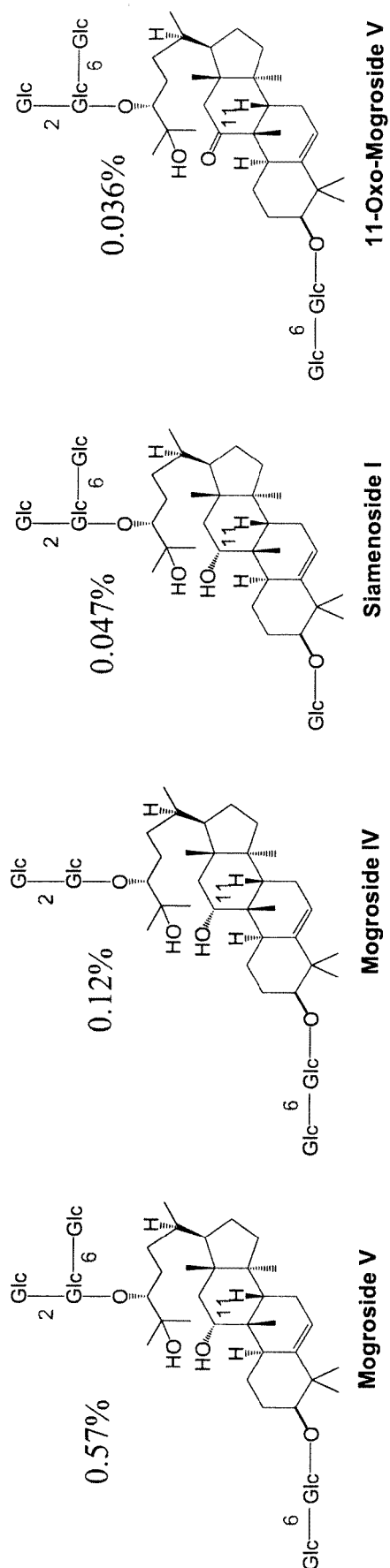
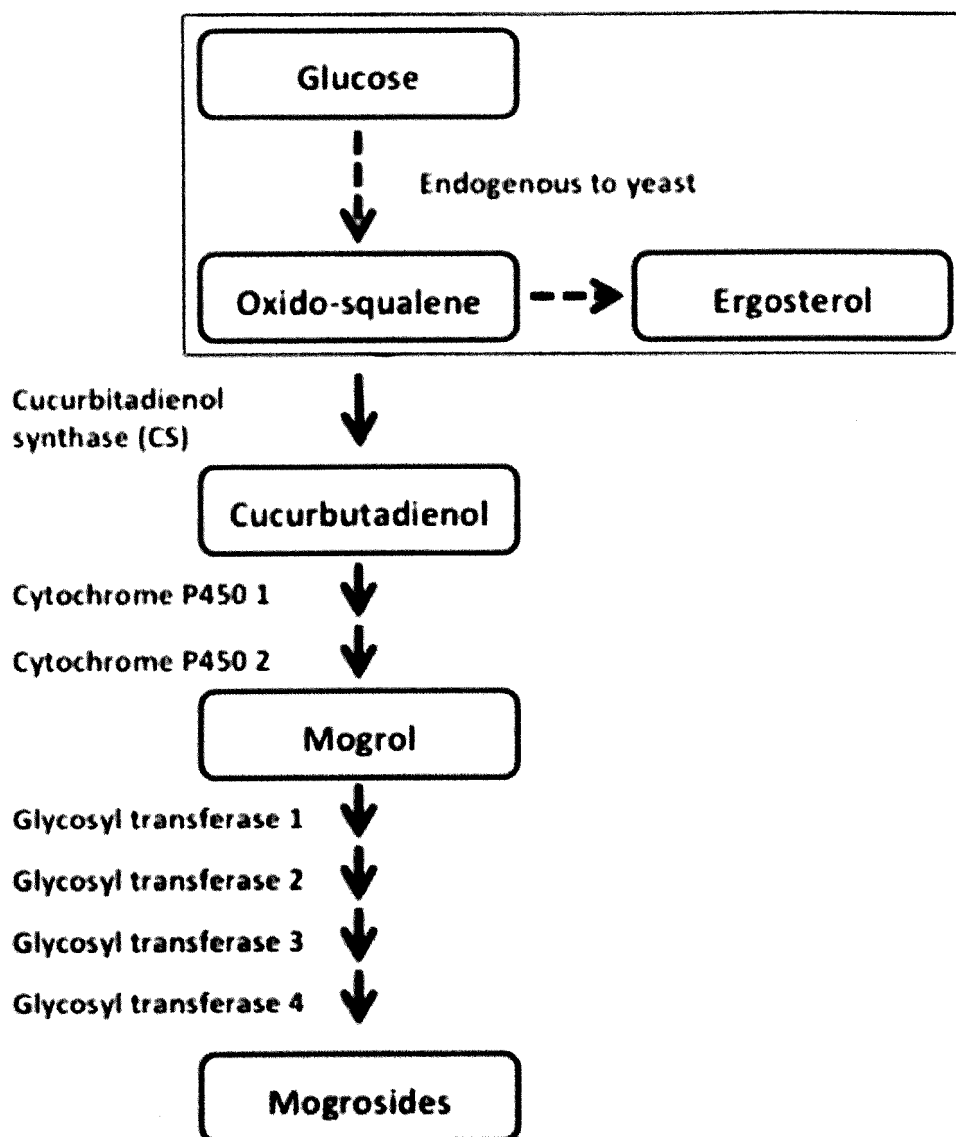




