

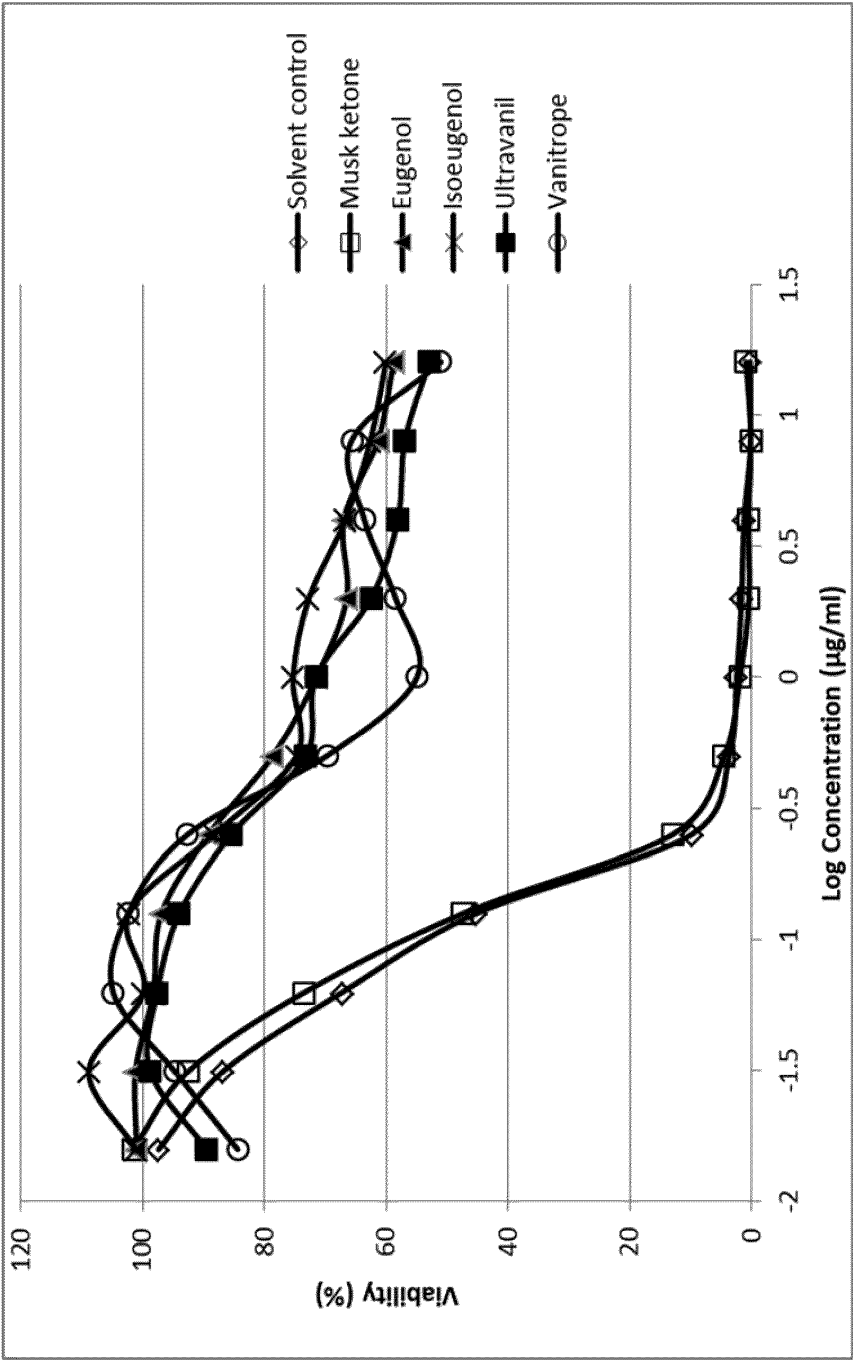


FIGURE 1

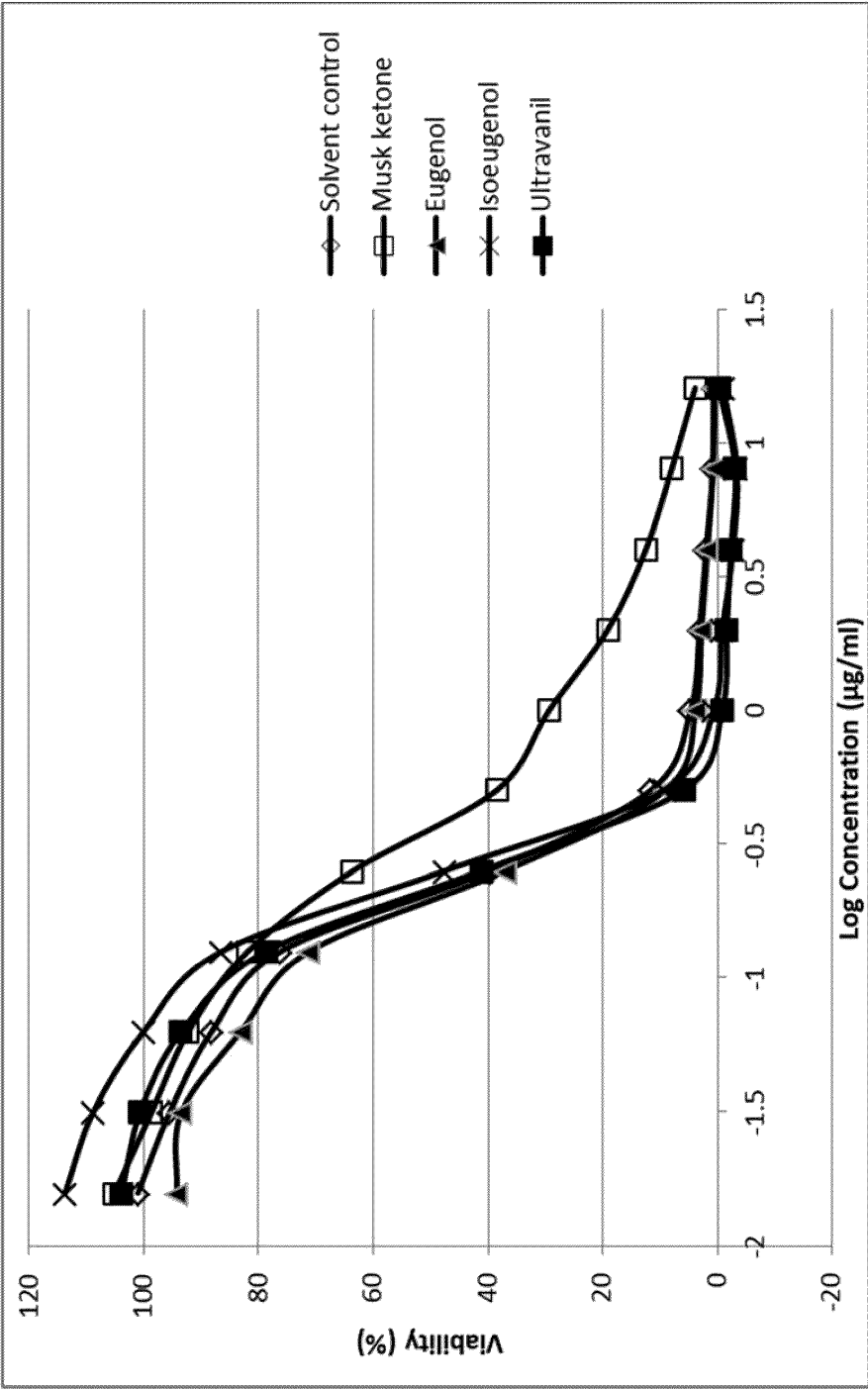


FIGURE 2

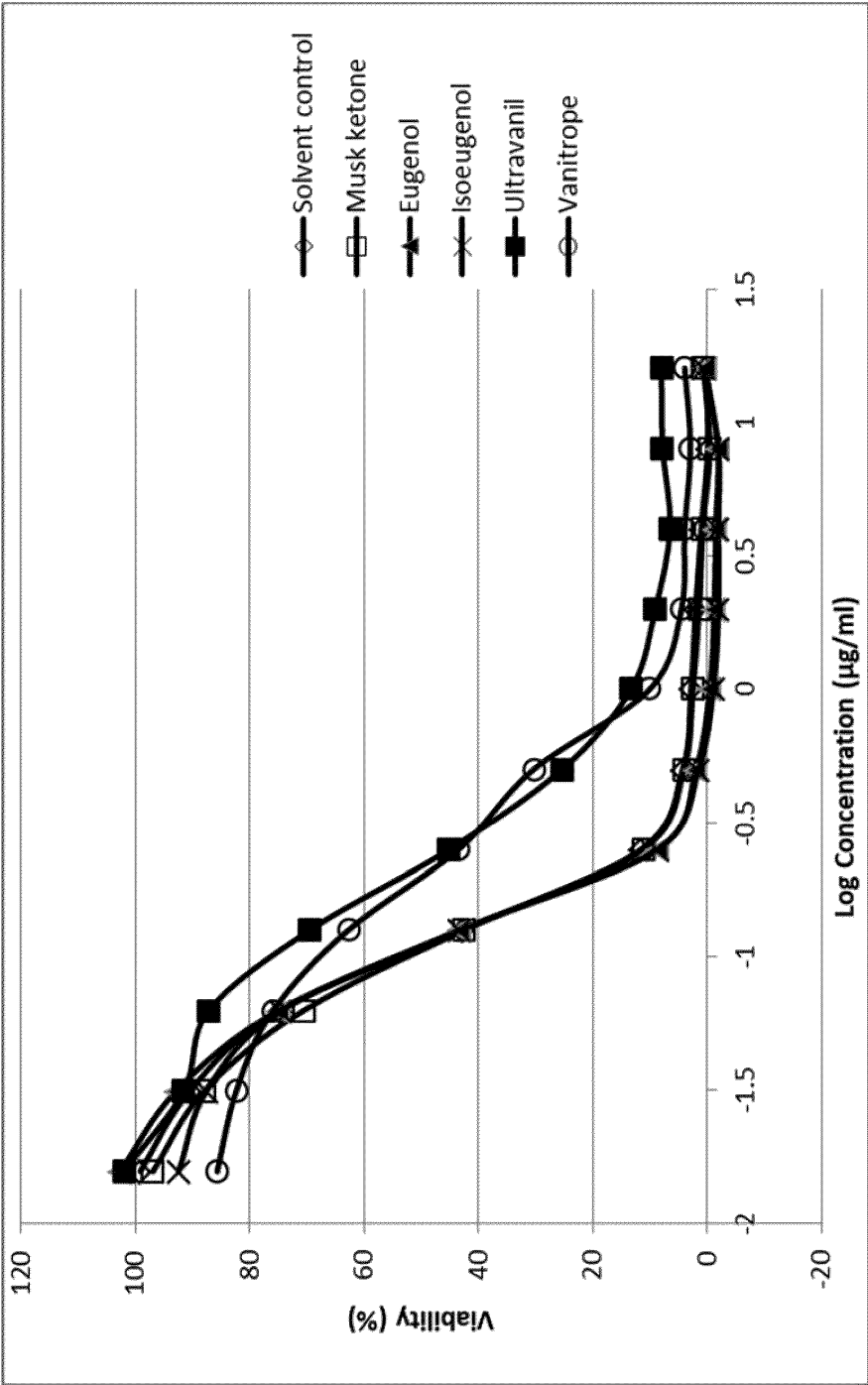


FIGURE 3

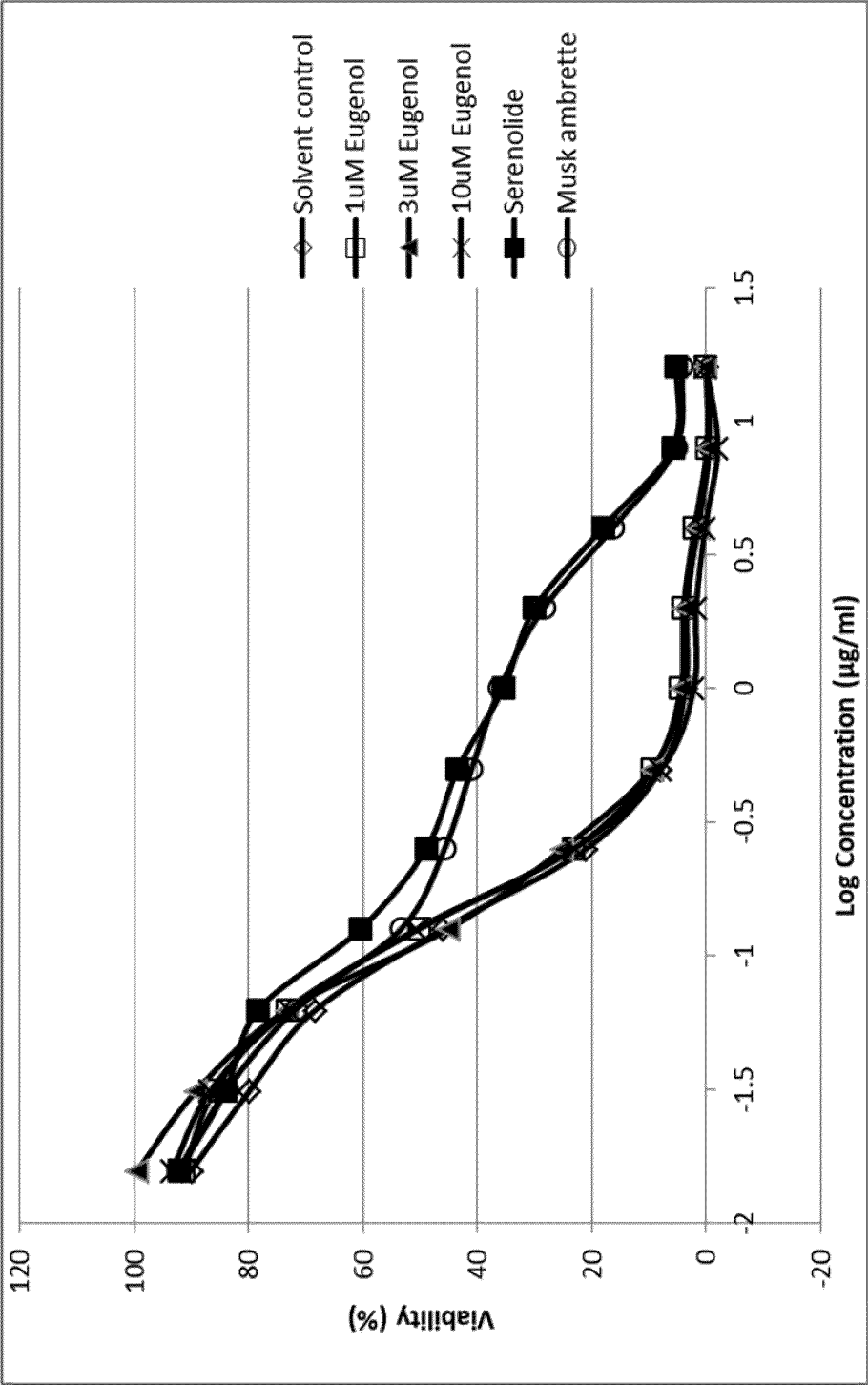


FIGURE 4

