

TG279, SGN data, RFLP probe, 900 bp, 80.0 cM, chromosome 6, June 8, 2006

Christopher T. Martin and Douglas Maxwell, University of Wisconsin-Madison

PCR primers:

TG279F2, 5' GGATGATTTCTACTACCTCTAGG, (23nt)

TG279R1, 5' GGTGCCAATTTCTACGTTATG, (21 nt)

Heinz 1706, 842 bp;

```
1   GGATGATTTTC TACTACCTCT AGGAAACTCA GGAATCTGGA AAAGTCAAAT GAGGGGTCAG
61  ATGATGCAAT TTCAAACATA GAAGGGCCAG CTCAGTTTTT CAGGCATCCA GTACATGCTG
121 CACCAGGAAA AGATCTTGAA ACTGGTCTTC AACCTTTAAA TCTCAATGAC TCTGGCTATG
181 CTACCTCCTT GTTAGATAGA AATTTGCCCA TATACATGAA CTGCCCCCAT TGCATGGAGT
241 TGAAGAGTAA GAATGACCAA ACAGATGCGA GATTTGCAGG AACCATTTCA CAGCTCCAGA
301 GGATCTTTCT GGTGGAGTC TTAATCTGTA TCTTTGGCTA TTTTCCTCAA CTTCCCTGAA
361 TCTTTATGAC CTCATAAAGA AGTATCTTTT TTATGTGATG TCATTTTTTA GTGCTTATCT
421 CATCCATTGT TTCTATTAAT CTAATGAACA GGCTTAGATG ATATGGTTTT ATGTGTTGAG
481 TGCCTAAACC AATTATGAGT GGATTAAGAG ACAACTCATA ATGTAAACAT GTGTTTTAAG
541 ATATCTGCAC TTACCCTGTT TTTGTAAATT CATTTGCTTA TTTTCACCGA CTTTCGTGGAC
601 ATATCAGCAG TCTATTCATG GCCAAGGCTG CGTATGAGGA AATTTAAAAG AAATATAAGA
661 TATTAGAGAT CTGTTGGTCT TCTCTATTCA ACTTATAGTT GGATACTATT TAATATTTTC
721 TGTTTTAAAG ACCTATTTCT AGTGAAATAC AGTGAAATGT GGCNTGTTAG CTAACACNTT
781 GAAATTGTGG GTAAC TAGAG AAGTGGGTTA CTTGCAAATA ACATAACGTA GAAATTGGCA
841 CC
```

Lal1777_279F2, Genbank Accession DQ855122, 792 bp;

```
1   AGGGGTCAGA TGACGCAATT TCAAACATAG AAGGGCCAGC TCAGTTTTTC AGGCATCCAG
61  TACATGCTGC ACCAGGAAAA GATCTTGAAA CTGGTCTTCA ACCTCTAAAT CTCAATGACT
121 CTGGCTATGC TACCTCCTTG TTAGATAGAA GTTTGCCCAT ATACATGAAC TGCCCCCATT
181 GCATGGAGTT GAAGAGTAAG AATGACCAAA CAGATGTGAG ATTTGCAGGA ACCATTTTAC
241 AGCTCCAGAG GATCTTTCTG GTTGGAGTCT TACTTCTGAT ATTTGGCTAT TTTCTCAAC
301 TTCCCTGAAT CTTTATGACC TCCTAAAGAA GTATCTTTTT TATGTGATGT CTTTTTTAAG
361 TGCTTATCTC ATCCACTGTT TCTATTAATC TAATGAACAG GCTTAGATGA TATGGTTTTA
421 TGTTGTTGAG TGCCTAAACC AATTATGAGT GGATTAAGAG ACAACTCATA ATGTAAACAT
481 GTGTTTTAAG ATATCTGCAC TTACCCTGTT TTTGTAAATT CATTTGCTTA TTTTCACCAA
541 CTTTCGTGGAC ATATCAGCAG TCTATTCATG GCCAAGGCTG CGTGTGAGGA AATTTAAAGG
601 AAATATAAGA TATTAGAGAT CTGTTGGTCT TCTCTATTCA ACTTATAGTA GGATACTGTT
661 TAATATTTTC TGTTTTAAANG ACCTATTTCT AGTGAAATAC AGTGAAATGT GGCATGTTAG
721 CTAACACATT GAAATTGTGG GTAAC TAGAG AAGTGGGTTA CTTGCAAATA ACATAACGTA
781 GAAATTGGCA CC
```

Blast Search GenBank:

No match.

Blast Search BAC clones SGN:

No match.

Comparison with breeding lines used in Guatemala:

Heinz = Gc9 = Gh13 not equal to *S. habrochaites* (LA1777, which has at least 10 SNPs and one Indel). Gc9 is resistant to begomoviruses and has an introgression for *S. chilense* (LA2779). Gh13 is selected from FAVI 9 hybrid, which has resistance derived from *S. habrochaites* (LA1777 and LA0386).