

# Marker C\_2At3g56040 at 19 cM on Chromosome 6

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Primers: The sequence of the COSII marker matched exons from *Vitis vinifera* (AM429121). Several primers were designed to amplify two introns. Two sets of primers gave single bands and one set of primers gave multiple bands. A strong single band was obtained with the following primers:

P6-19F1: 5' GAA TGT TCT AGG TTC TCC AAG GAT CG  
P6-19R1: 5' CAT TTT GTA ACC ATC TGG AAC TTC

PCR conditions: annealing temperature at 53 C.

## RIL families:

Gh13 was the source of resistance for the RILs and it is known to have an introgression from about 22 cM to 32 cM. RIL34 has the Ty3 introgression marker at 25 cM and RIL5 does not have the Ty3 introgression marker.

W312 = RIL34 has Ty3 introgression and is resistant  
W316 = RIL5 does not have Ty3 introgression and is susceptible.

Upper line: W312-P6-19FR, from 1 to 748  
Lower line: W316-P6-19FR, from 1 to 752

W312-P6-19FR:W316-P6-19FR identity= 98.40%(736/748) gap=0.53%(4/752)

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1      GAATGTTCTAGGTTCTCCAAGGATCGATGAAAATGGTGAAACTGTTCTTCACTATGGAAA
      |||
1      GAATGTTCTAGGTTCTCCAAGGATCGATGAAAATGGTGAAACTGTTCTTCACTATGGAAA

61     AAGGTAGAAGTCCACCTATTTGTTTGATTATTGAATTGACTAGTTTGGAAGATGTACATT
      |||
61     AAGGTAGAAGTCCACCTATTTGTTTGATTATTGAATTGACTAGTTTGGAAGATGTACATT

121    TAATGATAAAATCCTCTATGTAGGTGTGGGAGATGTAAGCTGGAGAATGTCAAGATATTG
      |||
121    TAATGATAAAATCCTCTATGTAGGTGTGGGAGATGTAAGCTGGAGAATGTCAAGATATTG

181    AATGATGGAATTGATTGGAATGCAAGAGAAAATTTATACTGGAAGCACGATGTGCAGCGG
      |||
181    AATGATGGAATTGATTGGAATGCAAGAGAAAATTTATACTGGAAGCACGATGTGCAGCGG

241    TTTGAGGCAGTAAAGGTTATACTTCACGGAAATGCTGAATTTGAAGCAGTGGATGTTATA
      |||
241    TTTGAGGCAGTTAAGGTTATACTTCACGGAAATGCTGAATTTGAAGCAGTGGATGTTATA

301    TTGCAGGTTTGCTTGACTTTAGATTATATGATTAGCATTGAAACATGCAAAAATGTAGTT
      |||
301    TTGCAGGTTTGCTTGACTTTAGATTATATGATTAGCATTGAGCTTGCAAAAATGTAGTT
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361    GTGAATTCCTGTTGTACTTTGGGAGTTACGTTATCACCAACTTATGCAAATACAACTCTG
      |||
361    GTGAATTCCTGTTGTACTTTGGGAGTTACGTTATCACCAACTTATGCAAATACGACTCTG

421    TTAAGTTGTATGTTATAGTTTTCTGTCCCAGATTGCCCTTGAAGAGGGAGGGTTTGTGG
      |||
421    TTAAGTTGTATGTTATAGTTTTCTGTCCCAGATTGCCCTTGAAGAGGGAGGGTTTGTGG
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