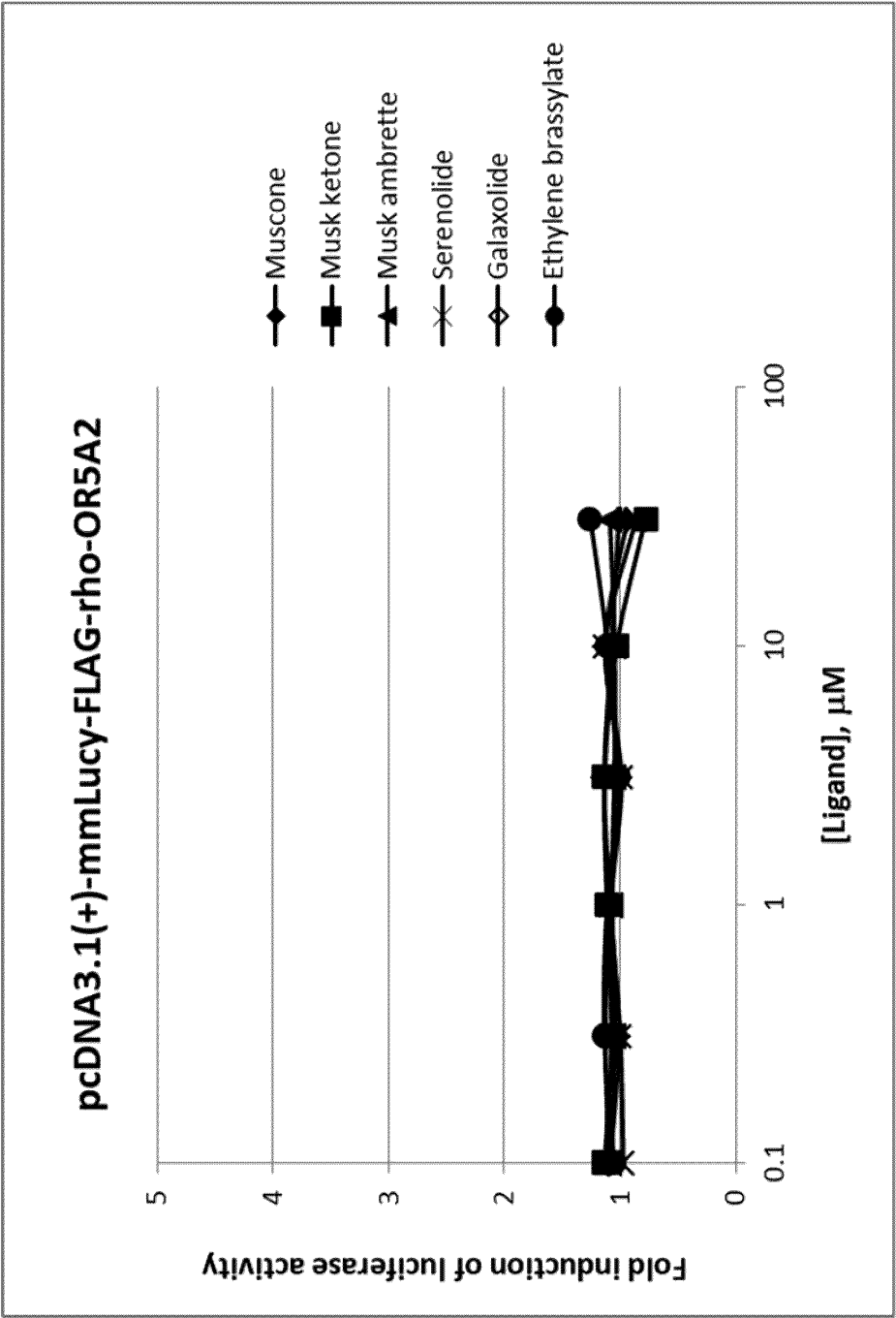


FIGURE 5A

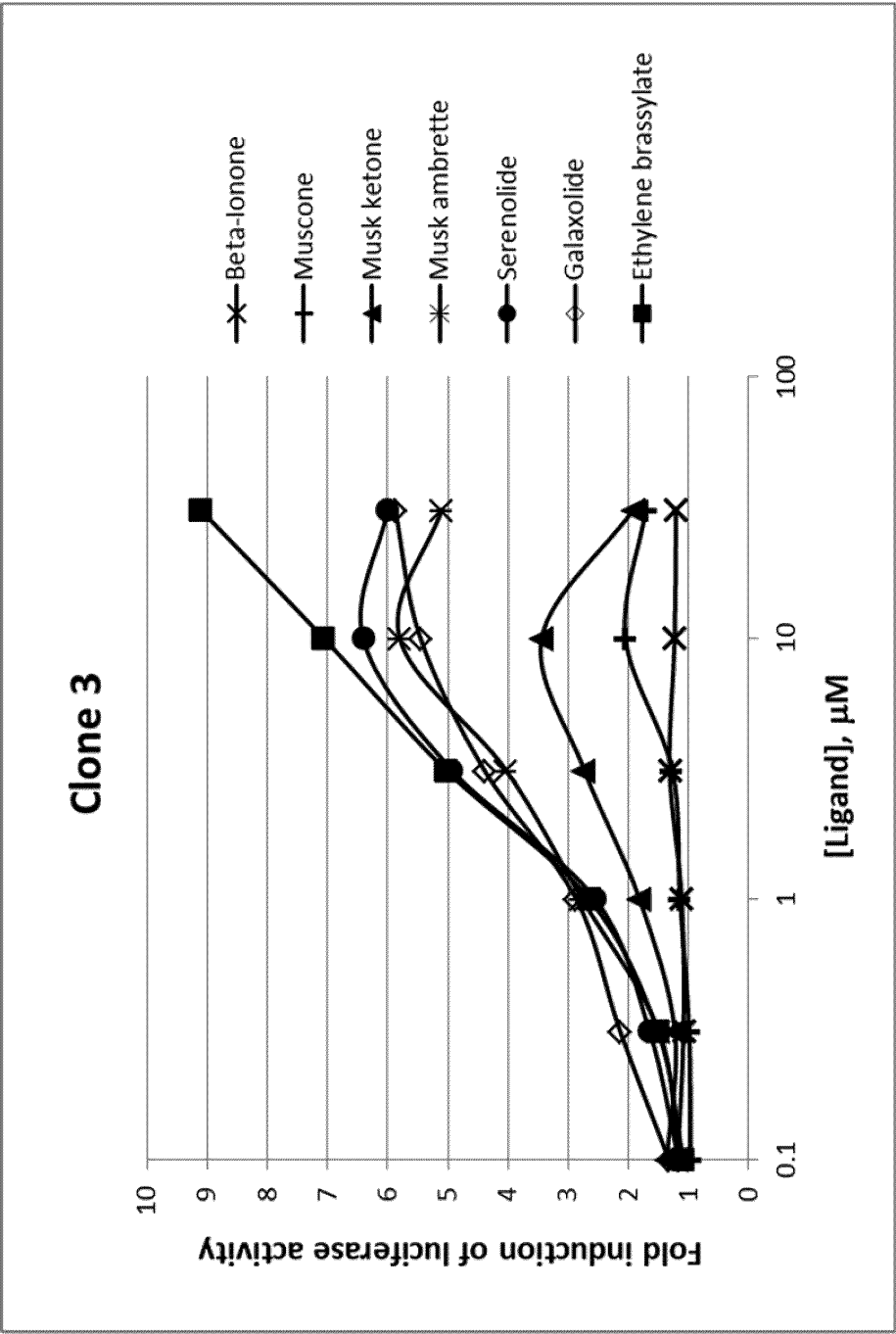


FIGURE 5B

OR5A2-WT: VVSIFYALVIPVVNPLIYSE RNKEIK NAM RK AME RDPGISHGGPFIFMTLG
OR5A2-Clone3: VVSIFYALVIPVVNPLIYSE RNKEIK NAM RK AME SWPRCCRSW