**Fig. 2**

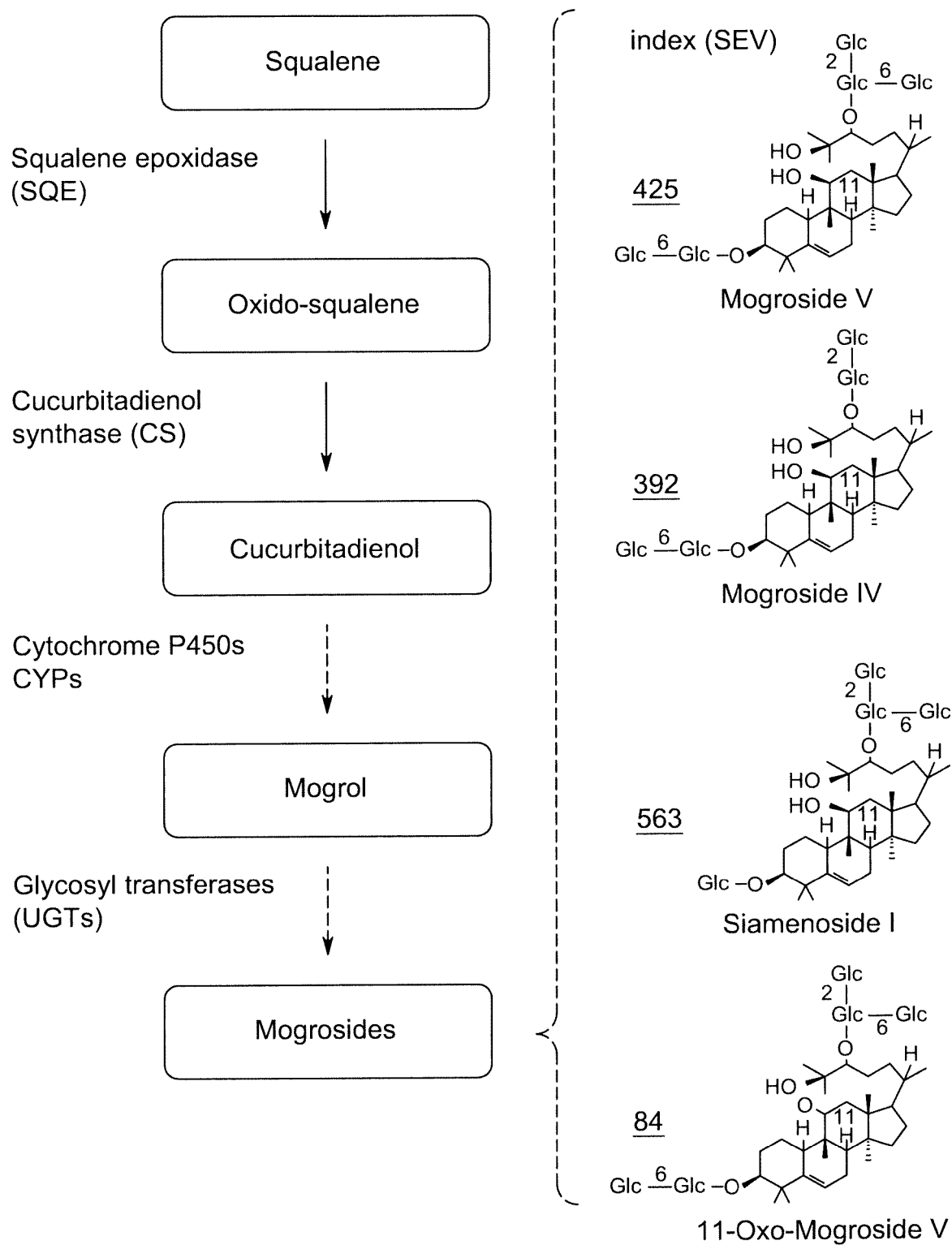


FIG. 3

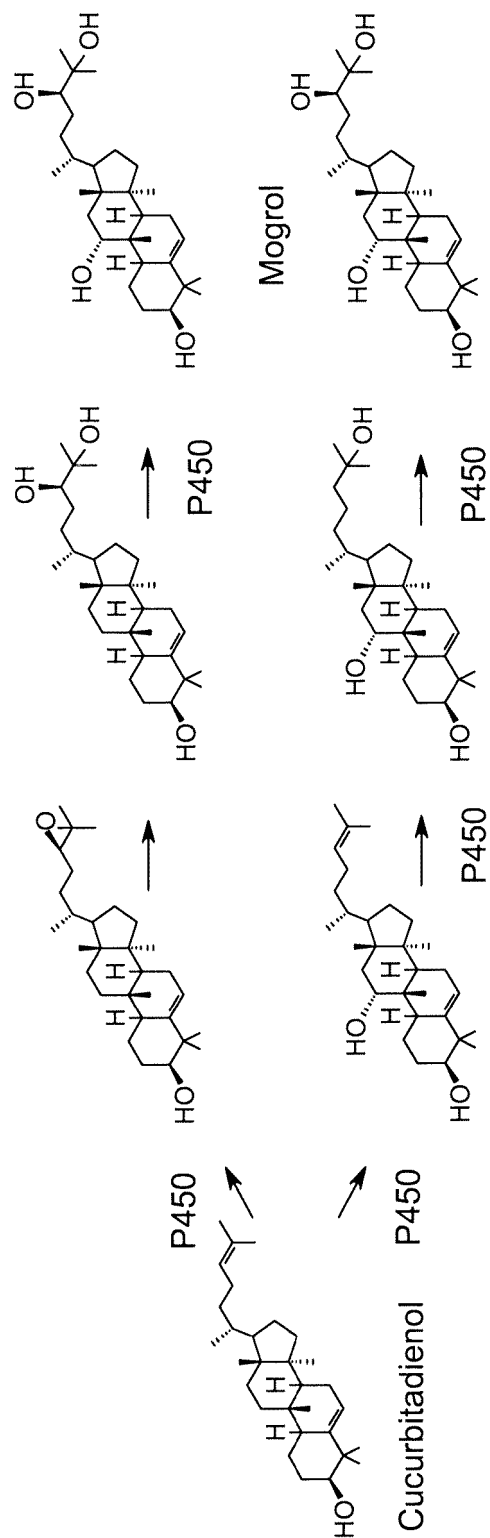
