**Supplementary Data**

**Table S1.** *Vdr* genotyping PCR conditions. Panda et al. 2004 (29)

|  |  |
| --- | --- |
| **Wild Type *Vdr* Primers** | **Amplicon length**  |
| Forward | 5’-CTCCATCCCCATGTGTCTTT-3’ | 750 bp |
| Reverse | 5’-TTCTTCAGTGGCCAGCTCTT-3’ |
| **Mutant *Vdr* Primers** | **Amplicon length**  |
| Forward | 5’-GCTGCTCTGATGCCGCCGTGTTC-3’ | 294 bp |
| Reverse | 5’-GCACTTCGCCCAATAGCAGCCAG-3’ |
| **Cycling Conditions** |  |
| Denature | 94°C | 60 sec | 35 cycles |
| Anneal | 65°C | 60 sec |
| Extend | 72°C | 60 sec |

|  |  |
| --- | --- |
| **A** | **B** |
| Macintosh HD:Users:sambuckberry:Library:Containers:com.apple.mail:Data:Library:Mail Downloads:39A5381E-53C9-4BD8-9372-64270BD4326F:VDR_Gel_Run_2014-02-20_Crop_annotation_publication.jpg |

**Figure S1.** Genotyping of *Vdr* alleles by PCR and Gel electrophoresis.

**A** Primers for wild-type allele. **B** Primers for knockout allele.

**Table S2.** Primers and PCR conditions for sex typing of mice. Albay et al., 2009 (30)

|  |  |
| --- | --- |
| ***Sry* Primers** | **Amplicon length** |
| Forward | 5’-AACAACTGGGCTTTGCACATTG-3’ | 7166, 146 bp (doublet) |
| Reverse | 5’-GTTTATCAGGGTTTCTCTCTAGC-3’ |  |
| ***Nfiα* Primers** | **Amplicon length** |
| Forward | 5’-TGCTGTGTTCTGGTCAGTCAAG-3’ | 405 bp |
| Reverse | 5’-CAAAGCAAATCTCCATGCTCGG-3’ |  |
| **Cycling Conditions** |  |
| Denature | 94°C | 60 sec | 33 cycles |
| Anneal | 60°C | 60 sec |
| Extend | 72°C | 72 sec |
|  | 72°C | 9 min | 1 cycle |

**Table S3.** PCR primers and cycling conditions to validate DNAse treatment of placental RNA extracts

|  |  |
| --- | --- |
| **Primers** | **Amplicon length** |
| Forward | 3’-GGCACTGACTGAGGTCAAAC-5’ | 120 bp |
| Reverse | 3’-GTCACAATCACAGAGACTTTGA-5’ |  |
| **Cycling Conditions** |  |
| Denature | 94°C | 10 sec | 40 cycles |
| Anneal | 60°C | 15 sec |
| Extend | 72°C | 60 sec |

**Table S3.** Quantitative PCR assay and cycling conditions

|  |  |  |
| --- | --- | --- |
| **Gene** | **Taqman Assay ID** | **Amplicon size** |
| *Vdr* | Mm00437297\_m1 | 95 bp |
| *Cyp24a1* | Mm00487244\_m1 | 99 bp |
| *Deptor* | Mm01195336\_m1 | 82 bp |
| *Hbms* | Mm01143545\_m1 | 81 bp |
| *Plscr1* | Mm01228223\_g1 | 79 bp |
| **Cycling Conditions** |
| **Activation** | 95°C | 10 min |  |
| **Denature** | 95°C | 15 sec | 40 cycles |
| **Anneal/extend** | 60°C | 60 sec |