FIGURE 6

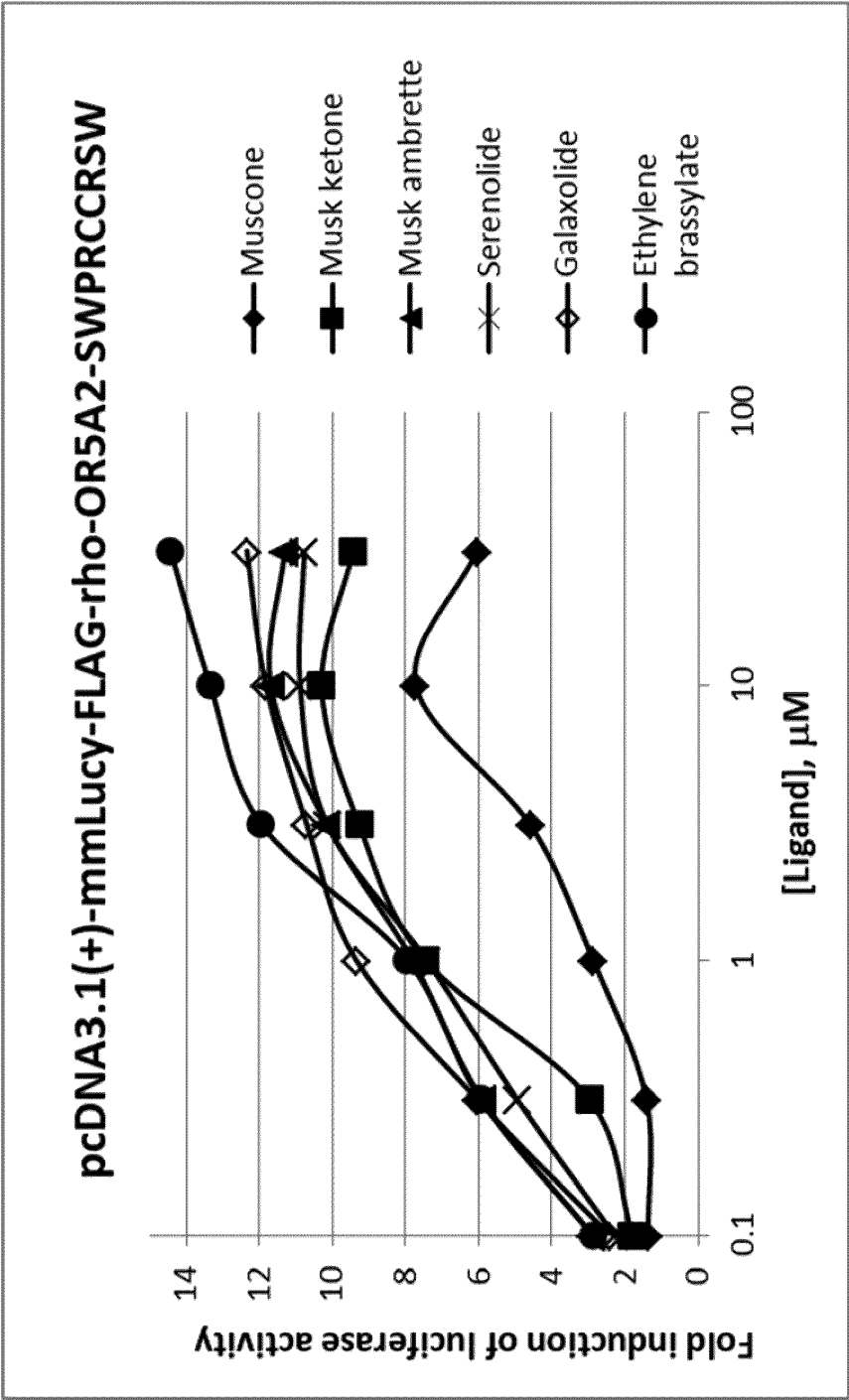


FIGURE 7

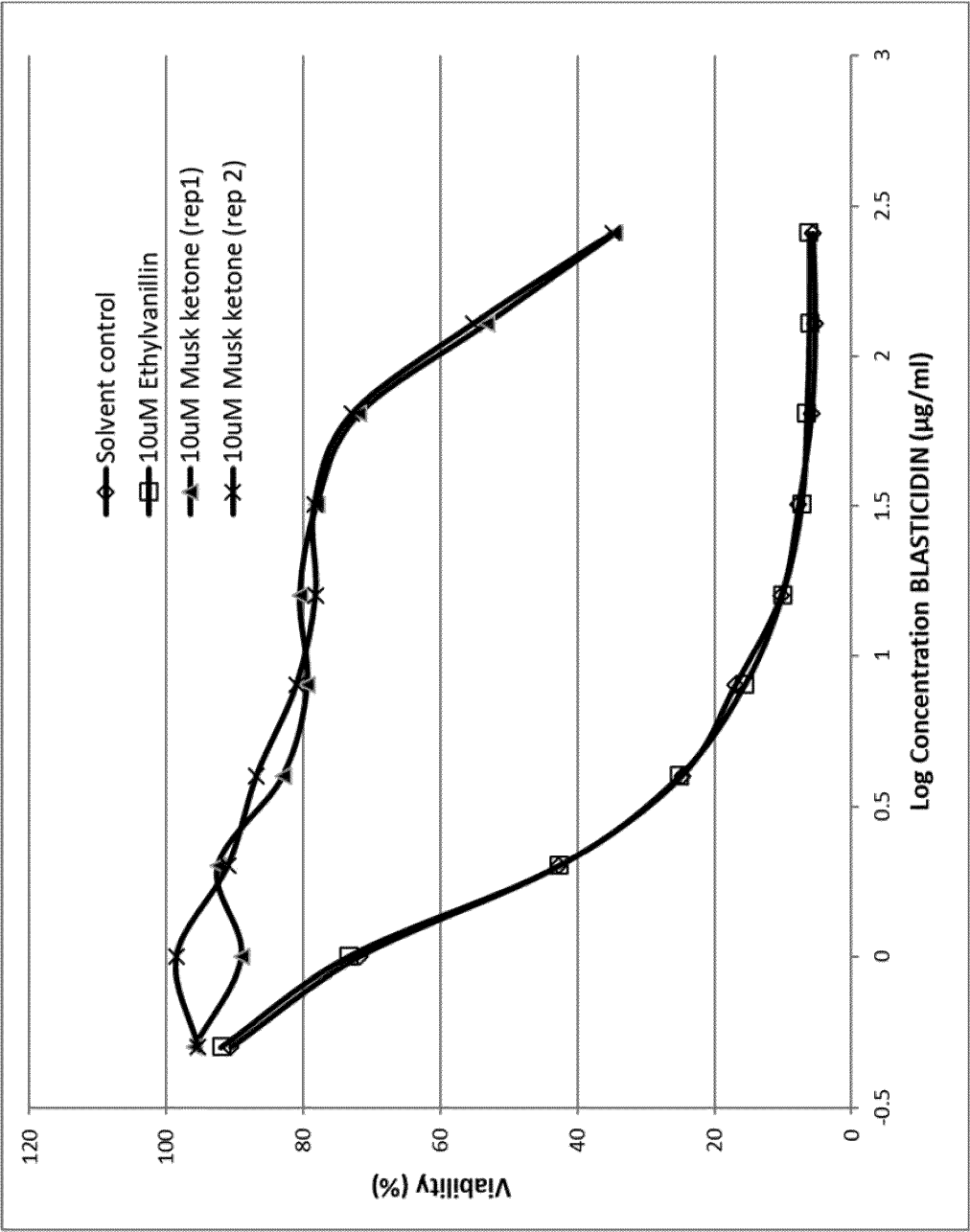


FIGURE 8

```
OR5AN1 PCR      ACAAGGACGACGACGATAAGATCGAATTGATGAACGGGACCGAGGGCCCAAACCTTCTACG
M1              -----GGNN-CGAGGGCCCAAACCTTCTACG
M2              -----CGGNN-CGAGGGCCCAAACCTTCTACG
M3              -----GG-CCNAACTTCTACG
M4              -----GCCNNAAM-TTCTACG
M5              -----GAGGG-CCAAACCTTCTACG
M6              -----GAGGG-CCAAACCTTCTACG
M7              -----GAGGGCCCAAACCTTCTACG
M8              -----AN-----GGCCC-AAMTTCTACG
M9              -----NNAAAMTTYTACG
                  *  **  ****

OR5AN1 PCR      TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTCATGACTGGGGGAGGAAATATTACAG
M1              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTCATGACTGGGGGAGGAAATATTACAG
M2              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTCATGACTGGGGGAGGAAATATTACAG
M3              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTCATGACTGGGGGAGGAAATATTACAG
M4              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTCATGACTGGGGGAGGAAATATTACAG
M5              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTCATGACTGGGGGAGGAAATATTACAG
M6              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTCATGACTGGGGGAGGAAATATTACAG
M7              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTCATGACTGGGGGAGGAAATATTACAG
M8              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTCATGACTGGGGGAGGAAATATTACAG
M9              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTCATGACTGGGGGAGGAAATATTACAG
                  *****

OR5AN1 PCR      AAATCACCTATTTTCATCCTGCTGGGATTCTCAGATTTTCCCAGGATCATAAAAGTGCTCT
M1              AAATCACCTATTTTCATCCTGCTGGGATTCTCAGATTTTCCCAGGATCATAAAAGTGCTCT
M2              AAATCACCTATTTTCATCCTGCTGGGATTCTCAGATTTTCCCAGGATCATAAAAGTGCTCT
M3              AAATCACCTATTTTCATCCTGCTGGGATTCTCAGATTTTCCCAGGATCATAAAAGTGCTCT
M4              AAATCACCTATTTTCATCCTGCTGGGATTCTCAGATTTTCCCAGGATCATAAAAGTGCTCT
M5              AAATCACCTATTTTCATCCTGCTGGGATTCTCAGATTTTCCCAGGATCATAAAAGTGCTCT
M6              AAATCACCTATTTTCATCCTGCTGGGATTCTCAGATTTTCCCAGGATCATAAAAGTGCTCT
M7              AAATCACCTATTTTCATCCTGCTGGGATTCTCAGATTTTCCCAGGATCATAAAAGTGCTCT
M8              AAATCACCTATTTTCATCCTGCTGGGATTCTCAGATTTTCCCAGGATCATAAAAGTGCTCT
M9              AAATCACCTATTTTCATCCTGCTGGGATTCTCAGATTTTCCCAGGATCATAAAAGTGCTCT
                  *****

OR5AN1 PCR      TCACTATATTCCTGGTGATCTACATTACATCTCTGGCCTGGAACCTCTCCCTCATTGTTT
M1              TCACTATATTCCTGGTGATCTACATTACATCTCTGGCCTGGAACCTCTCCCTCATTGTTT
M2              TCACTATATTCCTGGTGATCTACATTACATCTCTGGCCTGGAACCTCTCCCTCATTGTTT
M3              TCACTATATTCCTGGTGATCTACATTACATCTCTGGCCTGGAACCTCTCCCTCATTGTTT
M4              TCACTATATTCCTGGTGATCTACATTACATCTCTGGCCTGGAACCTCTCCCTCATTGTTT
M5              TCACTATATTCCTGGTGATCTACATTACATCTCTGGCCTGGAACCTCTCCCTCATTGTTT
M6              TCACTATATTCCTGGTGATCTACATTACATCTCTGGCCTGGAACCTCTCCCTCATTGTTT
M7              TCACTATATTCCTGGTGATCTACATTACATCTCTGGCCTGGAACCTCTCCCTCATTGTTT
M8              TCACTATATTCCTGGTGATCTACATTACATCTCTGGCCTGGAACCTCTCCCTCATTGTTT
M9              TCACTATATTCCTGGTGATCTACATTACATCTCTGGCCTGGAACCTCTCCCTCATTGTTT
                  *****

OR5AN1 PCR      TAATAAGGATGGATTCCCACCTCCATACACCCATGTATTCTTCTCAGTAACCTGTCTCT
M1              TAATAAGGATGGATTCCCACCTCCATACACCCATGTATTCTTCTCAGTAACCTGTCTCT
M2              TAATAAGGATGGATTCCCACCTCCATACACCCATGTATTCTTCTCAGTAACCTGTCTCT
M3              TAATAAGGATGGATTCCCACCTCCATACACCCATGTATTCTTCTCAGTAACCTGTCTCT
M4              TAATAAGGATGGATTCCCACCTCCATACACCCATGTATTCTTCTCAGTAACCTGTCTCT
M5              TAATAAGGATGGATTCCCACCTCCATACACCCATGTATTCTTCTCAGTAACCTGTCTCT
M6              TAATAAGGATGGATTCCCACCTCCATACACCCATGTATTCTTCTCAGTAACCTGTCTCT
M7              TAATAAGGATGGATTCCCACCTCCATACACCCATGTATTCTTCTCAGTAACCTGTCTCT
M8              TAATAAGGATGGATTCCCACCTCCATACACCCATGTATTCTTCTCAGTAACCTGTCTCT
M9              TAATAAGGATGGATTCCCACCTCCATACACCCATGTATTCTTCTCAGTAACCTGTCTCT
                  *****
```

FIGURE 9A

OR5AN1 PCR
M1 TCATAGATGCTCTGCTATATCAGCTCCACAGTCCCCAAGATGCTCTCCAACCTCTTACAGG
M2 TCATAGATGCTCTGCTATATCAGCTCCACAGTCCCCAAGATGCTCTCCAACCTCTTACAGG
M3 TCATAGATGCTCTGCTATATCAGCTCCACAGTCCCCAAGATGCTCTCCAACCTCTTACAGG
M4 TCATAGATGCTCTGCTATATCAGCTCCACAGTCCCCAAGATGCTCTCCAACCTCTTACAGG
M5 TCATAGATGCTCTGCTATATCAGCTCCACAGTCCCCAAGATGCTCTCCAACCTCTTACAGG
M6 TCATAGATGCTCTGCTATATCAGCTCCACAGTCCCCAAGATGCTCTCCAACCTCTTACAGG
M7 TCATAGATGCTCTGCTATATCAGCTCCACAGTCCCCAAGATGCTCTCCAACCTCTTACAGG
M8 TCATAGATGCTCTGCTATATCAGCTCCACAGTCCCCAAGATGCTCTCCAACCTCTTACAGG
M9 TCATAGATGCTCTGCTATATCAGCTCCACAGTCCCCAAGATGCTCTCCAMCCTCTTACAGG