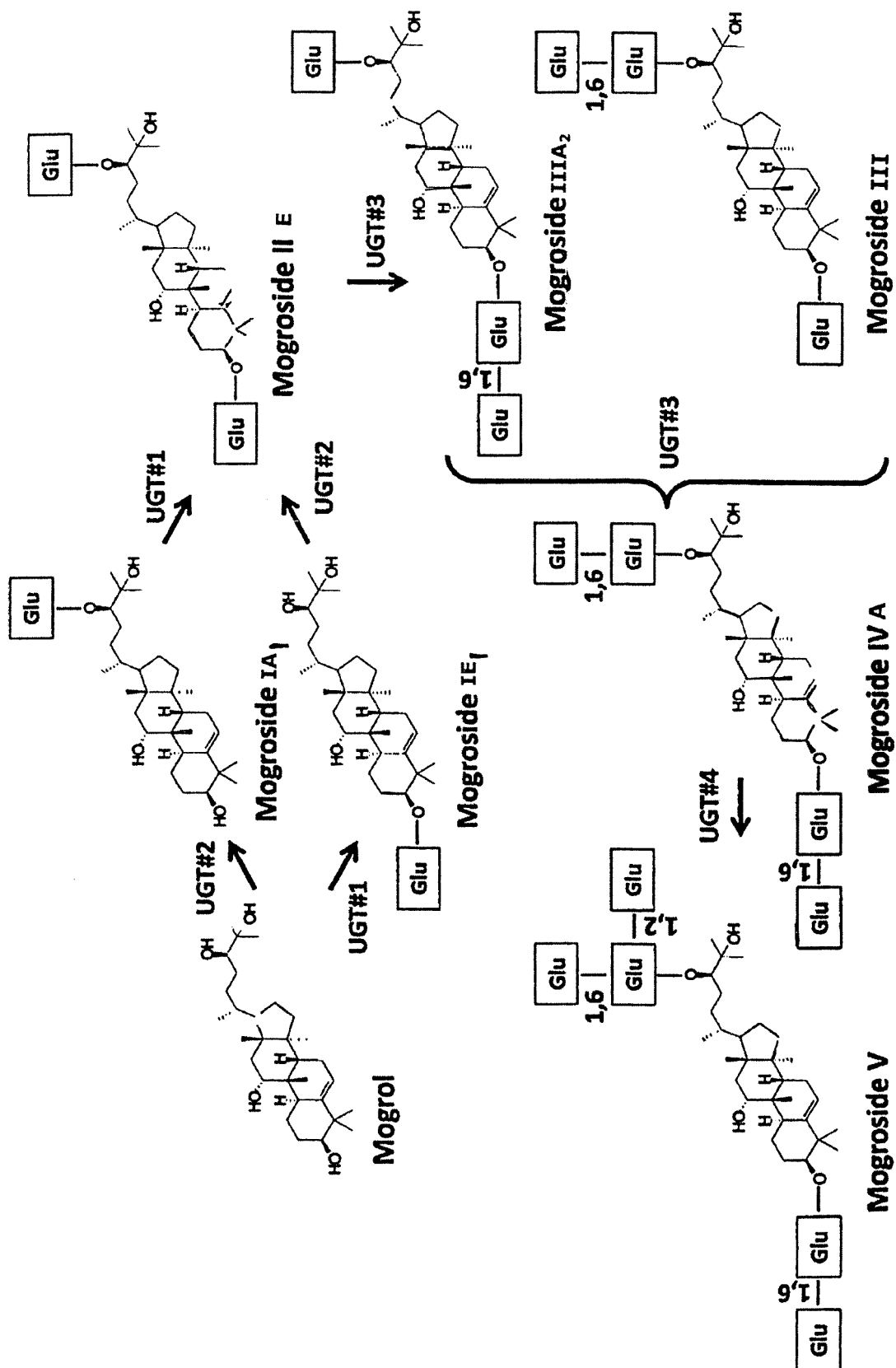
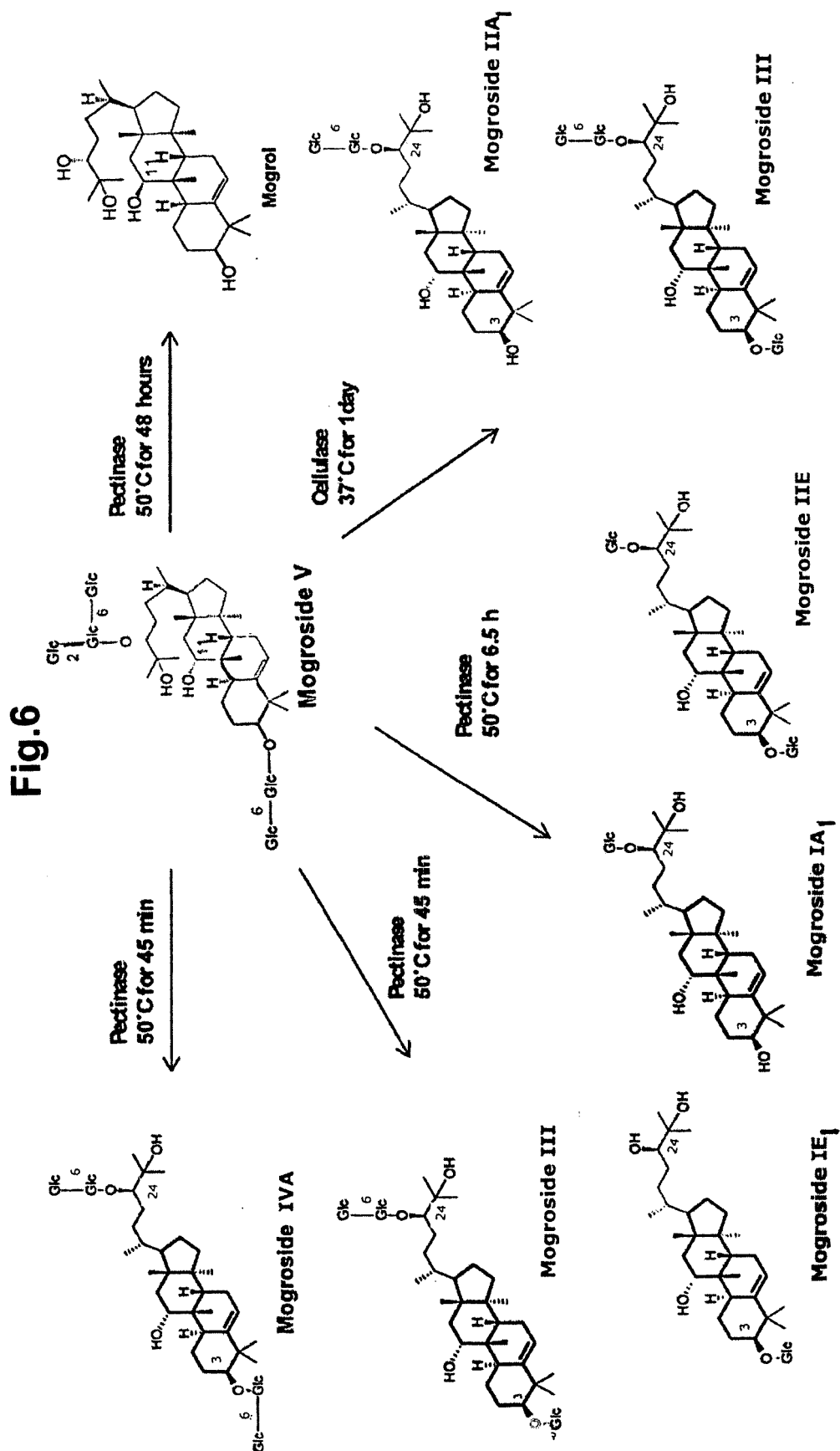


