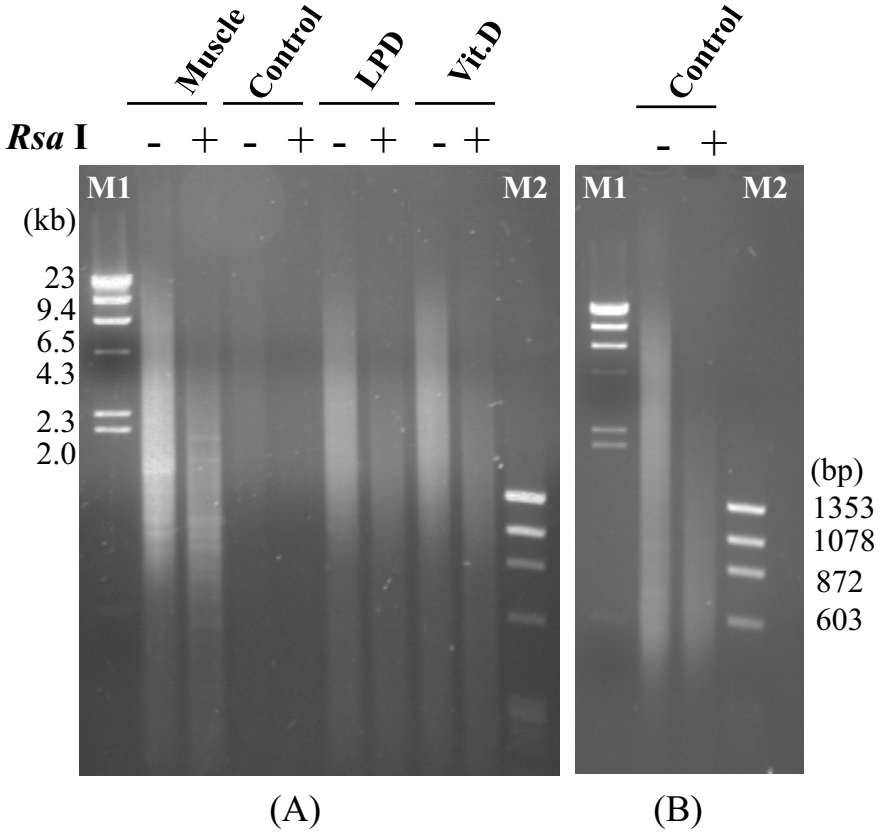

Figure S1. Analysis of cDNA synthesis and Rsa I digestion. The tester (LPD and Vit.D), driver (control), and the human skeletal muscle ds cDNA are synthesized from the poly A+ RNA as described in the Methods. The cDNA are subjected to Rsa I digestion to obtain shorter, blunt-ended molecules. The products are analyzed by agarose/EtBr gel electrophoresis. After RsaI digestion, the average cDNA size is reduced . Since the yield of control ds cDNA is low (A). We repeated the ds cDNA synthesis and RsaI digestion for control (B). M1: λ/HindIII DNA marker. M2: ΦX174/Hae III DNA marker.