OR5AN1 PCR
M1 AACAGCAAATATCACTTTTGTGGTTGTATTATTCAGTACTTTATCTTTTCAACGATGG
M2 AACAGCAAATATCACTTTTGTGGTTGTATTATTCAGTACTTTATCTTTTCAACGATGG
M3 AACAGCAAATATCACTTTTGTGGTTGTATTATTCAGTACTTTATCTTTTCAACGATGG
M4 AACAGCAAATATCACTTTTGTGGTTGTATTATTCAGTACTTTATCTTTTCAACGATGG
M5 AACAGCAAATATCACTTTTGTGGTTGTATTATTCAGTACTTTATCTTTTCAACGATGG
M6 AACAGCAAATATCACTTTTGTGGTTGTATTATTCAGTACTTTATCTTTTCAACGATGG
M7 AACAGCAAATATCACTTTTGTGGTTGTATTATTCAGTACTTTATCTTTTCAACGATGG
M8 AACAGCAAATATCACTTTTGTGGTTGTATTATTCAGTACTTTATCTTTTCAACGATGG
M9 AACAKCAAATATCACTTTTGTGGTTGTATTATTCAGTACTTTATCTTTTCAACGATGG
**** *****

OR5AN1 PCR
M1 GACTGAGTGAGTCTTGTCTCATGACAGCCATGGCTTATGATCGTTATGCTGCCATTGTGA
M2 GACTGAGTGAGTCTTGTCTCATGACAGCCATGGCTTATGATCGTTATGCTGCCATTGTGA
M3 GACTGAGTGAGTCTTGTCTCATGACAGCCATGGCTTATGATCGTTATGCTGCCATTGTGA
M4 GACTGAGTGAGTCTTGTCTCATGACAGCCATGGCTTATGATCGTTATGCTGCCATTGTGA
M5 GACTGAGTGAGTCTTGTCTCATGACAGCCATGGCTTATGATCGTTATGCTGCCATTGTGA
M6 GACTGAGTGAGTCTTGTCTCATGACAGCCATGGCTTATGATCGTTATGCTGCCATTGTGA
M7 GACTGAGTGAGTCTTGTCTCATGACAGCCATGGCTTATGATCGTTATGCTGCCATTGTGA
M8 GACTGAGTGAGTCTTGTCTCATGACAGCCATGGCTTATGATCGTTATGCTGCCATTGTGA
M9 GACTGAGTGAGTCTTGTCTCATGACAGCCATGGCTTATGATCGTTATGCTGCCATTGTGA

OR5AN1 PCR
M1 ACCCCCTGCTCTATTATCCATCATGTACCCACCCTCTGTGTTGGATGGTACTGGGAG
M2 ACCCCCTGCTCTATTATCCATCATGTACCCACCCTCTGTGTTGGATGGTACTGGGAG
M3 ACCCCCTGCTCTATTATCCATCATGTACCCACCCTCTGTGTTGGATGGTACTGGGAG
M4 ACCCCCTGCTCTATTATCCATCATGTACCCACCCTCTGTGTTGGATGGTACTGGGAG
M5 ACCCCCTGCTCTATTATCCATCATGTACCCACCCTCTGTGTTGGATGGTACTGGGAG
M6 ACCCCCTGCTCTATTATCCATCATGTACCCACCCTCTGTGTTGGATGGTACTGGGAG
M7 ACCCCCTGCTCTATTATCCATCATGTACCCACCCTCTGTGTTGGATGGTACTGGGAG
M8 ACCCCCTGCTCTATTATCCATCATGTACCCACCCTCTGTGTTGGATGGTACTGGGAG
M9 ACCCCCTGCTCTATTATCCATCATGTACCCACCCTCTGTGTTGGATGGTACTGGGAG

OR5AN1 PCR
M1 CCTACATGACTGGCCTCACTGCTTCTTTATTCCAAATTGGTGCTTGCTTCAACTCCACT
M2 CCTACATGACTGGCCTCACTGCTTCTTTATTCCAAATTGGTGCTTGCTTCAACTCCACT
M3 CCTACATGACTGGCCTCACTGCTTCTTTATTCCAAATTGGTGCTTGCTTCAACTCCACT
M4 CCTACATGACTGGCCTCACTGCTTCTTTATTCCAAATTGGTGCTTGCTTCAACTCCACT
M5 CCTACATGACTGGCCTCACTGCTTCTTTATTCCAAATTGGTGCTTGCTTCAACTCCACT
M6 CCTACATGACTGGCCTCACTGCTTCTTTATTCCAAATTGGTGCTTGCTTCAACTCCACT
M7 CCTACATGACTGGCCTCACTGCTTCTTTATTCCAAATTGGTGCTTGCTTCAACTCCACT
M8 CCTACATGACTGGCCTCACTGCTTCTTTATTCCAAATTGGTGCTTGCTTCAACTCCACT
M9 CCTACATGACTGGCCTCACTGCTTCTTTATTCCAAATTGGTGCTTGCTTCAACTCCACT

FIGURE 9B

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OR5AN1 PCR      TCTGTGGGTCTAATGTCATCAGACATTTCTTCTGTGACATGCCCCAACTGTTAATCTTGT
M1              TCTGTGGGTCTAATGTCATCAGACATTTCTTCTGTGACATGCCCCAACTGTTAATCTTGT
M2              TCTGTGGGTCTAATGTCATCAGACATTTCTTCTGTGACATGCCCCAACTGTTAATCTTGT
M3              TCTGTGGGTCTAATGTCATCAGACATTTCTTCTGTGACATGCCCCAACTGTTAATCTTGT
M4              TCTGTGGGTCTAATGTCATCAGACATTTCTTCTGTGACATGCCCCAACTGTTAATCTTGT
M5              TCTGTGGGTCTAATGTCATCAGACATTTCTTCTGTGACATGCCCCAACTGTTAATCTTGT
M6              TCTGTGGGTCTAATGTCATCAGACATTTCTTCTGTGACATGCCCCAACTGTTAATCTTGT
M7              TCTGTGGGTCTAATGTCATCAGACATTTCTTCTGTGACATGCCCCAACTGTTAATCTTGT
M8              TCTGTGGGTCTAATGTCATCAGACATTTCTTCTGTGACATGCCCCAACTGTTAATCTTGT
M9              TCTGTGGGTCTAATGTCATCAGACATTTCTTCTGTGACATGCCCCAACTGTTAATCTTGT
*****

OR5AN1 PCR      CCTGTACTGACACTTTCTTTGTACAGGTCATGACTGCTATATTAACCATGTTCTTTGGGA
M1              CCTGTACTGACACTTTCTTTGTACAGGTCATGACTGCTATATTAACCATGTTCTTTGGGA
M2              CCTGTACTGACACTTTCTTTGTACAGGTCATGACTGCTATATTAACCATGTTCTTTGGGA
M3              CCTGTACTGACACTTTCTTTGTACAGGTCATGACTGCTATATTAACCATGTTCTTTGGGA
M4              CCTGTACTGACACTTTCTTTGTACAGGTCATGACTGCTATATTAACCATGTTCTTTGGGA
M5              CCTGTACTGACACTTTCTTTGTACAGGTCATGACTGCTATATTAACCATGTTCTTTGGGA
M6              CCTGTACTGACACTTTCTTTGTACAGGTCATGACTGCTATATTAACCATGTTCTTTGGGA
M7              CCTGTACTGACACTTTCTTTGTACAGGTCATGACTGCTATATTAACCATGTTCTTTGGGA
M8              CCTGTACTGACACTTTCTTTGTACAGGTCATGACTGCTATATTAACCATGTTCTTTGGGA
M9              CCTGTACTGACACTTTCTTTGTACAGGTCATGACTGCTATATTAACCATGTTCTTTGGGA
*****

OR5AN1 PCR      TAGCAAGTGCCCTAGTTATCATGATATCCTATGGCTATATTGGCATCTCCATCATGAAGA
M1              TAGCAAGTGCCCTAGTTATCATGATATCCTATGGCTATATTGGCATCTCCATCATGAAGA
M2              TAGCAAGTGCCCTAGTTATCATGATATCCTATGGCTATATTGGCATCTCCATCATGAAGA
M3              TAGCAAGTGCCCTAGTTATCATGATATCCTATGGCTATATTGGCATCTCCATCATGAAGA
M4              TAGCAAGTGCCCTAGTTATCATGATATCCTATGGCTATATTGGCATCTCCATCATGAAGA
M5              TAGCAAGTGCCCTAGTTATCATGATATCCTATGGCTATATTGGCATCTCCATCATGAAGA
M6              TAGCAAGTGCCCTAGTTATCATGATATCCTATGGCTATATTGGCATCTCCATCATGAAGA
M7              TAGCAAGTGCCCTAGTTATCATGATATCCTATGGCTATATTGGCATCTCCATCATGAAGA
M8              TAGCAAGTGCCCTAGTTATCATGATATCCTATGGCTATATTGGCATCTCCATCATGAAGA
M9              TAGCAAGTGCCCTAGTTATCATGATATCCTATGGCTATATTGGCATCTCCATCATGAAGA
*****

OR5AN1 PCR      TCACTTCAGCTAAAGGCAGGTCCAAGGCATTCAACACCTGTGCTTCTCATCTAACAGCTG
M1              TCACTTCAGCTAAAGGCAGGTCCAAGGCATTCAACACCTGTGCTTCTCATCTAACAGCTG
M2              TCACTTCAGCTAAAGGCAGGTCCAAGGCATTCAACACCTGTGCTTCTCATCTAACAGCTG
M3              TCACTTCAGCTAAAGGCAGGTCCAAGGCATTCAACACCTGTGCTTCTCATCTAACAGCTG
M4              TCACTTCAGCTAAAGGCAGGTCCAAGGCATTCAACACCTGTGCTTCTCATCTAACAGCTG
M5              TCACTTCAGCTAAAGGCAGGTCCAAGGCATTCAACACCTGTGCTTCTCATCTAACAGCTG
M6              TCACTTCAGCTAAAGGCAGGTCCAAGGCATTCAACACCTGTGCTTCTCATCTAACAGCTG
M7              TCACTTCAGCTAAAGGCAGGTCCAAGGCATTCAACACCTGTGCTTCTCATCTAACAGCTG
M8              TCACTTCAGCTAAAGGCAGGTCCAAGGCATTCAACACCTGTGCTTCTCATCTAACAGCTG
M9              TCACTTCAGCTAAAGGCAGGTCCAAGGCATTCAACACCTGTGCTTCTCATCTAACAGCTG
*****

OR5AN1 PCR      TTTCCCTCTTCTATACATCAGGAATCTTTGTCTATTGAGTTCCAGCTCTGGAGGTTCTT
M1              TTTCCCTCTTCTATACATCAGGAATCTTTGTCTATTGAGTTCCAGCTCTGGAGGTTCTT
M2              TTTCCCTCTTCTATACATCAGGAATCTTTGTCTATTGAGTTCCAGCTCTGGAGGTTCTT
M3              TTTCCCTCTTCTATACATCAGGAATCTTTGTCTATTGAGTTCCAGCTCTGGAGGTTCTT
M4              TTTCCCTCTTCTATACATCAGGAATCTTTGTCTATTGAGTTCCAGCTCTGGAGGTTCTT
M5              TTTCCCTCTTCTATACATCAGGAATCTTTGTCTATTGAGTTCCAGCTCTGGAGGTTCTT
M6              TTTCCCTCTTCTATACATCAGGAATCTTTGTCTATTGAGTTCCAGCTCTGGAGGTTCTT
M7              TTTCCCTCTTCTATACATCAGGAATCTTTGTCTATTGAGTTCCAGCTCTGGAGGTTCTT
M8              TTTCCCTCTTCTATACATCAGGAATCTTTGTCTATTGAGTTCCAGCTCTGGAGGTTCTT
M9              TTTCCCTCTTCTATACATCAGGAATCTTTGTCTATTGAGTTCCAGCTCTGGAGGTTCTT
*****
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FIGURE 9C