FIG. 4

Fig. 5





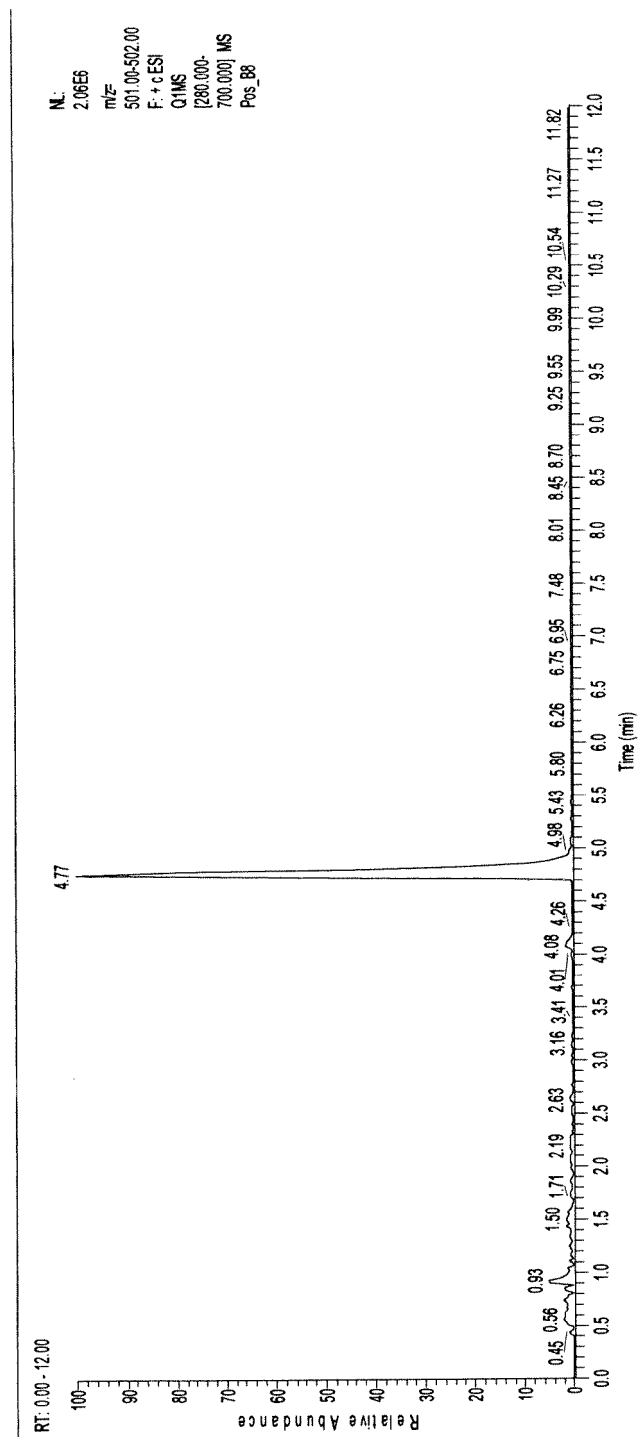


Fig. 7

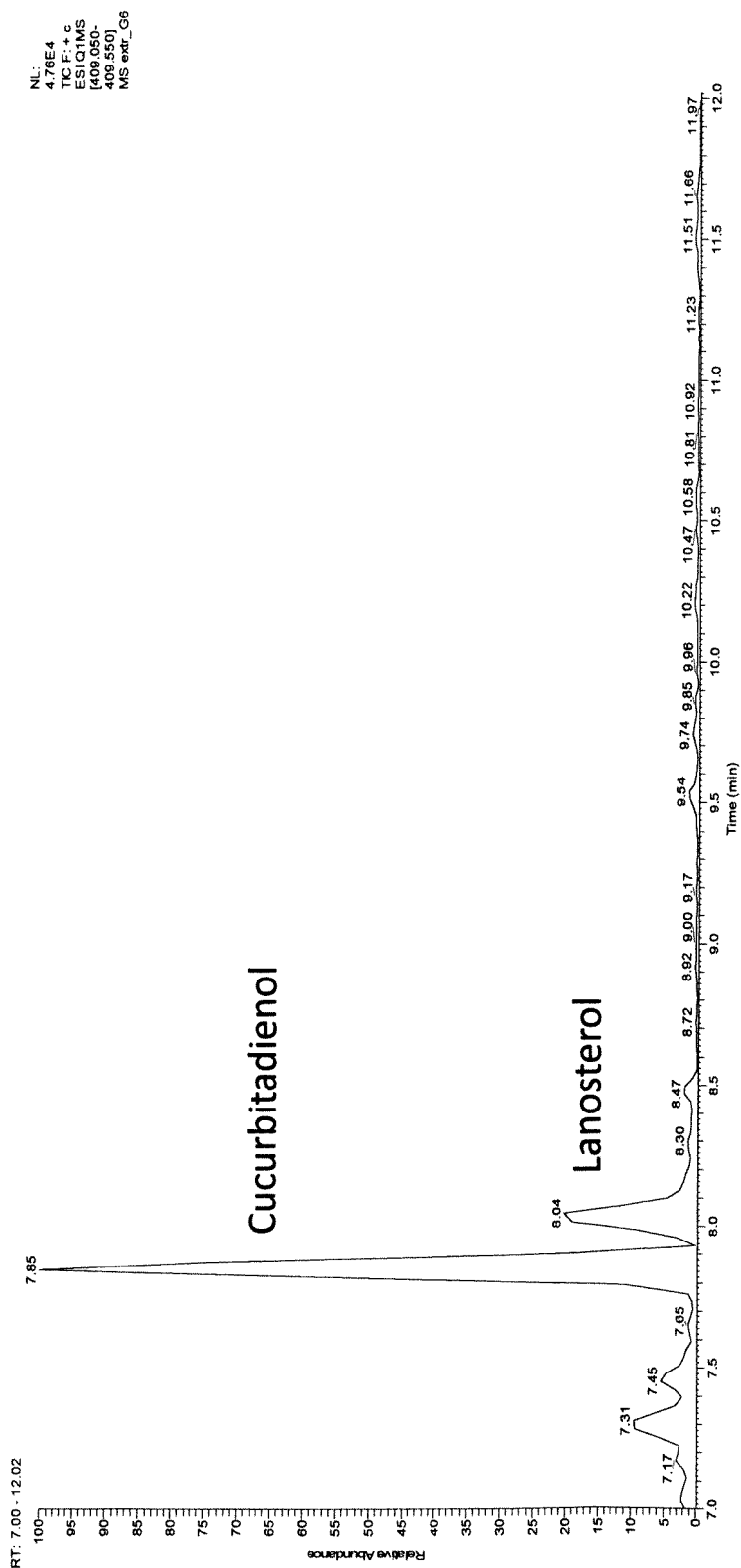
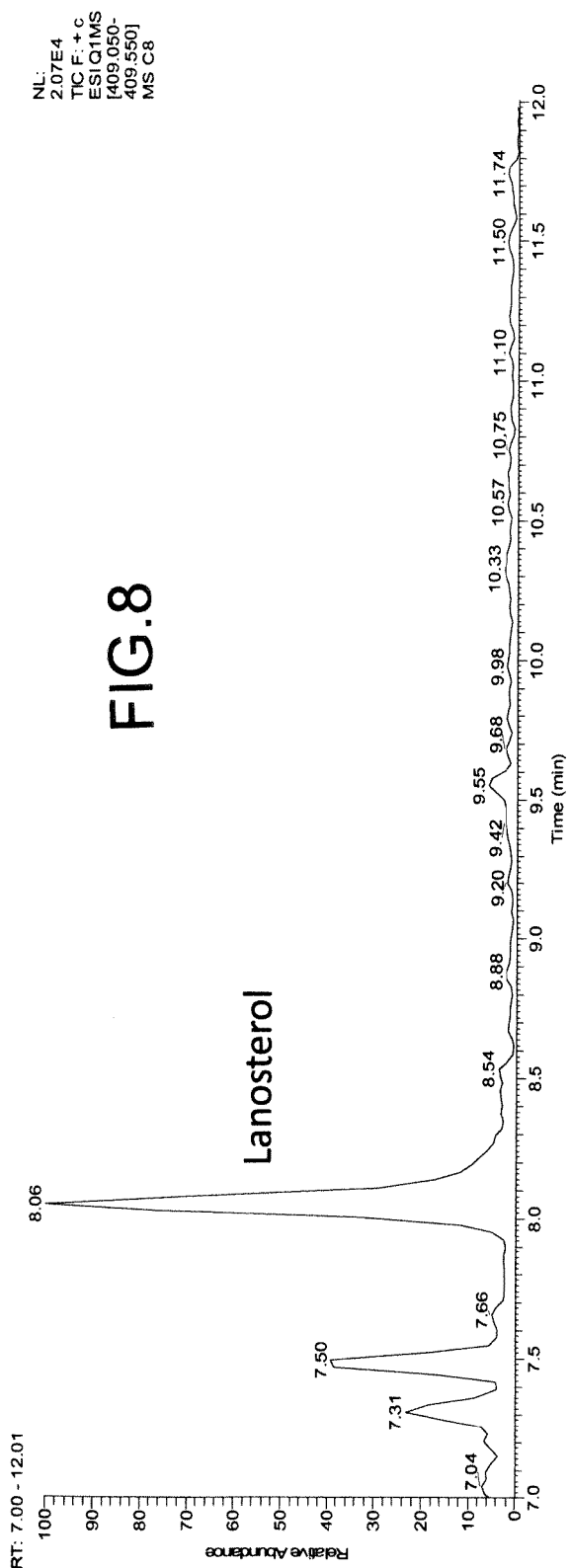