Supplement Figure S2

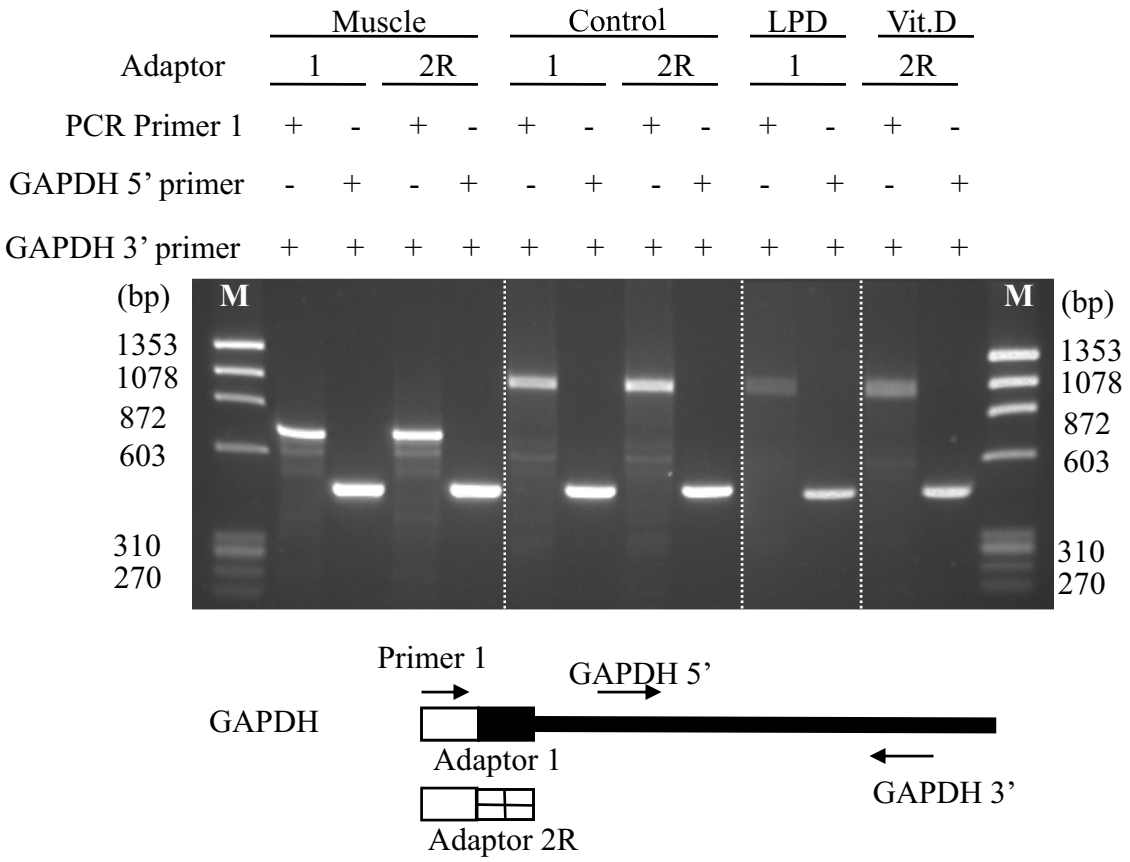

Figure S2: Adaptor ligation efficiency analysis: The RsaI digested cDNAs are ligated with adaptor 1 or adaptor 2R. PCR Primer 1 corresponds to 5' partial sequence of Adaptor 1 and 2R . Adapter ligated GAPDH cDNA was amplified by PCR Primer 1 and GAPDH 3' primer. GAPDH 5' and 3' primers were used as control . The PCR product amplified using PCR primer 1 and GAPDH 3' primer is 0.75 kb in the human sample and 1.2 kb in the mouse sample. M: ΦX174/Hae III DNA marker.

