

T0507, Chromosome VI, 25 cM

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Primers:

Table 1: PCR Primers on Chr 6

| Primer name | Sequence (5' to 3') |
|-------------|--------------------------|
| T0507F2 | GAGTCGAGTTATCCCGGTTTCG |
| T0507R1 | GATGGTGGAGGTAGTTTCATAGCC |

PCR at 53 C, (TGEN53), 1,000-bp fragment.

SEQ Gc171, 769 bp, partial sequence

ORIGIN

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1      TGAGAGGAAG TCTACACAAA AGAATGCATT CATTAACTAT GAGTTTTGCT AATTCTTCCA
61     TTCTTAAAGA TCATCTGTTG GCGGATATAG ATCGATTGGT TAGGCTTAAT TTGGATTCGT
121    GGAGCGGCAG GGTTCCTCCTC ATGGACGAGG CTAAGAAGGT AATCATTTTA TTTAATTATT
181    TTTCAATTCG GATTGTTGAG TTTTGATGGA TTAGAGAATA ACAACTTTAG TGTATTTGTA
241    GTGGGGGTAT GATTACTTTT CCAAATTAAT TAATTAATGG AGACATACTA TTATTATTAT
301    TATGTACAAG TAATTATTAT GATGATAACA CATGTGAATG TGGTGTATC  ATGACTTTTT
361    TTTTCTTTTT TTTTTTGGT TGTGGAAAAT GTGATTCAGT TGATGTATGG ATGTATGTGC
421    AGATAACGTT TAATCTAACA GTGAAGCAGT TGATGAGTTT TGATCCATGT GAGTGGACAG
481    AGAATCTGAT GAAAGAGTAT ATGCTTGTTA TTGAAGGTTT CTTCTGCATT CCTTTGCCTA
541    TTTTCTCATC CACCTATCGC AAGGCCATTC AAGTATGTAT TATAAATCCA ATTCAATCAA
601    TTAGCTTTAC TTTTGTTGTA TATATGTGAT GAATAATCAT TTGCATATGT ATTTTCAGGC
661    GAGAACGAAA GTAGCGGAGG CGTTGGGATT GGTAGTGAGA GATCGGAGAA AAGAAAGAGA
721    GATCGGAGAA AAAAGAAAGA ATGATATGTT GGAGGCATTG TTTGAAGGA
  
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SEQ , Gc171, Heinz, Gh13

NAMES: Gc171, Heinz, Gh13

ORIGIN

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Gc171-507F2-R2  GTGGACGGCAGGGTTTTCTCATGGACGAGGCTAAGAAGGTAATCATTTTATTTAATTA 178
Heinz-507FR    ATGGACCGGCAGGGTTTTCTCATGGACGAGGCTAAGAAGGTAATCATTTTATTTAATTA 236
Gh13-507FR    GTGGACCGGCAGGGTTTTCTCATGGACGAGGCTAAGAAGGTAATCATTTTATTTAATTA 240
Consensus     tgggacggcagggttttcctcatggacgaggctaagaaggtaatcattttatTTAATTA

Gc171-507F2-R2 TTTTTC AATTCGGATTGTTGAGTTTTGATGGATTAGAGAATAACAAC TTTAGTGTA TTTG 238
Heinz-507FR    TTTTTC AATTCGGATTGTTGAGTTTTGATGGATTAGAGAATAACAAC TTTAGTGTA GTTG 296
Gh13-507FR    TTTTTC AATTCGGATTGTTGAGTTTTGATGGATTAGAGAATAACAAC TTTAGTGTA GTTG 300
Consensus     tttttcaattcggattgttgagTTTTGATGGATTAGAGAATAACAAC ttttagtgta ttg

Gc171-507F2-R2 TAGTGGGGGTATGATTACTTTTCCAAA.TTAATTAATTAATGGAGACATACTATTATTAT 297
Heinz-507FR    TGGTGGGG.TATGATTACTTTTCCAAAATTAATTAATTAATGGAGACATAGTAGTATTAT 355
Gh13-507FR    TGGTGGGGGTATGATTACTTTTCCAAA.TTAATTAATTAATGGAGACATAGTATTATTAT 359
Consensus     t gTgggg tatgattacttttccaaa ttaattaattaatggagacata ta tattat
  