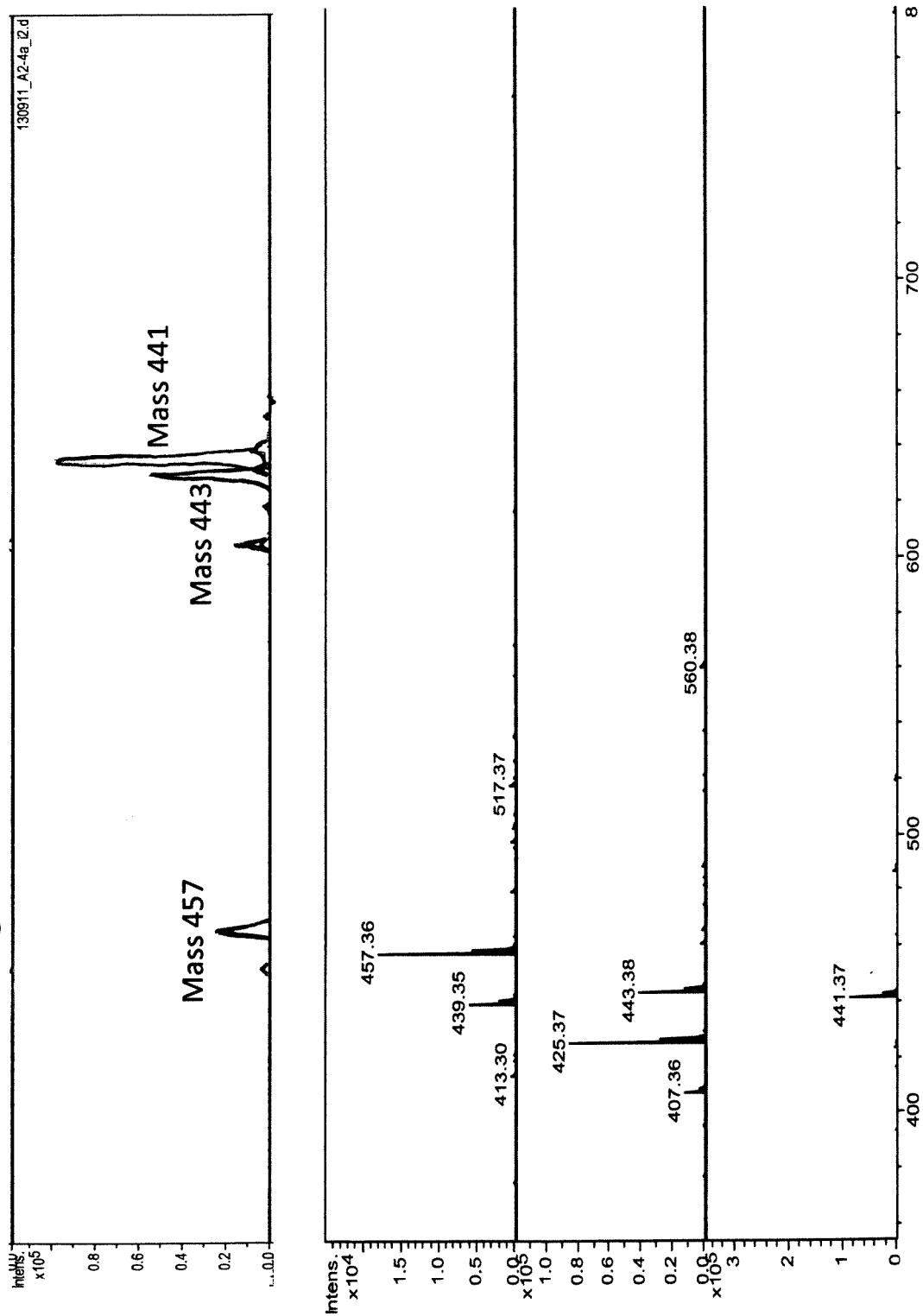
Fig. 9

Fig. 10A

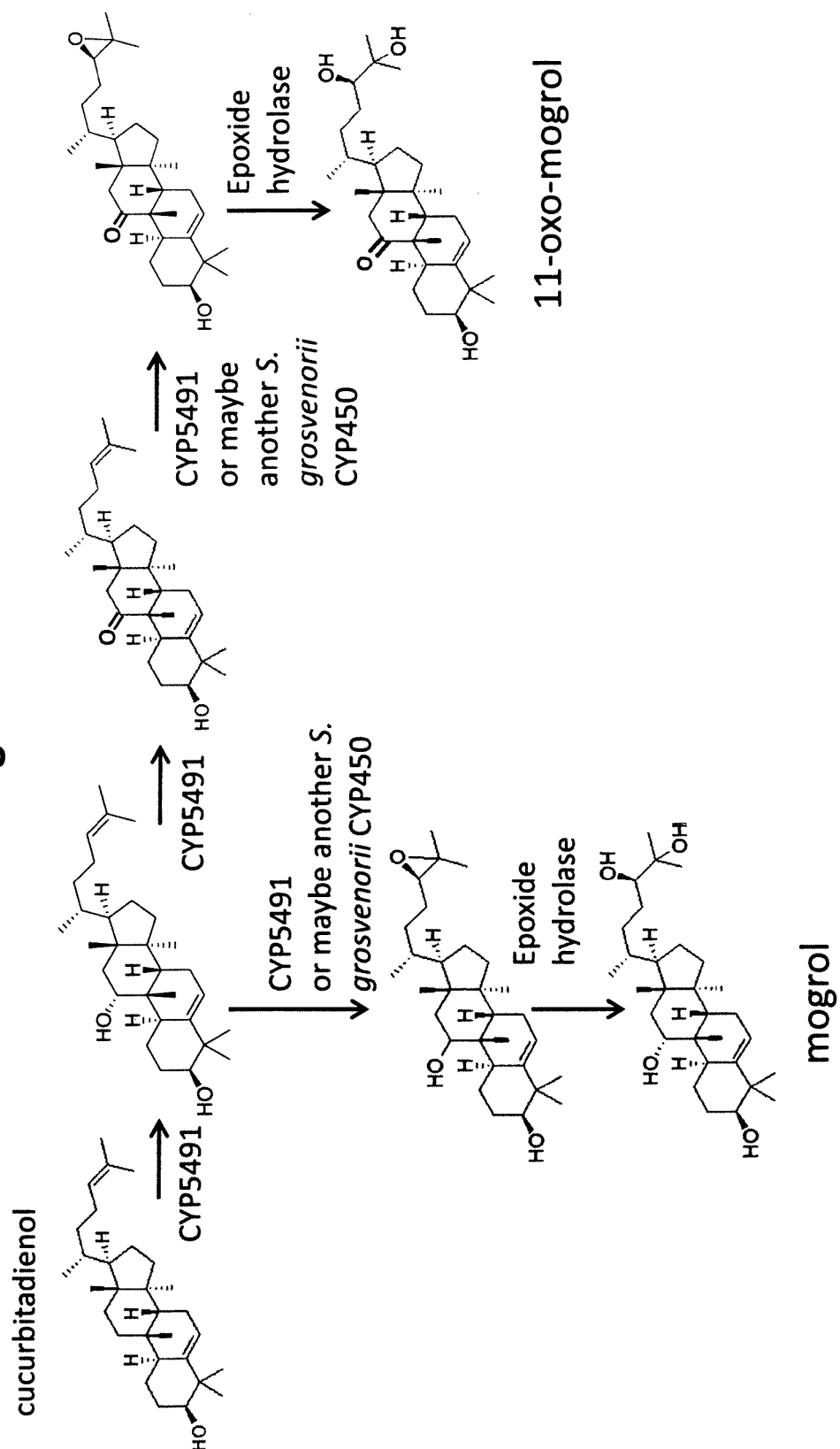


Fig. 10B

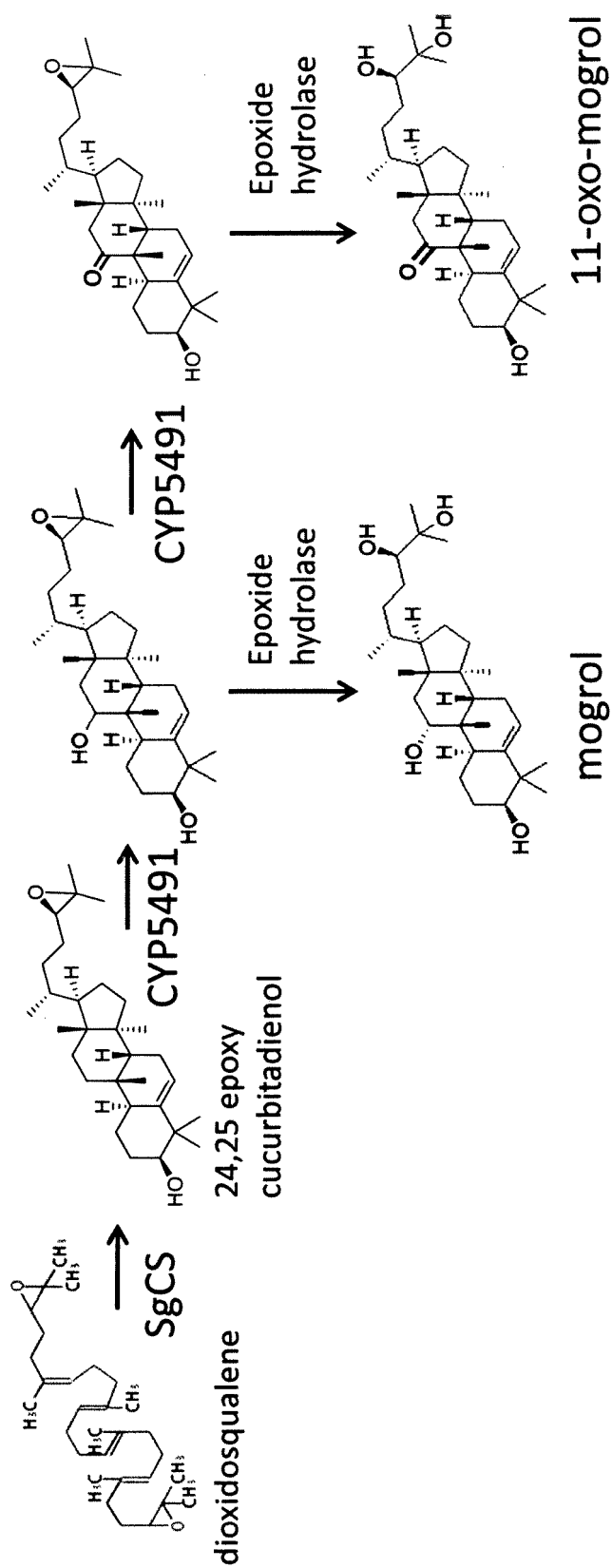
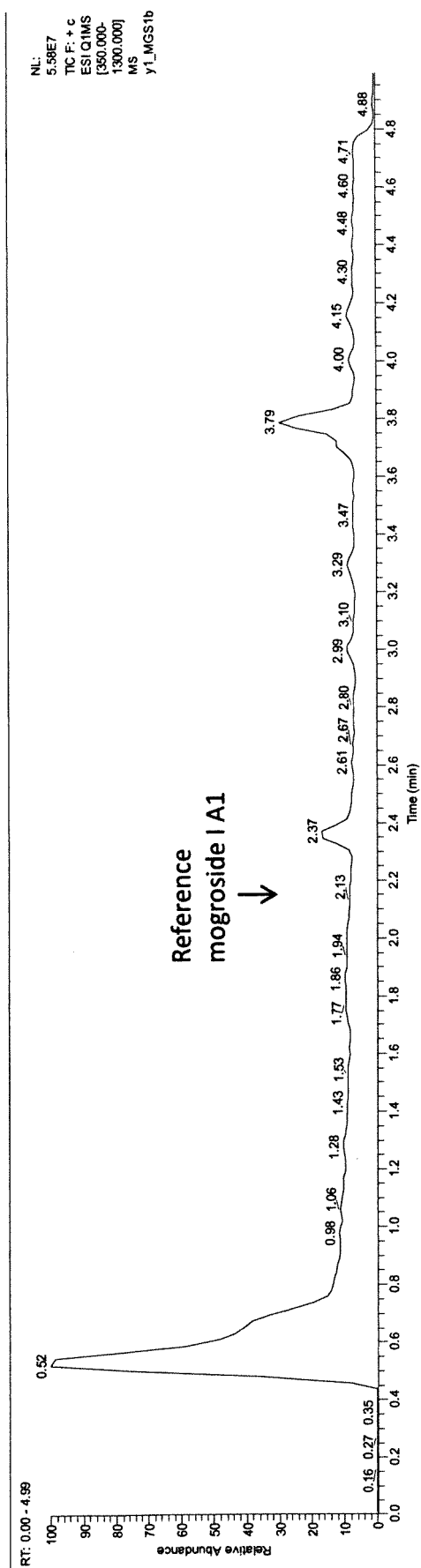