Supplement Figure S3

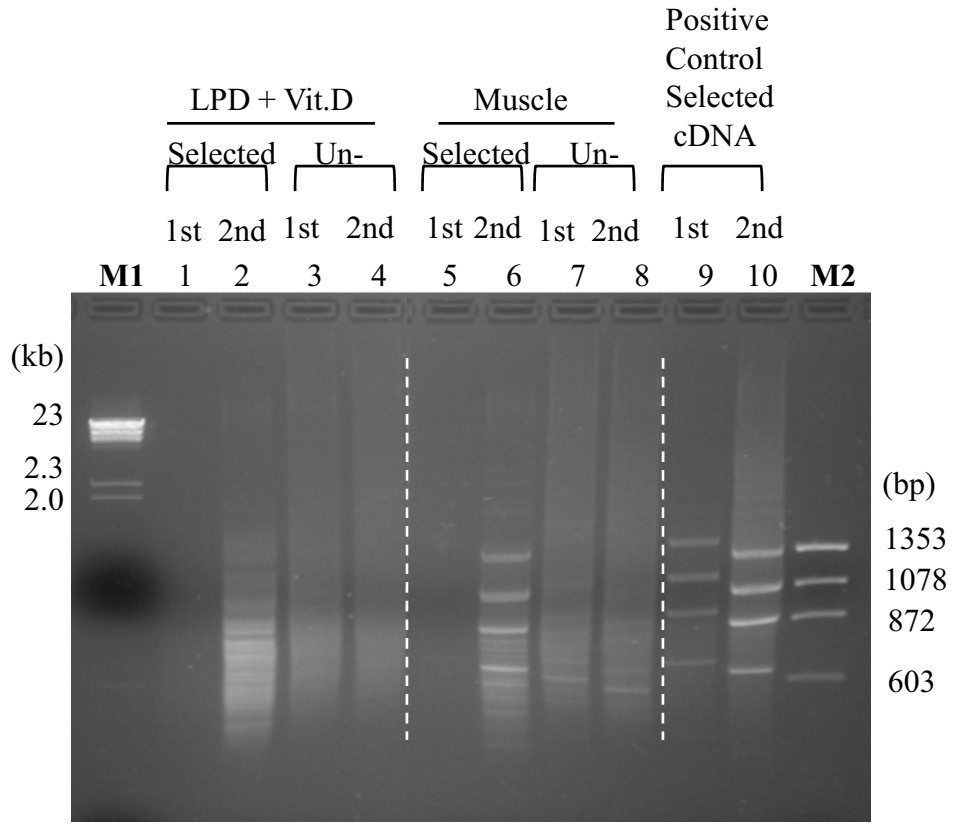

Figure S3. Analysis of subtraction efficiency. Human skeletal muscle mRNA sample was used as overall control for the subtraction experiment. To make mock tester cDNA, a small amount of Hae III-digested ΦX174 DNA was added to the RsaI digested muscle cDNA. After second supression amplification, the ΦX174/Hae III bands were selected from the subtracted skeletal muscle control cDNA. In the unselected subtraction, the tester cDNA was ligated with both adaptor 1 and adaptor 2R. Lane 2 is the selected subtracted genes from LPD and Vit.D against control and used for generating library in TA vector . Lane 9 and Lane 10 are the positive control selected cDNA provided by Colontech. M1: λ/HindIII DNA marker. M2: ΦX174/Hae III DNA marker.

Supplement Figure S4

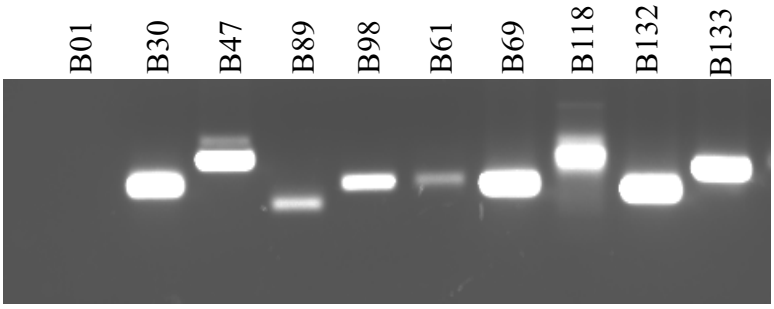

Figure S4. RT-PCR analysis of 10 ttSSH selected transporter/channel genes. Total RNA was extracted from rat kidney IM and reversed transcribed into cDNA . Specific primers for the 10 selected genes were designed with the Invitrogen Primer program and listed in Table S2. PCR was performed using Advantage 2 PCR kit . Amplified products were analyzed by 1.2% agarose/EtBr gel electrophoresis.

Table S2. Primers used in real-time RT-PCR

Clone	Accession	Gene	Primer sequence	Product (bp)
B01	XM_223625	ABC transporter A13	5'- cagtggggtctggtcgtag-3' 5'- acagctgccaggagagacat-3'	222
B30	AB040056	Organic cation transporter	5'- ctccttgcatcctcttcctg -3' 5'- aggaaaaggtggacgttgtg -3'	219
B47	D13906	Water channel AQP2	5'- ggttcccagtgcagagtagc -3' 5'- gcggagacgagcacttttac -3'	288
B89	XM_219555	Two-pore channel 2	5'- tgctgctgactatccacctg -3' 5'- tcacatcagggttgttggaa -3'	171
B98	NM_021688	Potassium channel TWIK	5'- gggatcacgtgttacctgct -3' 5'- caaaaggctcgttttgcttc -3'	223
B61	XM_213980	ATPase, H^+ transporting, V1	5'- aagctggatgaggcaaagaa-3' 5'- ctgcttaatcacgctgtcca -3'	234
B69	BC060533	Solute carrier family 25	5'- aaggagcagggctttctctc -3' 5'- gtgggtagacgaagcagagg -3'	214
B118	NM_057139	Na^+ H^+ glutamine transporter	5'- agaaggaggaagcccagaag -3' 5'- tagccaattccaccacttcc -3'	277
B132	D12770	Adenine translocator	5'- tccttctggaggggtaacct -3' 5'- gtgggtagacgaagcagagg -3'	196
B133	XM_216510	Vacuolar proton pump	5'- tgtccaacctgttctgtgga -3' 5'- gctaagggacacagctccag -3'	262