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OR5AN1 PCR      CAAGCTTTGACAGATTGCATCTGTTTTCTACACTGTGGTCATTCCCATGTTAAATCCCT
M1              CAAGCTTTGACAGATTGCATCTGTTTTCTACACTGTGGTCATTCCCATGTTAAATCCCT
M2              CAAGCTTTGACAGATTGCATCTGTTTTCTACACTGTGGTCATTCCCATGTTAAATCCCT
M3              CAAGCTTTGACAGATTGCATCTGTTTTCTACACTGTGGTCATTCCCATGTTAAATCCCT
M4              CAAGCTTTGACAGATTGCATCTGTTTTCTACACTGTGGTCATTCCCATGTTAAATCCCT
M5              CAAGCTTTGACAGATTGCATCTGTTTTCTACACTGTGGTCATTCCCATGTTAAATCCCT
M6              CAAGCTTTGACAGATTGCATCTGTTTTCTACACTGTGGTCATTCCCATGTTAAATCCCT
M7              CAAGCTTTGACAGATTGCATCTGTTTTCTACACTGTGGTCATTCCCATGTTAAATCCCT
M8              CAAGCTTTGACAGATTGCATCTGTTTTCTACACTGTGGTCATTCCCATGTTAAATCCCT
M9              CAAGCTTTGACAGATTGCATCTGTTTTCTACACTGTGGTCATTCCCATGTTAAATCCCT
*****

OR5AN1 PCR      TGATTACAGTTTGAGGAACAAAGAAATTAAGATGCCTTAAAGAGGTTGCAAAAGAGAA
M1              TGATTACAGTTTGAGGAACAAAGAAATTAAGATGCCTTAAAGAGGTTGCAAAAGAGAA
M2              TGATTACAGTTTGAGGAACAAAGAAATTAAGATGCCTTAAAGAGGTTGCAAAAGAGAA
M3              TGATTACAGTTTGAGGAACAAAGAAATTAAGATGCCTTAAAGAGGTTGCAAAAGAGAA
M4              TGATTACAGTTTGAGGAACAAAGAAATTAAGATGCCTTAAAGAGGTTGCAAAAGAGAA
M5              TGATTACAGTTTGAGGAACAAAGAAATTAAGATGCCTTAAAGAGGTTGCAAAAGAGAA
M6              TGATTACAGTTTGAGGAACAAAGAAATTAAGATGCCTTAAAGAGGTTGCAAAAGAGAA
M7              TGATTACAGTTTGAGGAACAAAGAAATTAAGATGCCTTAAAGAGGTTGCAAAAGAGAA
M8              TGATTACAGTTTGAGGAACAAAGAAATTAAGATGCCTTAAAGAGGTTGCAAAAGAGAA
M9              TGATTACAGTTTGAGGAACAAAGAAATTAAGATGCCTTAAAGAGGTTGCAAAASAG-A
*****  * *

OR5AN1 PCR      AGTGCTGCTGAGCGGCCGCTCGAGTCTAGAGGGCCCGTTTAAACCGCTGATCAGCCTCG
M1              AGTGCTGCTGAGCGGCCGCTCGAGTCTAGAGGGCCCGTTTAAA-CCGCTGATCAG-CTCG
M2              AGTGCTGCTGAGCGGCCGCTCGAGTCTAGAGGGCCCGTTTAAA-CCGCTGATCAGC----
M3              AGTGCTGCTGAGCGGCCGCTCGAGTCTAGAGGG-CCGTTTAAA-CCGCTGATCAG-CTCG
M4              AGTGCTGCTGAGCGGCCGCTCGAGTCTAGAGGGCCCGTTT-AAACCGCTGATCAG-CTCG
M5              AGTGCTGCTGAGCGGCCGCTCGAGTCTAGAGGGYTCGTTTAAA-CCGCTGATCAGC----
M6              AGTGCTGCTGAGCGGCCGCTCGAGTCTAGAGGGCCCGTTTAAA-CCGCTGATCAG-CTCG
M7              AGTGCTGCTGAGCGGCCGCTCGAGTCTAGAGGGCCCGTTTAAA-CCGCTGATCA-----
M8              AGTGCTGCTGAGCGGCCGCTCGAGTCTAGAGGGCCCGTTT-AAACCGCTGATCAG-CTCG
M9              ARTGCTGCTGAGCGGCCGCTCGAGTCTAGAGGGCCCGTTT-AAACCGCTGATCAGC----
*  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *

OR5AN1 PCR      ACTGTCCTTCTAGTTGCCAGCCATC--
M1              A-----TG-----
M2              -----TCAN
M3              AC-----NN-----
M4              -----
M5              ----TCACTGCT-----
M6              A-----TGC-----
M7              -----
M8              AT-----
M9              -----TCAC
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FIGURE 9D

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OR10G7 PCR      ACAAGGACGACGACGATAAGATCGAATTGATGAACGGGACCGAGGGCCCAAACCTTCTACG
E1              -----GGCNAAAMTTCTACG
E2              -----ACTTCTACG
E3              -----GGG-CCAAACTTCTACG
E4              -----NNN-----CTTCTACG
E5              -----GGCCC-AACTTCTACG
E6              -----GANGGCCCAAACCTTCTACG
E7              -----GAGGGCCCAAACCTTCTACG
E8              -----NNN-----CTTCTACG
E9              -----NNN-----AACTTCTACG
                  *****

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OR10G7 PCR      TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTTCATGTCCAACGCCTCCCTACTGACAG
E1              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTTCATGTCCAACGCCTCCCTACTGACAG
E2              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTTCATGWCCANCGC-----
E3              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTTCATGTCCAACGCCTCCCTACTGACAG
E4              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTTCATGTCCRACGCCTCCCTACTGACAG
E5              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTTCATGTCCAACGCCTCCCTACTGACAG
E6              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTTCATGTCCAACGCCTCCCTACTGACAG
E7              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTTCATGTCCAACGCCTCCCTACTGACAG
E8              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTTCATGTCCAACGCCTCCCTACTGACAG
E9              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTTCATGTCCAACGCCTCCCTACTGACAG
                  *****

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OR10G7 PCR      CGTTCATCCTCACGGGCCTTCCCCATGCCCCAGGGCTGGACGCCCCCTCTTTGGAATCT
E1              CGTTCATCCTCACGGGCCTTCCCCATGCCCCAGGGCTGGACSCCCCCCTCTTTGGAATCT
E2              -----
E3              CGTTCATCCTCACGGGCCTTCCCCATGCCCCAGGGCTGGACSCCCCCCTCTTTGGAATCT
E4              CGTTCATCCTCACGGGCCTTCCCCATGCCCCAGGGCTGGACGCCCCCTCTTTGGAATCT
E5              CGTTCATCCTCACGGGCCTTCCCCATGCCCCAGGGCTGGACGCCCCCTCTTTGGAATCT
E6              CGTTCATCCTCACGGGCCTTCCCCATGCCCCAGGGCTGGACSCCCCCCTCTTTGGAATCT
E7              CGTTCATCCTCACGGGCCTTCCCCATGCCCCAGGGCTGGACGCCCCCTCTTTGGAATCT
E8              CGTTCATCCTCACGGGCCTTCCCCATGCCCCAGGGCTGGACSCCCCCCTCTTTGGAATCT
E9              CGTTCATCCTCACGGGCCTTCCCCATGCCCCAGGGCTGGACGCCCCCTCTTTGGAATCT

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OR10G7 PCR      TCCTGGTGGTTTACGTGCTCACTGTGCTGGG-GAACCTCCTCATCCTGCTGGTGATCAGG
E1              TCCTGGTGGTTTACGTGCTCACTGTGCTGGG-GAACCTCCTCATCCKGCTGGTGATCAGG
E2              -----
E3              TCCTGGTGGTTTACGTGCTCACTGTGCTGGG-GAACCTCCTCATCCTGCTGGTGATCAGG
E4              TCCTGGTGGTTTASGTGCTCACTGTGCTGGG-GAACCTCCTCATCCTGCTGGTGATCRGG
E5              TCCTGGTGGTTTACGTGCTCACTGTGCTGGG-GAACCTCCTCATCCTGCTGGTGATCAGG
E6              TCCTGGTGGTTTACGTGCTCACTGTGCTGGGNGAACCTCCTCATCCTGCTGGTGATCAGG
E7              TCCTGGTGGTTTACGTGCTCACTGTGCTGGG-GAACCTCCTCATCCTGCTGGTGATCAGG
E8              TCCTGGTGGTTTACGTGCTCACTGTGCTGGG-GAACCTCCTCATCCTGCTGGTGATCAGG
E9              TCCTGGTGGTTTACGTGCTCACTGTGCTGGG-GAACCTCCTCATCCTGCTGGTGATCAGG

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OR10G7 PCR      GTGGATTCTCACTCCACACCCCCATGTACTACTTCCTCACCACCTGTCCTTCATTGAC
E1              GTGGATTCTCACTCCACACCCCCATGTACTACTTCCTCACCACCTGTCCTTCATTGAC
E2              -----
E3              GTGGATTCTCACTCCACACCCCCATGTACTACTTCCTCACCACCTGTCCTTCATTGAC
E4              GTGGATTCTCACTCCACACCCCCATGTACTACTTCCTCACCACCTGTCCTTCATTGAC
E5              GTGGATTCTCACTCCACACCCCCATGTACTACTTCCTCACCACCTGTCCTTCATTGAC
E6              GTGGATTCTCACTCCACACCCCCATGTACTACTTCCTCACCACCTGTCCTTCATTGAC
E7              GTGGATTCTCACTCCACACCCCCATGTACTACTTCCTCACCACCTGTCCTTCATTGAC
E8              GTGGATTCTCACTCCACACCCCCATGTACTACTTCCTCACCACCTGTCCTTCATTGAC
E9              GTGGATTCTCACTCCACACCCCCATGTACTACTTCCTCACCACCTGTCCTTCATTGAC