Fig. 11

A



B

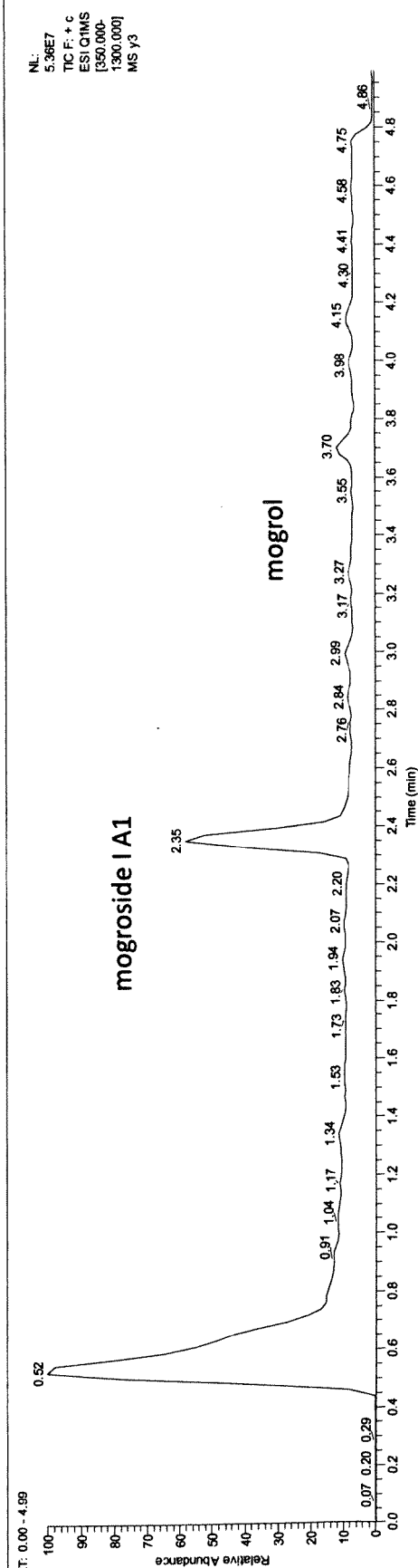


Fig. 12

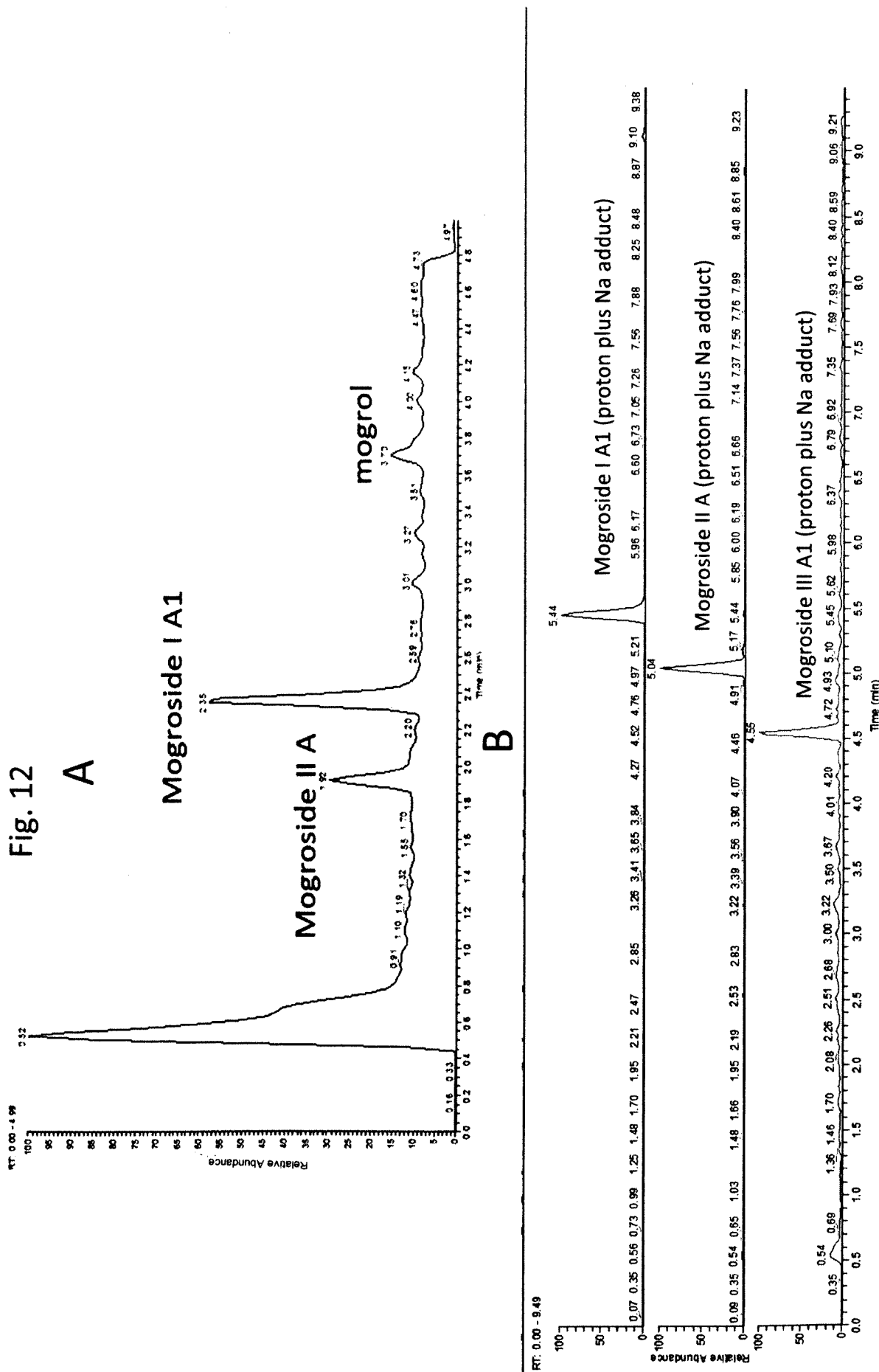


Fig. 13

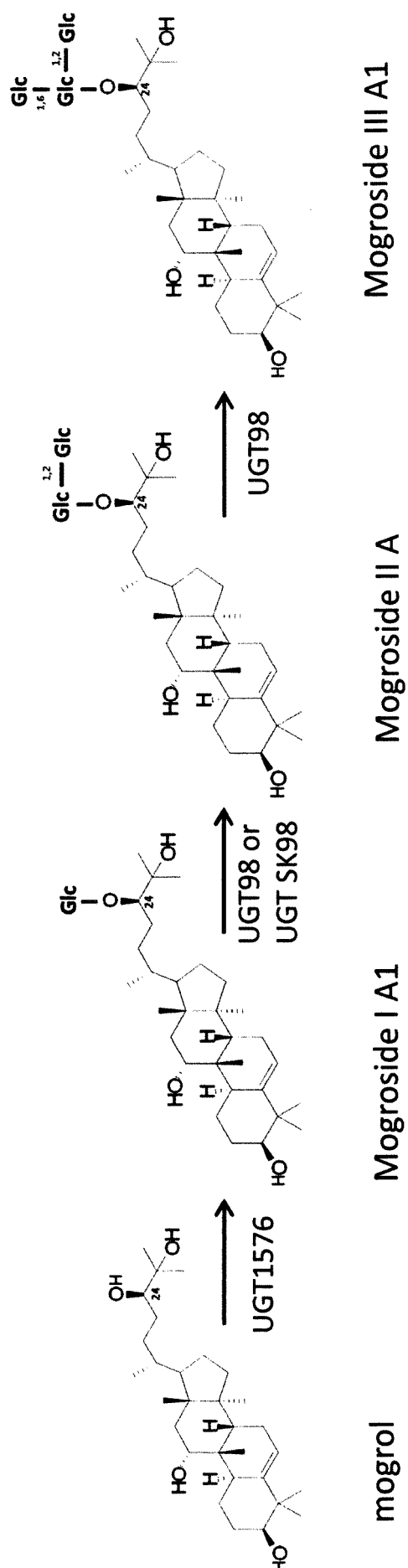


FIGURE 14

```
1  mwrlkvgaes vgeedekwvk svsnhlgrqv wefcadaaad tphqllqiqn arnhfhhnrf
61 hrkqssdlfl aiqyekeiak gakggavkvk egeevgkeav kstleralgf ysavqtrdgn
121 wasdlggplf llpglvialh vtgvlnsvls khhrvemcry lynhqnedgg wglhiegtst
181 mfgsalnyva lrlldedadg gdggamtkar awilerggat aitswgklwl svlgvyewsg
241 nnpippefwl lpyslphpg rmwchormvy lpmsylygkr fvgpitpkvl slrqelytip
301 yheidwnksr ntcakedlyy phpkmqdilw gsiyhvyepf ftrwpgkrlr ekalqaamkh
361 ihyedensry iclgpvnkvl nmlccwvedp ysdafklhlq rvhdylwvae dgmrmqgyng
421 sqlwdtafsi qaivatklvd syaptlrkah dfvkdsqige dcpgdpnvwf rhihkgawpl
481 strdhgwliis dctaeglkas lmlsklpstm vgepleknrl cdavnvllsl qndnggfasy
541 eltrsypwle linpaetfgd ividygyvec taatmealtl fklhpgghrt keidtaigka
601 anflekmqra dgswygcwgv cftyagwfgi kglvaagrtv nsclairkac eflskelpg
661 ggwgesylsc qnkvytnleg nkphlvntaw vlmalieagq gerdpaplhr aarlmmnsq
721 engdfvqgei mgvfknkncmi tyayrnifp iwalgeychr vlte (SEQ ID NO:1).
```

FIGURE 15

CYP533

ATGGAACCTCTCTCTACCAAACTGCAGCCGAGATCATCGCTGTTGTCTTGTCTTTCTACGCTCT
CATCCGGCTATTATCTGGAAGATTCAAGCTCTCAACAGAAGAGACTGCCACCTGAAGCCGGTGGCG
CCTGGCCACTGATCGGCCATCTCCATCTCCTAGGTGGGTCCGAACCTGCACATAAAACCTTGGCG
AACATGGCGGACGCCTACGGACCAGTTTTTACGTTGAAACTGGGCATGCATACAGCTTTGGTTAT
