STOCK Ptpn11^{tm1.1Wbm}/J

Stock No: 025758

Protocol 28848: Standard PCR Assay - Ptpn11<tm1.1Wbm>

Version 2.2

Notes

The genotyping protocol(s) presented here have been optimized for reagents and conditions used by The Jackson Laboratory (JAX). To genotype animals, JAX recommends researchers validate the assay independently upon receipt of animals into their facility. Reaction cycling temperature and times may require additional optimization based on the specific genotyping reagents used.

Expected Results

Mutant = ~320 bp Heterozygote = 221 bp and ~320 bp Wild type = 221 bp

JAX Protocol

Protocol Primers

| PRIMER | 5' LABEL | SEQUENCE $5' \rightarrow 3'$ | 3' LABEL | PRIMER TYPE | REACTION | NOTE |
|--------|----------|------------------------------|----------|-------------|----------|------|
| 22452 | | ATG ACT CCT GAA GCC CAT TG | | Forward | Α | |
| 22453 | | CTT CCC ATC ACC TCA GAC TCC | | Reverse | Α | |

| Reaction A | Cycling | | | | | |
|----------------------|---------------------|------|------------|-----|--|--|
| COMPONENT | FINAL CONCENTRATION | STEP | TEMP °C | ПМЕ | NOTE | |
| ddH2O | | | | | | |
| Kapa 2G HS buffer | 1.30 X | 1 | 94.0 | | | |
| | | 2 | 94.0 | | | |
| MgCl2 | 2.60 mM | 3 | 65.0 | | -0.5 C per cycle decrease | |
| dNTPS-kapa | 0.26 mM | 4 | 68.0 | | | |
| 22452 | 0.50 uM | 5 | | | repeat steps 2-4 for 10 cycles (Touchdown) | |
| 22453 | 22453 0.50 uM | | | | (Touchdown) | |
| | | 6 | 94.0 | | | |
| Glycerol | 6.50 % | 7 | 60.0 | | | |
| Dye | 1.00 X | 8 | 72.0 | | | |
| Kapa 2G HS taq polym | 0.03 U/ul | 9 | | | repeat steps 6-8 for 28 cycles | |
| DNA | | 10 | 72.0 | | | |
| | | 11 | 10.0 | | hold | |

JAX uses a very high speed Taq (\sim 1000 bp/sec), use cycling times recommended for your reagents.

JAX uses a 'touchdown' cycling protocol and therefore has not calculated the optimal annealing temperature for each set of primers.