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FIGURE 10A

OR10G7 PCR	ATGTGGTTCTCCACTGTCACGGTGCCCCAAATGCTGATGACCTTGGTGTCCTCCCAAGCGGC
E1	WTGTGGTTCTCCACTGTCACGGTGCCCCAAATGCTGATGACCTTGGTGTCCTCCCAARCGGC
E2	-----
E3	ATGTGGTTCTCCACTGTCACGGTGCCCCAAATGCTGATGACCTTGGTGTCCTCCCAAGCGGC
E4	ATGTGGTTCTCCACTGTCACGGTGCCCCAAATGCTGATGACCTTGGTGTCCTCCCAAGCGGC
E5	ATGTGGTTCTCCACTGTCACGGTGCCCCAAATGCTGATGACCTTGGTGTCCTCCCAAGCGGC
E6	ATGTGGTTCTCCACTGTCACGGTGCCCCAAATGCTGATGACCTTGGTGTCCTCCCAAGCGGC
E7	ATGTGGTTCTCCACTGTCACGGTGCCCCAAATGCTGATGACCTTGGTGTCCTCCCAAGCGGC
E8	ATGTGGTTCTCCACTGTCACGGTGCCCCAAATGCTGATGACCTTGGTGTCCTCCCAAGCGGC
E9	ATGTGGTTCTCCACTGTCACGGTGCCCCAAATGCTGATGACCTTGGTGTCCTCCCAAGCGGC
OR10G7 PCR	AGGACTATCTCCTTCCACAGCTGCGTGGCTCAGCTCTATTTTTTCCACTTCCTGGGGAGC
E1	AGGACTATCTCCTTCCACAGCTGCGTGGCTCAGCTCTATTTTTTCCACTTCCTGGGGAGC
E2	-----
E3	AGGACTATCTCCTTCCACAGCTGCGTGGCTCAGCTCTATTTTTTCCACTTCCTGGGGAGC
E4	ARGACTATCTCCTTCCACAGCTGCGTGGCTCAKCTCTATTTTTTCCACTTCCTGGGGAGC
E5	AGGACTATCTCCTTCCACAGCTGCGTGGCTCAGCTCTATTTTTTCCACTTCCTGGGGAGC
E6	AGGACTATCTCCTTCCACAGCTGCGTGGCTCAGCTCTATTTTTTCCACTTCCTGGGGAGC
E7	AGGACTATCTCCTTCCACAGCTGCGTGGCTCAGCTCTATTTTTTCCACTTCCTGGGGAGC
E8	AGGACTATCTCCTTCCACAGCTGCGTGGCTCAGCTCTATTTTTTCCACTTCCTGGGGAGC
E9	AGGACTATCTCCTTCCACAGCTGCGTGGCTCAGCTCTATTTTTTCCACTTCCTGGGGAGC
OR10G7 PCR	ACCGAGTGTTTCCTCTACACAGTCATGTCTATGATCGCTACCTGGCCATCAGTTACCCG
E1	ACCGAGTGTTTCCTCTACACAGTCATGTCTATGATCGCTACCTGGCCATCAKTTACCCG
E2	-----
E3	ACCGAGTGTTTCCTCTACACAGTCATGTCTATGATCGCTACCTGGCCATCAGTTACCCG
E4	ACCGAGTGTTTCCTCTACACAGTCATGTCTATGATCGCTACCTGGCCATCAGTTACCCG
E5	ACCGAGTGTTTCCTCTACACAGTCATGTCTATGATCGCTACCTGGCCATCAGTTACCCG
E6	ACCGAGTGTTTCCTCTACACAGTCATGTCTATGATCGCTACCTGGCCATCAGTTACCCG
E7	ACCGAGTGTTTCCTCTACACAGTCATGTCTATGATCGCTACCTGGCCATCAGTTACCCG
E8	ACCGAGTGTTTCCTCTACACAGTCATGTCTATGATCGCTACCTGGCCATCAGTTACCCG
E9	ACCGAGTGTTTCCTCTACACAGTCATGTCTATGATCGCTACCTGGCCATCAGTTACCCG
OR10G7 PCR	CTCAGGTACACCAACATGATGACTGGGCGCTCGTGTGCCCTCCTGGCCACCGGCACCTTGG
E1	CTCAGGTACACCAACATGATGACTGGGCGCTCGTGTGCCCTCCTGGCCACCGGCACCTTGG
E2	-----
E3	CTCAGGTACACCAACATGATGACTGGGCGCTCGTGTGCCCTCCTGGCCACCGGCACCTTGG
E4	CTCAGGTACACCAACATGATGACTGGGCGCTCGTGTGCCCTCCTGGCCACCGGCACCTTGG
E5	CTCAGGTACACCAACATGATGACTGGGCGCTCGTGTGCCCTCCTGGCCACCGGCACCTTGG
E6	CTCAGGTACACCAACATGATGACTGGGCGCTCGTGTGCCCTCCTGGCCACCGGCACCTTGG
E7	CTCAGGTACACCAACATGATGACTGGGCGCTCGTGTGCCCTCCTGGCCACCGGCACCTTGG
E8	CTCAGGTACACCAACATGATGACTGGGCGCTCGTGTGCCCTCCTGGCCACCGGCACCTTGG
E9	CTCAGGTACACCAACATGATGACTGGGCGCTCGTGTGCCCTCCTGGCCACCGGCACCTTGG
OR10G7 PCR	CTCAGTGGCTCTCTGCACTCTGCTGTCCAGACCATATTGACTTTCATTGGCCCTACTGT
E1	CTCAGTGGCTCTCTGCACTCTGCTGTCCAGACCATATTGACTTTCATTGGCCCTACTGT
E2	-----
E3	CTCAGTGGCTCTCTGCACTCTGCTGTCCAGACCATATTGACTTTCATTGGCCCTACTGT
E4	CTCAGTGGCTCTCTGCACTCTGCTGTCCAGACCATATTGACTTTCATTGGCCCTACTGT
E5	CTCAGTGGCTCTCTGCACTCTGCTGTCCAGACCATATTGACTTTCATTGGCCCTACTGT
E6	CTCAGTGGCTCTCTGCACTCTGCTGTCCAGACCATATTGACTTTCATTGGCCCTACTGT
E7	CTCAGTGGCTCTCTGCACTCTGCTGTCCAGACCATATTGACTTTCATTGGCCCTACTGT
E8	CTCAGTGGCTCTCTGCACTCTGCTGTCCAGACCATATTGACTTTCATTGGCCCTACTGT
E9	CTCAGTGGCTCTCTGCACTCTGCTGTCCAGACCATATTGACTTTCATTGGCCCTACTGT

FIGURE 10B

OR10G7 PCR	GGACCCAACCAGATCCAGCACTACTTCTGTGACGCACCGCCCATCCTGAAACTGGCCTGT
E1	GGACCCAACCAGATCCAGCACTACTTCTGTGACSCACCGCCCATCCTGAAACTGGCCTGT
E2	-----
E3	GGACCCAACCAGATCCAGCACTACTTCTGTGACGCACCGCCCATCCTGAAACTGGCCTGT
E4	GGACCCAACCASATCCRGCACTACTTCTGTGACGCACCRCCCATCCTGAAACTGGCCTGT
E5	GGACCCAACCAGATCCAGCACTACTTCTGTGACGCACCGCCCATCCTGAAACTGGCCTGT
E6	GGACCCAACCAGATCCAGCACTACTTCTGTGACGCACCGCCCATCCTGAAACTGGCCTGT
E7	GGACCCAACCAGATCCAGCACTACTTCTGTGACGCACCGCCCATCCTGAAACTGGCCTGT
E8	GGACCCAACCAGATCCAGCACTACTTCTGTGACGCACCGCCCATCCTGAAACTGGCCTGT
E9	GGACCCAACCAGATCCAGCACTACTTCTGTGACGCACCGCCCATCCTGAAACTGGCCTGT
OR10G7 PCR	GCAGACACCTCAGCCAACGAGATGGTCATCTTTGTGAATATTGGGCTAGTGGCCTCGGGC
E1	GCAKACACCTCAGCCAACGAGATGGTCATCTTTGTGAATATTGGGCTASTGGCCTCGGGC
E2	-----
E3	GCAGACACCTCAGCCAACGAGATGGTCATCTTTGTGAATATTGGGCTAGTGGCCTCGGGC
E4	GCASACACCTCAGCCAACGAGATGGTCATCTTTGTGAATATTGGGCTASTGGCCTCGGGC
E5	GCAGACACCTCAGCCAACGAGATGGTCATCTTTGTGAATATTGGGCTAGTGGCCTCGGGC
E6	GCASACACCTCAGCCAACGAGATGGTCATCTTTGTGAATATTGGGCTAGTGGCCTCGGGC
E7	GCAGACACCTCAGCCAACGAGATGGTCATCTTTGTGAATATTGGGCTAGTGGCCTCGGGC
E8	GCASACACCTCAGCCAACGAGATGGTCATCTTTGTGAATATTGGGCTAGTGGCCTCGGGC
E9	GCAGACACCTCAGCCAACGAGATGGTCATCTTTGTGAATATTGGGCTAGTGGCCTCGGGC
OR10G7 PCR	TGCTTTGTCTGATAGTGCTGTCCTATGTGTCCATCGTCTGTTCCATCCTGCGGATCCGC
E1	TGCTTTTRCTGATAGTGCTGYCCTATGTGTCCATCGTCTGTTCCATCCTGCGGATCCGC
E2	-----
E3	TGCTTTGTCTGATAGTGCTGTCCTATGTGTCCATCGTCTGTTCCATCCTGCGGATCCGC
E4	TGCTTTGTCTGATAGTGCTGTCCTATGTGTCCATCGTCTGTTCCATCCTGCGGATCCGC
E5	TGCTTTGTCTGATAGTGCTGTCCTATGTGTCCATCGTCTGTTCCATCCTGCGGATCCGC
E6	TGCTTTGTCTGATAGTGCTGTCCTATGTGTCCATCGTCTGTTCCATCCTGCGGATCCGC
E7	TGCTTTGTCTGATAGTGCTGTCCTATGTGTCCATCGTCTGTTCCATCCTGCGGATCCGC
E8	TGCTTTGTCTGATAGTGCTGTCCTATGTGTCCATCGTCTGTTCCATCCTGCGGATCCGC
E9	TGCTTTGTCTGATAGTGCTGTCCTATGTGTCCATCGTCTGTTCCATCCTGCGGATCCGC
OR10G7 PCR	ACCTCAGAGGGGAGGCACAGAGCCTTTCAGACCTGTGCCTCCCACGTATCGTGGTCCTT
E1	ACCTCAGAGGGGAGGCACAGAGCCTTTCAGACCTGTGCCTCCCACGTATCGTGGTCCTT
E2	-----
E3	ACCTCAGAGGGGAGGCACAGAGCCTTTCAGACCTGTGCCTCCCACGTATCGTGGTCCTT
E4	ACCTCAGAGGGGAGGCACAGAGCCTTTCAGACCTGTGCCTCCCACGTATCGTGGTCCTT
E5	ACCTCAGAGGGGAGGCACAGAGCCTTTCAGACCTGTGCCTCCCACGTATCGTGGTCCTT
E6	ACCTCAGAGGGGAGGCACAGAGCCTTTCAGACCTGTGCCTCCCACGTATCGTGGTCCTT
E7	ACCTCAGAGGGGAGGCACAGAGCCTTTCAGACCTGTGCCTCCCACGTATCGTGGTCCTT
E8	ACCTCAGAGGGGAGGCACAGAGCCTTTCAGACCTGTGCCTCCCACGTATCGTGGTCCTT
E9	ACCTCAGAGGGGAGGCACAGAGCCTTTCAGACCTGTGCCTCCCACGTATCGTGGTCCTT
OR10G7 PCR	TGCTTCTTTGGCCCTGGTCTTTTCATTTACCTGAGGCCAGGCTCCAGGGACGCCTTGCAT
E1	TGCTTCTTTGGCCCTGGTCTTTTCATTTACCTGAGGCCAGGCTCCAGGGACGCCTTGCAT
E2	-----
E3	TGCTTCTTTGGCCCTGGTCTTTTCATTTACCTGAGGCCAGGCTCCAGGGACGCCTTGCAT
E4	TGCTTCTTTGGCCCTGGTCTTTTCATTTACCTGAGGCCAGGCTCCAGGGACGCCTTGCAT
E5	TGCTTCTTTGGCCCTGGTCTTTTCATTTACCTGAGGCCAGGCTCCAGGGACGCCTTGCAT
E6	TGCTTCTTTGGCCCTGGTCTTTTCATTTACCTGAGGCCAGGCTCCAGGGACGCCTTGCAT
E7	TGCTTCTTTGGCCCTGGTCTTTTCATTTACCTGAGGCCAGGCTCCAGGGACGCCTTGCAT
E8	TGCTTCTTTGGCCCTGGTCTTTTCATTTACCTGAGGCCAGGCTCCAGGGACGCCTTGCAT
E9	TGCTTCTTTGGCCCTGGTCTTTTCATTTACCTGAGGCCAGGCTCCAGGGACGCCTTGCAT

