Dll-1 PCR Protocol: Screening for targeted (*tm*) *vs.* wild-type (*w*) allele
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PCR reagents:

1. oligo primers at 20 uM
   Dll1 + Dll2: 567 bp targeted (tg) and/or a ~464 bp "wt" alleles
   Dll1 5'-CTA GCT CTT AGG CCT TGG TTG-3' (top)
   Dll2 5'-TTC AAT GAT CAG AGA GAA GGT-3' (bottom)
2. Perkin Elmer PCR buffer with $MgCl_2$
3. dNTP premix (I make my own dNTP premix using 100 mM NEB dNTP's. The premix contains 250 ul of each dNTP - A, C, G, &T - and 19 ml sterile water and is stable at -20°C. I freeze this in 1 ml aliquots and thaw and refreeze as needed.)
4. Perkin Elmer Amplitaq Gold
5. genomic DNA samples diluted to 50 ng/ul with sterile water

PCR reaction mixture:

15.8 ul sterile water
2.5 ul 10X PCR buffer
4 ul dNTP premix
0.75 ul primer Dll1
0.75 ul primer Dll2
1 ul dil. DNA template
0.2 ul Amplitaq Gold
25 ul total volume

Cycling conditions:

1 cycle - 94° x 6 min.
40 cycles - 94° x 1 min., 60° x 30 sec., 72° x 30 sec.
1 cycle - 72° x 7 min.
hold at 4°C.

Analysis of PCR products:
Load 10 ul aliquots of reactions + 2 ul gel loading buffer in a 1% mini-agarose gel (using a 15-well comb). Run gel approximately half-way down.

Sample gel:
Standards = Hind III digested λDNA + Hae III digested PhiX 174 DNA
PCR using primers Dll-1 + Dll-2 showing targeted (*Tg*) & wild-type (*wt*) alleles.

Dll1 + Dll2

567 bp *Tg* band
464 bp *wt* band

Results:

Gel #1: samples 34-36 are *wt* animals (w/w)
37-41 are heterozygous for the Dll-1 allele (Dll-1/w)