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| Gc171-507F2-R2 | TAT TAT GTACAAGTAATTATTATGATGATAACACATGTGAATGTGGTGTATCATGACTT | 357 |
| Heinz-507FR | TAT...GTAC G AGTAATTATTATGATGATAACACATGTGAATGTGGTGTATCATGACTT | 412 |
| Gh13-507FR | TAT...GTAC A AGTAATTATTATGATGATAACACATGTGAATGTGGTGTATCATGACTT | 416 |
| Consensus | tat gtac agtaattattatgatgataaacacatgtgaatgtgggtgtatcatgactt | |
| Gc171-507F2-R2 | TTTTTT C TTTT T .TTTT T GGTTGTG GAAAA GTG ATT CAGTTGATGTATG ATG AT | 416 |
| Heinz-507FR | TTTTTT A TTTT AA TTTT T GGTTGTG.....ATG T AT | 446 |
| Gh13-507FR | TTTTTT T CTTTT...TTTT G GGTTGTG GAAAA GT a ATT CAGTT tAT Gg AT G TATG G AT | 473 |
| Consensus | tttttt tttt tttt ggttgtg atg at | |
| Gc171-507F2-R2 | GTGCAGATAACGTTTAACTAACAGTGAAGCAG T TGATGAGTTTTGATCCATGTGAGTGG | 476 |
| Heinz-507FR | GTGCAGATAACGTTTAACTAACAGTGAAGCAG T TGATGAGTTTTGATCCATGTGAGTGG | 506 |
| Gh13-507FR | GTGCAGATAACGTTTAACTAACAGTGAAGCAG C TGATGAGTTTTGATCCATGTGAGTGG | 533 |
| Consensus | gtgcagataacgtttaactaacagtgaaagcag tgatgagttttgatccatgtgagtg | |
| Gc171-507F2-R2 | ACAGAGAATCTGATGAAAGAGTATATGCTTGTATTGAAGGTTTCTTCTGCATTCCTTTG | 536 |
| Heinz-507FR | ACAGAGAATCTGATGAAAGAGTATATGCTTGTATTGAAGGTTTCTTCTGCATTCCTTTG | 566 |
| Gh13-507FR | ACAGAGAATCTGATGAAAGAGTATATGCTTGTATTGAAGGTTTCTTCTGCATTCCTTTG | 593 |
| Consensus | acagagaatctgatgaaagagtatatgcttgttatttgaaggtttcttctgcattcctttg | |
| Gc171-507F2-R2 | CCTATTTTCTCATCCACCTATCGCAAGGCCATTCAAGTATGTATTATAAATCCAATTCAA | 596 |
| Heinz-507FR | CCTATTTTCTCATCCACCTATCGCAAGGCCATTCAAGTATGTATTATAAATCtAATTCAA | 626 |
| Gh13-507FR | CCTATTTTCTCATCCACCTATCGCAAGGCCATTCAAGTATGTATTATAAATCCAATTCAA | 653 |
| Consensus | cctatTTTctcatccacctatcgcaaggccattcaagtatgtattataaatc aattcaa | |
| Gc171-507F2-R2 | T CAATTAGCTTT ACT TTTTGTTG TATATAT GTGATGAATAATCATT TGC ATATGATTTTT. | 655 |
| Heinz-507FR | T TAATTAGCTTT. TACT TGTTG.....GTG G TGAATAATCATT TG TATGATTTTTt | 677 |
| Gh13-507FR | T CAATTAGCTTT ACT TTTTGTTG TATATAT GTG AT GGAATAATCATT TGC ATATGATTTTT. | 712 |
| Consensus | t aattagcttt ttgttg gtg tgaataatcattt tatgtatTTt | |
| Gc171-507F2-R2 | CAGGCGAGAACGAAAGTAGCGGAGGCGTTGGGATTGGTAGTGAGAGATCGGAGAAAAGAA | 715 |
| Heinz-507FR | CAGGCGAGAACGAAAGTAGCGGAGGCGTTGGGATTGGTAGTGAGAGATCGGAGAAAAGAA | 737 |
| Gh13-507FR | CAGGCGAGAACGAAAGTAGCGGAGGCGTTGGGATTGGTAGTGAGAGATCGGAGAAAAGAA | 772 |
| Consensus | caggcgagaaacgaaagtagcggaggcgttgggattggtagtgagagatcggagaaaagaa | |
| Gc171-507F2-R2 | AGAGAGAT CGGAG AAAAA AGAAAGAATGATATGTTGGAGGCATTGTT TGA AGGA | 769 |
| Heinz-507FR | C GAGA...CGGAG GAGAA CGAAAGAATGATATGTTGGAGGCATTGTT C GAAGGA | 788 |
| Gh13-507F2-R2 | AGAGAGAT CGGAG AAAAA AGAAAGAATGATATGTTGGAGGCATTGTT TGA AGGA | 826 |
| Consensus | gaga cggag a aa gaaagaatgatatgttggaggcattggtt gaagga | |

Comments: Sequence Gc171≠Heinz≠Gh13 [There is an introgression from wild species *S. chilense* (Gc171) and *S. habrochaites* (Gh13, which equals sequence from *S. chilense* LA2779 in Gc9) found in begomovirus-resistant breeding lines.]