FIGURE 10C

```
OR10G7 PCR      GGGGTTGTGGCCGTTTCTACACCACGCTGACTCCTCTTTTCAACCCTGTTGTGTACACC
E1              GGGGTTGTGGCCGTTTCTACACCACGCTGACTCCTCTTTTCAACCCTGWTGTGTACACC
E2              -----
E3              GGGGTTGTGGCCGTTTCTACACCACGCTGACTCCTCTTTTCAACCCTGTTGTGTACACC
E4              GGCGTTGTGGCCGTTTCTACACCACGCTGACTCCTCTTTTCAACCCTGWTGTGTACACC
E5              GGGGTTGTGGCCGTTTCTACACCACGCTGACTCCTCTTTTCAACCCTGTTGTGTACACC
E6              GGGGTTGTGGCCGTTTCTACACCACGCTGACTCCTCTTTTCAACCCTGTTGTGTACACC
E7              GGGGTTGTGGCCGTTTCTACACCACGCTGACTCCTCTTTTCAACCCTGTTGTGTACACC
E8              GGGGTTGTGGCCGTTTCTACACCACGCTGACTCCTCTTTTCAACCCTGTTGTGTACACC
E9              GGGGTTGTGGCCGTTTCTACACCACGCTGACTCCTCTTTTCAACCCTGTTGTGTACACC

OR10G7 PCR      CTGAGAAACAAGGAGGTAAAGAAAGCTCTGTTGAAGCTGAAAAATGGGTCAGTATTTGCT
E1              CTGASAAACAAGGAGGTAAAGAAAGCTCTGTTGAAGCTGAAAAATGSGTCAGTATTTGCT
E2              -----
E3              CTGAGAAACAAGGAGGTAAAGAAAGCTCTGTTGAAGCTGAAAAATGGGTCAGTATTTGCT
E4              CTGAGAAACAAGGAGGTAAAGAAAGCTCTGTTGAARCTGAAAAATGGGTCAGTATTTGCT
E5              CTGAGAAACAAGGAGGTAAAGAAAGCTCTGTTGAAGCTGAAAAATGGGTCAGTATTTGCT
E6              CTGAGAAACAAGGAGGTAAAGAAAGCTCTGTTGAAGCTGAAAAATGGGTCAGTATTTGCT
E7              CTGAGAAACAAGGAGGTAAAGAAAGCTCTGTTGAAGCTGAAAAATGGGTCAGTATTTGCT
E8              CTGAGAAACAAGGAGGTAAAGAAAGCTCTGTTGAAGCTGAAAAATGGGTCAGTATTTGCT
E9              CTGAGAAACAAGGAGGTAAAGAAAGCTCTGTTGAAGCTGAAAAATGGGTCAGTATTTGCT

OR10G7 PCR      CAGGGTGAATAGGCGGCCGCTCGAGTCTAGAGGGCCCGTTTAAACCCGCTGATCAGCCTC
E1              CAGGATGAATAGGCGGYCGCTCGAGTCTAGAGGGYCCGTTTAAA-CCGCTGATCAGCCTC
E2              -----
E3              CAGGGTGAATAGGCGGCCGCTCGAGTCTAGAGGG-NCGTTT-AAACCCGCTGATCAG-CTC
E4              CAGGGTGAATAGGCGGCCGCTCGAGTCTAGAGGGCCCGTTTAAACCCGCTGATCA-CCTC
E5              CAGGGTGAATAGGCGGCCGCTCGAGTCTAGAGGGCCCGTTTAAACCCGCTGATCAGC---
E6              CAGGGTGAATAGGCGGCCGCTCGAGTCTAGAGGG-NCGTTT-AAACCCGCTGATCAGC---
E7              CAGGGTGAATAGGCGGCCGCTCGAGTCTAGAGGGCCCGTTTAAACCCGCTGATCAG-CTC
E8              CAGGGTGAATAGGCGGCCGCTCGAGTCTAGAGGG-NCGTTTAAACCCGCTGATC-----
E9              CAGGGTGAATAGGCGGCCGCTCGAGTCTAGAGGGCCCGTTTAAA-CCGCTGATCAGCT--

OR10G7 PCR      GACTGTGCCTTCTAGTTGCCAGCCATC
E1              GA-----YG-----
E2              -----
E3              GACTG-----CTA-----
E4              -----
E5              ----TCRCT-----
E6              -----
E7              GA---TGCT-----
E8              -----
E9              -----
```

FIGURE 10D

```
OR10G4 PCR      ACAAGGACGACGACGATAAGATCGAATTGATGAACGGGACCGAGGGCCCAAACCTTCTACG
V1              -----GGCC--AACTTCTACG
V2              -----GGNN-CGAGGG-CCAAACTTCTACG
V3              -----GGNNN--ACTTCTACG
V5              -----GNNN--ACTTCTACG
V6              -----NNN-----CTTCTACG
V7              -----CNNAACTTCTACG
V8              -----NNN-----ACTTCTACG
V9              -----GGNCN--ACTTCTACG
                *****
```

```
OR10G4 PCR      TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTTCATGTCCAACGCCAGCCTCGTGACAG
V1              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTTCATGTCCAACGCCAGCCTCGTGACAG
V2              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTTCATGTCCAACGCCAGCCTCGTGACAG
V3              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTTCATGTCCAACGCCAGCCTCGTGACAG
V5              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTTCATGTCCAACGCCAGCCTCGTGACAG
V6              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTTCATGTCCAACGCCAGCCTCGTGACAG
V7              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTTCATGTCCAACGCCAGCCTCGTGACAG
V8              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTTCATGTCCAACGCCAGCCTCGTGACAG
V9              TGCCTTTCTCCAACAAGACGGGCGTGGTGAATTTCATGTCCAACGCCAGCCTCGTGACAG
                *****
```

```
OR10G4 PCR      CATTTCATCCTCACAGGCCTTCCCCATGCCCCAGGGCTGGACGCCCTCCTCTTTGGAATCT
V1              CATTTCATCCTCACAGGCCTTCCCCATGCCCCAGGGCTGGACGCCCTCCTCTTTGGAATCT
V2              CATTTCATCCTCACAGGCCTTCCCCATGCCCCAGGGCTGGACGCCCTCCTCTTTGGAATCT
V3              CATTTCATCCTCACAGGCCTTCCCCATGCCCCAGGGCTGGACGCCCTCCTCTTTGGAATCT
V5              CRTTCATCCTCACRGGCCTTCCCCATGCCCCAGGGCTGGACGCCCTCCTCTTTGGAATCT
V6              CATTTCATCCTCACAGGCCTTCCCCATGCCCCAGGGCTGGACGCCCTCCTCTTTGGAATCT
V7              CATTTCATCCTCACAGGCCTTCCCCATGCCCCAGGGCTGGACGCCCTCCTCTTTGGAATCT
V8              CATTTCATCCTCACAGGCCTTCCCCATGCCCCAGGGCTGGACGCCCTCCTCTTTGGAATCT
V9              CATTTCATCCTCACAGGCCTTCCCCATGCCCCAGGGCTGGACGCCCTCCTCTTTGGAATCT
                * *****
```

```
OR10G4 PCR      TCCTGGTGGTTTACGTGCTCACTGTGCTGGGGAACCTCCTCATCCTGCTGGTGATCAGGG
V1              TCCTGGTGGTTTACGTGCTCACTGTGCTGGGGAACCTCCTCATCCTGCTGGTGATCAGGG
V2              TCCTGGTGGTTTACGTGCTCACTGTGCTGGGGAACCTCCTCATCCTGCTGGTGATCAGGG
V3              TCCTGGTGGTTTACGTGCTCACTGTGCTGGGGAACCTCCTCATCCTGCTGGTGATCAGGG
V5              TCCTGGTGGTTTACGTGCTCACTGTGCTGGGGAACCTCCTCATCCTGCTGGTGATCAGGG
V6              TCCTGGTGGTTTACGTGCTCACTGTGCTGGGGAACCTCCTCATCCTGCTGGTGATCAGGG
V7              TCCTGGTGGTTTACGTGCTCACTGTGCTGGGGAACCTCCTCATCCTGCTGGTGATCAGGG
V8              TCCTGGTGGTTTACGTGCTCACTGTGCTGGGGAACCTCCTCATCCTGCTGGTGATCAGGG
V9              TCCTGGTGGTTTACGTGCTCACTGTGCTGGGGAACCTCCTCATCCTGCTGGTGATCAGGG
                *****
```

```
OR10G4 PCR      TGGATTCTCACCTCCACACCCCATGTACTACTTCTCACCACCTGTCTTCATTGACA
V1              TGGATTCTCACCTCCACACCCCATGTACTACTTCTCACCACCTGTCTTCATTGACA
V2              TGGATTCTCACCTCCACACCCCATGTACTACTTCTCACCACCTGTCTTCATTGACA
V3              TGGATTCTCACCTCCACACCCCATGTACTACTTCTCACCACCTGTCTTCATTGACA
V5              TGGATTCTCACCTCCACACCCCATGTACTACTTCTCACCACCTGTCTTCATTGACA
V6              TGGATTCTCACCTCCACACCCCATGTACTACTTCTCACCACCTGTCTTCATTGACA
V7              TGGATTCTCACCTCCACACCCCATGTACTACTTCTCACCACCTGTCTTCATTGACA
V8              TGGATTCTCACCTCCACACCCCATGTACTACTTCTCACCACCTGTCTTCATTGACA
V9              TGGATTCTCACCTCCACACCCCATGTACTACTTCTCACCACCTGTCTTCATTGACA
                *****
```

FIGURE 11A

OR10G4 PCR
V1
V2
V3
V5
V6
V7
V8
V9

TGTGGTTCTCCACTGTCACGGTGCCCCAAAATGCTGATGACCTTGGTGTCCCCAAGCGGCA
TGTGGTTCTCCACTGTCACGGTGCCCCAAAATGCTGATGACCTTGGTGTCCCCAAGCGGCA
TGTGGTTCTCCACTGTCACGGTGCCCCAAAATGCTGATGACCTTGGTGTCCCCAAGCGGCA
TGTGGTTCTCCACTGTCACGGTGCCCCAAAATGCTGATGACCTTGGTGTCCCCAAGCGGCA
TGTGGTTCTCCACTGTCACGGTGCCCCAAAATGCTGATGACCTTGGTGTCCCCAAGCGGCA
TGTGGTTCTCCACTGTCACGGTGCCCCAAAATGCTGATGACCTTGGTGTCCCCAAGCGGCA
TGTGGTTCTCCACTGTCACGGTGCCCCAAAATGCTGATGACCTTGGTGTCCCCAAGCGGCA
TGTGGTTCTCCACTGTCACGGTGCCCCAAAATGCTGATGACCTTGGTGTCCCCAAGCGGCA

OR10G4 PCR
V1
V2
V3
V5
V6
V7
V8
V9

GGGCTATCTCCTTCCACAGCTGCGTGGCTCAGCTCTATTTTTTCCACTTCCTGGGGAGCA
GGGCTATCTCCTTCCACAGCTGCGTGGCTCAGCTCTATTTTTTCCACTTCCTGGGGAGCA
GGGCTATCTCCTTCCACAGCTGCGTGGCTCAGCTCTATTTTTTCCACTTCCTGGGGAGCA
GGGCTATCTCCTTCCACAGCTGCGTGGCTCAGCTCTATTTTTTCCACTTCCTGGGGAGCA
GGGCTATCTCCTTCCACAGCTGCGTGGCTCAGCTCTATTTTTTCCACTTCCTGGGGAGCA
GGGCTATCTCCTTCCACAGCTGCGTGGCTCAGCTCTATTTTTTCCACTTCCTGGGGAGCA
GGGCTATCTCCTTCCACAGCTGCGTGGCTCAGCTCTATTTTTTCCACTTCCTGGGGAGCA
GGGCTATCTCCTTCCACAGCTGCGTGGCTCAGCTCTATTTTTTCCACTTCCTGGGGAGCA
** *****

OR10G4 PCR
V1
V2
V3
V5
V6
V7
V8
V9

CCGAGTGTTCCTCTACACAGTCATGTCCTATGATCGCTACTTGGCCATCAGTTACCCGC
CCGAGTGTTCCTCTACACAGTCATGTCCTATGATCGCTACTTGGCCATCAGTTACCCGC
CCGAGTGTTCCTCTACACAGTCATGTCCTATGATCGCTACTTGGCCATCAGTTACCCGC
CCGAGTGTTCCTCTACACAGTCATGTCCTATGATCGCTACTTGGCCATCAGTTACCCGC
CCGAGTGTTCCTCTACACAGTCATGTCCTATGATCGCTACTTGGCCATCAGTTACCCGC
CCGAGTGTTCCTCTACACAGTCATGTCCTATGATCGCTACTTGGCCATCAGTTACCCGC
CCGAGTGTTCCTCTACACAGTCATGTCCTATGATCGCTACTTGGCCATCAGTTACCCGC
CCGAGTGTTCCTCTACACAGTCATGTCCTATGATCGCTACTTGGCCATCAGTTACCCGC

OR10G4 PCR
V1
V2
V3
V5
V6
V7
V8
V9

TCAGGTACACCAGCATGATGAGTGGGAGCAGGTGTGCCCTCCTGGCCACCGGCACCTTGGC
TCAGGTACACCAGCATGATGAGTGGGAGCAGGTGTGCCCTCCTGGCCACCGGCACCTTGGC
TCAGGTACACCAGCATGATGAGTGGGAGCAGGTGTGCCCTCCTGGCCACCGGCACCTTGGC
TCAGGTACACCAACATGATGACTGGGMCWSGTGTGCCCTCCTGGCCACCGGCACCTTGGC
TCAGGTACACCAGCATGATGAGTGGGAGCAGGTGTGCCCTCCTGGCCACCGGCACCTTGGC
TCAGGTACACCAGCATGATGAGTGGGAGCAGGTGTGCCCTCCTGGCCACCGGCACCTTGGC
TCAGGTACACCAGCATGATGAGTGGGAGCAGGTGTGCCCTCCTGGCCACCGGCACCTTGGC
TCAGGTACACCAGCATGATGAGTGGGAGCAGGTGTGCCCTCCTGGCCACCGGCACCTTGGC

