# GENOTYPING BY PCR PROTOCOL MUTANT MOUSE REGIONAL RESOURCE CENTER: UC DAVIS 

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NAME OF PCR: STOCK Tg(Ckm-GCGR)1Qwg/Mmucd MMRRC: 036506-UCD
Protocol: (PCR protocol provided by Donating Investigator)

| Reagent/Constituent | Volume ( $\mu \mathrm{L}$ ) |
| :--- | :---: |
| Water |  |
| $10 \times$ Buffer (contains / without $15 \mathrm{mM} \mathrm{MgCl}_{2}$ ) |  |
| dNTPs (stock concentration is mM ) |  |
| Primer 1 (stock concentration is $100 \mu \mathrm{M}$ ) |  |
| Primer 2 (stock concentration is $100 \mu \mathrm{M}$ ) |  |
| Taq Polymerase |  |
| Additives / Other (if applicable): |  |
| DNA sample extracted $\square \mathrm{NaOH} \quad \square$ Proteinase K $\square$ Other: |  |
| TOTAL VOLUME OF REACTION: |  |

## Comments on protocol:

We use SIGMA REDExtract-N-Amp ${ }^{\text {TM }}$ Tissue PCR Kit XNAT which includes Extraction solution (24ml), Tissue Preparation solution (3ml), Neutralization solution B (24ml), and REDExtract-N-Amp PCR Reaction Mix ( 1.2 ml , including buffer, salts, dNTPs, Tag polymerase, REDTaq dye, and JumpStart Taq antibody).
Strategy:

| Steps | Temp ( ${ }^{\circ} \mathrm{C}$ ) | Time (m:ss) | \# of Cycles |
| :---: | :---: | :---: | :---: |
| 1. Initiation/Melting HOT START? $\square$ | 94 | 3:00 | 1 |
| 2. Denaturation | 94 | 1:00 |  |
| 3. Annealing $\}$ steps 2-3-4 will cycle in sequence | 55 | 1:00 | 35 |
| 4. Elongation | 72 | 2:00 |  |
| 5. Amplification | 72 | 10:00 | 1 |
| 6. Finish | 4 | n/a | n/a |

## Primers:

| Name | Nucleotide Sequence (5' $\mathbf{3}$ ') |
| :--- | :--- |
| 1: Forward | 5'-GCAAAGTGCTATGGGAGGAG |
| 2: Reverse | 5'-TCAATGGTGATGGTGATGATG |

Electrophoresis Protocol:
Agarose: 1\% V: 50 Estimated Running Time: 45 min

| Primer Combination | Band | Genotype |
| :---: | :---: | :---: |
| Pimer1 +2 | 369 bp | $\mathrm{MCK}^{\text {Gcgr }}$ |



