**Michael Lorentsen**

**EC 3.1.3.1 not found in *Vaccinium corymbosum* (blueberry) when compared to either *vitis vinifera* or *Arabidopsis thaliana***

-Took AA sequence of 3.1.3.1 *vitis vinifera* (wine grape) and did tblastn versus blueberry 454 scaffolds, obtained 0 hits

- Took AA sequence of 3.1.3.1 *Arabidopsis thaliana* and did tblastn versus blueberry 454 scaffolds, obtained 3 hits with e values of 2.3, 3.0, and 6.7 respectively

**EC 6.3.4.3 found in Scaffold 00232 (query sequence starts at base 226382 on scaffold)**

1)

For Primer GTCCCTAAAGCTTCTGAAAGCA

Rev Primer AAACGGGTAGTTATTCAAGCCA

repeats (tc) x17 PCR product = 257 bp & start at base 189800

2)

For Primer TTCTCCTACAACTCCTCTTCGC

Rev Primer TGAGTAGCCGGTGGTATTAGGT

repeats (cca) x8 PCR product = 162 bp & start at base 214077

3)

For Primer CTTCAAGGTGCCTCATCTCTCT

Rev Primer GTCATAAATTGAACCTCCGCTC

repeats (tc) x8 PCR product = 226 bp & start at base 217434

**EC 6.3.4.3 found in Scaffold 00890 (query sequence starts at base 5799 on scaffold)**

1)

For Primer GATTGACAAGCAACAGGTTCAT

Rev Primer TTTCTTCGGACTTCGGTAATGT

repeats (ga) x10 PCR product = 275 bp & start at base 4297

2)

For Primer GCTTTGTCCATCTTTTGAGAGG

Rev Primer ATGGAAAGTGAGAAGAAACCCA

repeats (ag) x11 PCR product = 117 bp & start at base 50142

3)

For Primer ATAAATGGGTGGAGTATGGCAG

Rev Primer CCCAAGCAAATTCTCAACTAGC

repeats (tct) x18 PCR product = 215 bp & start at base 53835



Figure 1: EC: 6.3.4.3 is a 637 amino acid sequence from *Vitis vinifera* and was blasted against V. corymbosum 454-scaffolds. The results are depicted above. Scaffold 232 is mapped in blue and scaffold 890 is mapped in red. The e values are shown in each box and the amino acid query values as well as the nucleotide subjects are shown above each box (i.e. 3/229695). The reading frame is also shown above each box.