OR10G4 PCR
V1
V2
V3
V5
V6
V7
V8
V9

TCAGTGGCTCTCTGCACTCTGCTGTCCAGACCATATTGACTTTCCATTGCCCCTACTGTG
TCAGTGGCTCTCTGCACTCTGCTGTCCAGACCATATTGACTTTCCATTGCCCCTACTGTG
TCAGTGGCTCTCTGCACTCTGCTGTCCAGACCATATTGACTTTCCATTGCCCCTACTGTG
TCAGTGGCTCTCTGCACTCTGCTGTCCAGACCATATTGACTTTCCATTGCCCCTACTGTG
TCAGTGGCTCTCTGCACTCTGCTGTCCAGACCATATTGACTTTCCATTGCCCCTACTGTG
TCAGTGGCTCTCTGCACTCTGCTGTCCAGACCATATTGACTTTCCATTGCCCCTACTGTG
TCAGTGGCTCTCTGCACTCTGCTGTCCAGACCATATTGACTTTCCATTGCCCCTACTGTG
TCAGTGGCTCTCTGCACTCTGCTGTCCAGACCATATTGACTTTCCATTGCCCCTACTGTG

FIGURE 11B

OR10G4 PCR
V1
V2
V3
V5
V6
V7
V8
V9

GACCCAACCAGATCCAGCACTACTTCTGTGACGCACCGCCCATCCTGAAACTGGCCTGTG
GACCCAACCAGATCCAGCACTACTTCTGTGACGCACCGCCCATCCTGAAACTGGCCTGTG
GACCCAACCAGATCCAGCACTACTTCTGTGACGCACCGCCCATCCTGAAACTGGCCTGTG
GACCCAACCAGATCCAGCACTACTTCTGTGACGCACCGCCCATCCTGAAACTGGCCTGTG
GACCCAACCAGATCCAGCACTACTTCTGTGACGCACCGCCCATCCTGAAACTGGCCTGTG
GACCCAACCAGATCCAGCACTACTTCTGTGACGCACCGCCCATCCTGAAACTGGCCTGTG
GACCCAACCAGATCCAGCACTACTTCTGTGACGCACCGCCCATCCTGAAACTGGCCTGTG
GACCCAACCAGATCCAGCACTACTTCTGTGACGCACCGCCCATCCTGAAACTGGCCTGTG
GACCCAACCAGATCCAGCACTACTTCTGTGACGCACCGCCCATCCTGAAACTGGCCTGTG

OR10G4 PCR
V1
V2
V3
V5
V6
V7
V8
V9

CAGACACCTCAGCCAACGTGATGGTCATCTTTGTGGACATTGGGATAGTGGCCTCAGGCT
CAGACACCTCAGCCAACGTGATGGTCATCTTTGTGGACATTGGGATAGTGGCCTCAGGCT
CAGACACCTCAGCCAACGTGATGGTCATCTTTGTGGACATTGGGATAGTGGCCTCAGGCT
CAGACACCTCAGCCAACGTGATGGTCATCTTTGTGRACATTGGGATAGTGGCCTCAGGCT
CAGACACCTCAGCCAACGTGATGGTCATCTTTGTGAAYATTGGGATAGTGGCCTCRGGCT
CAGACACCTCAGCCAACGTGATGGTCATCTTTGTGGACATTGGGATAGTGGCCTCAGGCT
CAGACACCTCAGCCAACGTGATGGTCATCTTTGTGGACATTGGGATAGTGGCCTCAGGCT
CAGACACCTCAGCCAACGTGATGGTCATCTTTGTGGACATTGGGATAGTGGCCTCAGGCT
CAGACACCTCAGCCAACGTGATGGTCATCTTTGTGGACATTGGGATAGTGGCCTCAGGCT

OR10G4 PCR
V1
V2
V3
V5
V6
V7
V8
V9

GCTTTGTCTGATAGTGCTGTCTTATGTGTCCATCGTCTGTTCCATCCTGCGCATCCGCA
GCTTTGTCTGATAGTGCTGTCTTATGTGTCCATCGTCTGTTCCATCCTGCGCATCCGCA
GCTTTGTCTGATAGTGCTGTCTTATGTGTCCATCGTCTGTTCCATCCTGCGCATCCGCA
GCTTTGTCTGATAGTGCTGTCTTATGTGTCCATCGTCTGTTCCATCCTGCGCATCCGCA
GCTTTGTCTGATAGTGCTGTCTTATGTGTCCATCGTCTGTTCCATCCTGCGCATCCGCA
GCTTTGTCTGATAGTGCTGTCTTATGTGTCCATCGTCTGTTCCATCCTGCGCATCCGCA
GCTTTGTCTGATAGTGCTGTCTTATGTGTCCATCGTCTGTTCCATCCTGCGCATCCGCA
GCTTTGTCTGATAGTGCTGTCTTATGTGTCCATCGTCTGTTCCATCCTGCGCATCCGCA
GCTTTGTCTGATAGTGCTGTCTTATGTGTCCATCGTCTGTTCCATCCTGCGCATCCGCA

OR10G4 PCR
V1
V2
V3
V5
V6
V7
V8
V9

CCTCAGATGGGAGGCGCAGAGCCTTTCAGACCTGTGCCCTCCCACTGTATTGTGGTCCTTT
CCTCAGATGGGAGGCGCAGAGCCTTTCAGACCTGTGCCCTCCCACTGTATTGTGGTCCTTT
CCTCAGATGGGAGGCGCAGAGCCTTTCAGACCTGTGCCCTCCCACTGTATTGTGGTCCTTT
CCTCAGATGGGAGGCGCAGAGCCTTTCAGACCTGTGCCCTCCCACTGTATTGTGGTCCTTT
CCTCAGATGGGAGGCGCAGAGCCTTTCAGACCTGTGCCCTCCCACTGTATCGTGGTCCTTT
CCTCAGATGGGAGGCGCAGAGCCTTTCAGACCTGTGCCCTCCCACTGTATTGTGGTCCTTT
CCTCAGATGGGAGGCGCAGAGCCTTTCAGACCTGTGCCCTCCCACTGTATTGTGGTCCTTT
CCTCAGATGGGAGGCGCAGAGCCTTTCAGACCTGTGCCCTCCCACTGTATTGTGGTCCTTT
CCTCAGATGGGAGGCGCAGAGCCTTTCAGACCTGTGCCCTCCCACTGTATTGTGGTCCTTT

OR10G4 PCR
V1
V2
V3
V5
V6
V7
V8
V9

GCTTCTTTGTTCCCTGTGTTGTCATTTATCTGAGGCCAGGCTCCATGGATGCCATGGATG
GCTTCTTTGTTCCCTGTGTTGTCATTTATCTGAGGCCAGGCTCCATGGATGCCATGGATG
GCTTCTTTGTTCCCTGTGTTGTCATTTATCTGAGGCCAGGCTCCATGGATGCCATGGATG
GCTTCTTTGTTCCCTGTGTTGTCATTTATCTGAGGCCAGGCTCCATGGATGCCATGGATG
GCTTCTTTGTTCCCTGTGTTGTCATTTATCTGAGGCCAGGCTCCATGGATGCCATGGATG
GCTTCTTTGTTCCCTGTGTTGTCATTTATCTGAGGCCAGGCTCCATGGATGCCATGGATG
GCTTCTTTGTTCCCTGTGTTGTCATTTATCTGAGGCCAGGCTCCATGGATGCCATGGATG
GCTTCTTTGTTCCCTGTGTTGTCATTTATCTGAGGCCAGGCTCCATGGATGCCATGGATG
GCTTCTTTGTTCCCTGTGTTGTCATTTATCTGAGGCCAGGCTCCATGGATGCCATGGATG

FIGURE 11C

```
OR10G4 PCR      GAGTTGTGGCCATTTTCTACACTGTGCTGACGCCCTTCTCAACCTGTTGTGTACACCC
V1              GAGTTGTGGCCATTTTCTACACTGTGCTGACGCCCTTCTCAACCTGTTGTGTACACCC
V2              GAGTTGTGGCCATTTTCTACACTGTGCTGACGCCCTTCTCAACCTGTTGTGTACACCC
V3              GAGTTGTGGCCATTTTCTACACTGTGCTGACGCCCTTCTCAACCTGTTGTGTACACCC
V5              GAGTTGTGGCCGTTTTCTACACYGYGCTGACTCCTTCTCAACCTGTTGTGTACACCC
V6              GAGTTGTGGCCATTTTCTACACTGTGCTGACGCCCTTCTCAACCTGTTGTGTACACCC
V7              GAGTTGTGGCCATTTTCTACACTGTGCTGACGCCCTTCTCAACCTGTTGTGTACACCC
V8              GAGTTGTGGCCATTTTCTACACTGTGCTGACGCCCTTCTCAACCTGTTGTGTACACCC
V9              GAGTTGTGGCCATTTTCTACACTGTGCTGACGCCCTTCTCAACCTGTTGTGTACACCC
                *****

OR10G4 PCR      TGAGAAACAAGGAGGTGAAGAAAGCTGTGTTGAACTTAGAGACAAAGTAGCACATCCTC
V1              TGAGAAACAAGGAGGTGAAGAAAGCTGTGTTGAACTTAGAGACAAAGTAGCACATCCTC
V2              TGAGAAACAAGGAGGTGAAGAAAGCTGTGTTGAACTTAGAGACAAAGTAGCACATCCTC
V3              TGAGAAACAAGGAGGTGAAGAAAGCTGTGTTGAACTTAGAGACAAAGTAGCACATCCTC
V5              TGAGAAACAAGGAGGTGAAGAAAGCTSTGTTGAACTGAAAGAYGRRTYAGYAYATGCTC
V6              TGAGAAACAAGGAGGTGAAGAAAGCTGTGTTGAACTTAGAGACAAAGTAGCACATCCTC
V7              TGAGAAACAAGGAGGTGAAGAAAGCTGTGTTGAACTTAGAGACAAAGTAGCACATCCTC
V8              TGAGAAACAAGGAGGTGAAGAAAGCTGTGTTGAACTTAGAGACAAAGTAGCACATCCTC
V9              TGAGAAACAAGGAGGTGAAGAAAGCTGTGTTGAACTTAGAGACAAAGTAGCACATCCTC
                *****

OR10G4 PCR      AGAGGAAATAAGCGGCCGCTCGAGTCTAGAGGGCCCGTTAAACCCGCTGATCAGCCTCG
V1              AGAGGAAATAAGCGGCCGCTCGAGTCTAGAGGGCCCGTTAAACCCGCTGATCAGCCTCG
V2              AGAGGAAATAAGCGGCCGCTCGAGTCTAGAGGGCCCGTTAAACCCGCTGATCAGCCTCG
V3              AGAGGAAATAAGCGGCCGCTCGAGTCTAGAGGGCCCGTTAAACCCGCTGATCAGCCTCG
V5              AGRGTGAATAAGCGGCCGCTCGAGTCTAGAGGGCCCGTTAAACCCGCTGATCA-CCTCG
V6              AGAGGAAATAAGCGGCCGCTCGAGTCTAGAGGGCCCGTTAAACCCGCTGATCA-CCTCG
V7              AGAGGAAATAAGCGGCCGCTCGAGTCTAGAGGGCCCGTTAAACCCGCTGATCA-CCTCG
V8              AGAGGAAATAAGCGGCCGCTCGAGTCTAGAGGGCCCGTTAAACCCGCTGATCAGCCTCG
V9              AGAGGAAATAAGCGGCCGCTCGAGTCTAGAGGGCCCGTTAAACCCGCTGATCAGCCTCG
                ** *

OR10G4 PCR      ACTGTGCCTTCTAGTTGCCAGCCATC
V1              ACT-----
V2              ACT-----
V3              AC-----
V5              A---TGGCT-----CAGT---
V6              A-----TG-----
V7              A-----TG-----
V8              A---TGGCT--CATTTGT-----
V9              ACTG-----GCTC
                *
```

FIGURE 11D