GAGCAGTTGGGAAATAGCGAGAGAGTGCTTTACTAAAAACGACAGAATCTTTGCCTCCCGCCCCA
TAGTCACTGCCTCAAAGCTTCTCACCTATAACCATAACCATGTTTGGGTTCAGCCAATATGGTCCA
TTCTGGCGCCATATGCGCAAAATAGCCACGCTTCAACTCCTCTCAAACCACCGCCTCGAGCAGCT
CCAACACATCAGAATATCGGAGGTCCAGACTTCGATTAAGAACTGTACGAGTTGTGGGTCAACA
GCAGAAATAATGGAGGCGAGAAAGTGTGGTGGAGATGAAGACGTGGTTCGGAGGCATAACCTTG
AACACCATATTCAAGATGGTGGTTCGGAAGCGATTCTCGACTGCTTTCGAAGGCAGTGGTGGCGA
ACGGTATCGGAAGGCGTTGAGGGATTCTCTTGAATGGTTTGGGGCATTGTTCCGTCAGATTCAT
TCCCGTTTTTAAGATGGTTGGATTGAGGAGATATGAGAAGGCGATGAAGAAGACGGCGAGTGTG
CTGGACGAGGTGCTTGATAAATGGCTCAAAGAGCATCAGCAGAGGAGAACTCCGGTGAAGTGA
GACGGAGGAGCAGCACTTCATGCACGTGATGCTGTCTATTGTTAAGGATGATGAAGAAGTATCCG
GCTACGATGCCGATACAGTCAAAAAGCTACATGTTTGAATTTAATAGTTGGTGGATTTCGACACT
ACACAAGTAACTATGACATGGGCTCTTTCTTTGCTTCTCAACAATGAAGAGGTATTAATAAAGGC
CCAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT
TGTTATATCTCCAGGCCATCGTGAAGGAACTTTGCGTTTGTACCCTTCAGCGCCAATCTCGACA
TTTCATGAGGCCATGGAAGATTGCACTGTTTCTGGCTACCACATCTTTTCAGGGACGCGTTTGAT
GGTGAATCTTCAAAGCTTCAAAGAGATCCACTTGCATGGGAGGATCCATGTGACTTTTCGACCGG
AGAGATTTCTGACAAGTCAATAAGGATTTGCATCTTAGAGGACATAGTCTCAATTGATACCATTT
GGGAGTGGTCAAGAATATGCCCTGGCATCTCGTTGCCATTCAAGTTTTGCATCTTACGCTTGC
AAATCTACTTCATGGGTTTGACATTGGAAGGCCATCTCATGAACCAATCGATATGCAGGAGAGTA
AAGGACTAACGAGTATTAATAAAGTCCACTTGAGGTTGTTTTAGCTCCACGCCTTGCTGCTCAA
GTTTTATGAGTGA

