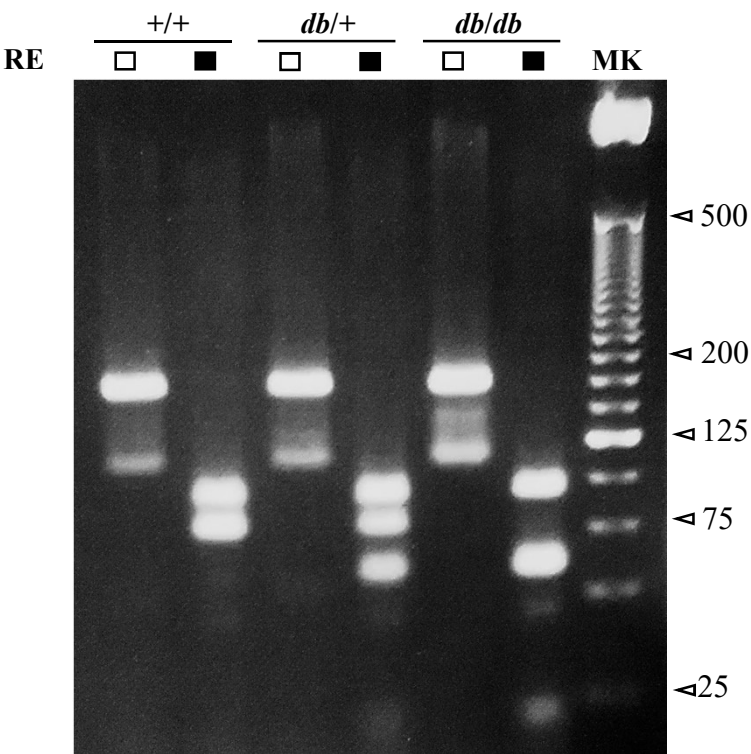
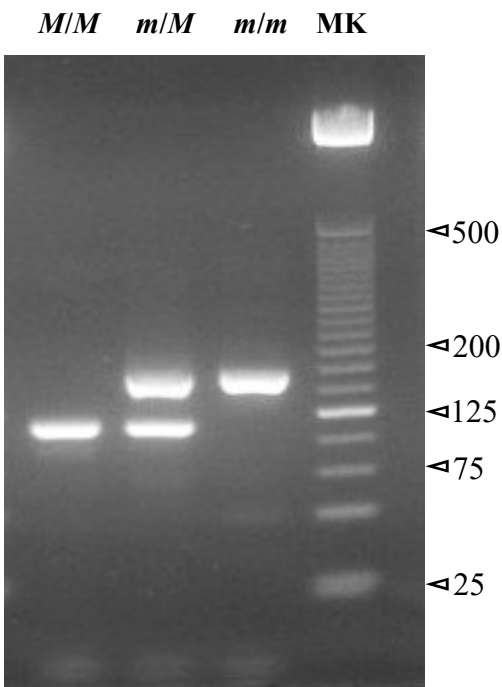


Supplementary **FIGURE 1:**



(a)



(b)

**Supplementary TABLE 1: Primer sequences for genetic diagnosis and real-time PCR.**

Gene	Accession number	Sequence
Genes targeted for genetic diagnosis		
<i>Lepr</i>	NC_000070	F: 5'-AGAACGGACACTCTTTGAAG-3' R: 5'-TCTAATAAGCTCATCAAATGTTA-3'
<i>Dock7</i>	NC_000070	F: 5'-CTGTCCACATAATGATTTCAATA-3' R1: 5'-CTGGCAGGCAGAACTGCC-3' R2: 5'-CAATCGCAAACGCATTAGTAAA-3'
Genes targeted for real-time PCR		
<i>Gapdh</i>	NM_008084	F: 5'-CCGCATCTTCTTGTGCAGTGCC-3' R: 5'-GGGGTCGTTGATGGCAACAATCTC-3'
<i>Agrp</i>	NM_007427	F: 5'-GAGTTCCCAGGTCTAAGTCTGAATG-3' R: 5'-ATCTAGCACCTCCGCCAAAG-3'
<i>Cart</i>	NM_013732	F: 5'-ACGAGAAGAAGTACGGCCAA-3' R: 5'-CCCGATCCTGGCCCCCTTT-3'
<i>Npy</i>	NM_023456	F: 5'-TCATCACCAGACAGAGATATG-3' R: 5'-GTGCTTTCCTTCATTAAGAGG-3'
<i>Pomc</i>	NM_008895	F: 5'-CTGCTTCAGACCTCCATAGA-3' R: 5'-GGATGCAAGCCAGCAGGTT-3'
<i>Ucp1</i>	NM_009463	F: 5'-TACCAAGCTGTGCGATGTCCA-3' R: 5'-GCACACAAACATGATGACGTTCC-3'
<i>Pparγ</i>	NM_011146	F: 5'-TGTGGGGATAAAGCATCAGG-3' R: 5'-GGCAGTTAAGATCACACCTAT-3'

*Lepr*: leptin receptor; *Dock7*: dedicator of cytokinesis 7;

*Gapdh*: glyceraldehyde-3-phosphate dehydrogenase; *Agrp*: agouti related neuropeptide;

*Cart*: cocaine- and amphetamine- regulated transcript; *Npy*: neuropeptide Y;

*Pomc*: pro-opiomelanocortin; *Ucp*: uncoupling protein;

*Ppar*: peroxisome proliferator activated receptor.

F: forward primer; R: reverse primer.

*Dock7*: wild type is amplified by R1; a mutant gene (*misty*) is amplified by R2.

The two genes are amplified by the same forward primer.