CYP937

ATGCCGATCGCAGAAGGTGCAGTCTCTGATTTGTTTGGTCCGCCACTCTTCTTTGCACTATATGA
TTGGTTCTTAGAGCATGGATCTGTTTATAAACTTGCCCTTTGGACCAAAGCCTTTGTTGTTGTAT
CAGATCCCATTGTGGCAAGATATATTCTTCGAGAAAATGCATTTGGTTATGACAAGGGAGTGCTT
GCTGATATTTTAGAACCGATAATGGGTAAAGGACTAATACCAGCTGACCTTGGCACTTGAAGCA
GAGGAGACGAGTTATTGCTCCAGGATTCCATGCCCTTGTACTTGAAGCTATGACCAAAGTATTTG
CCAATTGTTCAAGACGATCAATATTGAAATTGGAGAAGCTTCTAGGAGAAGGTGAAGTACAGGAG
AATAAACCATTGAGTTGGATATGGAAGCAGAGTTTTCAAGTTTGGCTCTTGATATCATTTGACT
CGGTGTTTTCAACTATGATTTTGGTTCTGTAACCAAAGAATCTCCGGTGATTAAGGCTGTATATG
GGACTCTTTTTGAAGCAGAGCATAGATCGACTTCTATATCCCATATTGGAAAGTACCTTTGGCA
AGGTGGATAGTCCCAAGGCAGCGTAAATTCCATGGTGACCTTAAGGTTATTAATGAGTGTCTTGA
TGGCCTAATACGCAACGCAAGAGAAACCCGAGACGAAACGGATGTTGAGAAATTGCAGCAAAGGG
ACTACTTAAATCTCAAGGATGCCAGTCTTTTGGCTTTCTTAGTTGATATGCGGGGAGCTGATGTT
GATGATCGCCAGCTTAGGGACGATCTGATGACGATGCTTATTGCTGGCCATGAAACAAGTCTGCTG
TGTGCTTACATGGGCTGTTTTTTTGGCTTGCACAAAATCCTTCAAAAATGAAAAAGCGCAAGCAG
AGATTGATTTGGTTCTTGGCATGGGGAGGCCAAGTCTTGAATCATTTAAAGCATTGAAGTACATC
AGACTTATCGTTGCAGAGACTCTTCGTTTGTTCCTCAGCCTCCATTGCTGATAAGACGAGCTCT
CAAATCAGATATATTACCAGGAGGATACAATGGTGACAAAAGTGGATATGCAATTCCTGCAGGGA
CTGACATCTTCATCTCTGTTTACAATCTCCACAGATCTCCCTACTTCTGGGATAATCCTCAAGAA
TTTGAACCAGAGAGATTTCAAGTAAAGAGGGCAAGCGAGGGGAATTGAAGGATGGGATGGTTTCGA
CCCATCTAGAAGCCCTGGAGCTCTATACCCGAATGAGATTGTAGCAGACTTTTCCTTCTTACCAT

TTGGTGGAGGCCCTAGAAAATGTGTGGGAGATCAATTTGCTCTAATGGAGTCAACTATAGCATTG
GCCATGTTACTGCAGAAGTTTGTATGTGGAGCTAAAAGGAAGTCCAGAATCTGTAGAACTAGTTAC
TGGAGCCACAATACATACCAAAGTGGGTTGTGGTGCAAACTGAGAAGAAGATCACAAAGTAACT
GA

CYP1798

ATGGAAATGTCCTCAAGTGTGCGCAGCCACAATCAGTATCTGGATGGTCGTCGTATGTATCGTAGG
TGTAGGTTGGAGAGTCGTAAATTGGGTTTGGTTGAGACCAAAGAAATTGGAAAAGAGATTGAGAG
AACAAGGTTTGGCCGGTAATTCTTACAGATTGTTGTTTCGGTGACTTGAAGGAAAGAGCTGCAATG
GAAGAACAAGCAAATTCAAAGCCTATAAACTTCTCCCATGACATCGGTCCAAGAGTTTTCCTTC
AATGTACAAGACCATCCAAAACACGGTAAAACTCCTACATGTGGTTAGGTCCATACCCTAGAG
TCCACATCATGGATCCACAACAATTGAAGACCGTTTTTACTTTGGTCTACGACATTCAAAAGCCA
AATTTGAACCCCTTTGATTAAATTCTTGTTAGATGGTATCGTTACACATGAAGGTGAAAAGTGGGC
TAAGCACAGAAAGATTATTAACCCAGCATTCCATTTGGAAAAGTTGAAGGATATGATACCTGCTT
TCTTTCATCATGTAATGAAATCGTCAACGAATGGGAAAGATTGATTTCAAAGAAGGTTCTCTGC
GAATTGGATGTAATGCCTTATTTGCAAAATTTGGCCGCTGACGCCATTTCAAGAACCGCTTTTGG
TTCTTCATACGAAGAAGGTAAAATGATCTTCCAATTGTTGAAGGAATTGACTGATTTGGTTGTCA
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TCCAAGGTGAAGTAATAACAAGGAAGATGGCATGTCTATTGAAGACGTCATCGAAGAGTGTAAAG
GTATTTTATATAGGTGGTCAAGAACTACAGCAAGATTATTGATCTGGACTATGATATTGTTGTC
CAGTCATACAGAATGGCAAGAAAGAGCCAGAACCGAAGTCTTGAAGGTATTTGGTAATAAGAAAC
CAGATTTGACGCGTTTGTCAAGATTGAAGGTAGTTACTATGATCTTGAACGAAGTTTAAAGATTG
TACCCACCTGCTTCCATGTTGACAAGAATCATCCAAAAGGAAACAAGAGTTGGTAAATTAACCTT
GCCAGCAGGTGTTATCTTGATAATGCCTATCATCTTGATACATAGAGATCACGACTTGTGGGGTG
AAGATGCTAACGAGTTTAAACCAGAAAGATTCAAGTAAAGGTGTTTCTAAGGCAGCCAAAGTCCAA
CCAGCCTTTTTCCCTTTTGGTTGGGGTCCTAGAATTTGCATGGGTCAAAACTTCGCTATGATCGA
AGCTAAGATGGCATTGAGTTTGTCTTGCAGAGATTTTCTTTTGAATTGTCTTCATCCTACGTTT
ATGCACCAACTGTGCTCTTCACTACACAACCACAACACGGTGCCACATCGTTTTGAGAAAGTTA
TGA

CYP1994

ATGGAACCACAACCAAGTGCAGGAATTCAACTGGAATCACAGCCTAAGCACCGTCGCTATCGGTGT
CATTGCCATTATTTTCTTCCGTTTTCTCGTCAAAAGAGTCACCGGCGCCGGTGAGCGAAAGGGTC
CGAAGCCGCCAAAAGTAGCCGGAGGGTGGCCTCTAATTGGCCACCTCCCTCTCCTCGGAGGACCT
GAACTGCCCCATGTCAAACCTGGGTGGTTTGGCTGATAAATATGGTCCAATCTTCTCGATCCGGCT
GGGTGTCCACTCCGCCGTCGTGATAAACAGTTGGGAGGCGGCGAAACAGTTATTAACCAACCATG
ACGTCGCCGTCTCTTCCCGCCCCCAAATGCTCGGCGGAAACTCCTGGGCTACAACCTACGCCGTG
TTTGGTTTTCGGACCCTACGGCTCTTACTGGCGCAACATGCGCAAGATAACCACGCAAGAGCTTCT
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AGCTCTACCAGCACTGGAAAGAAAGAGAGACGGTCACGACCAAGCCTTGGTGGAAGTGCAGCAG
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ATATGGGGCTTTTTCTACTGGGTGATGCTGTTCCATATCTAGGATGGTTGGACGTCGGCGGCCAT
GTGAAGGCGATGAAGAAAACCTCAAAGAATTGGACCGTATGTTAACACAGTGGTTGGAGGAGCA
CAAGAAGGAAGGACCCAAGAAAGATCATAAAGACTTCATGGACGTGATGCTTTCAGTTCTCAATG
AAACATCCGATGTTCTTTCAGATAAGACCCATGGCTTCGATGCTGATACCATCATCAAAGCTACA
TGTATGACGATGGTTTTAGGAGGGAGTGATACGACGGCGGTGGTTGTGATATGGGCAATCTCGCT
GCTGCTGAATAATCGCCCTGCGTTGAGAAAAGTGCAAGAAGAACTGGAAGCCCATATCGGCCGAG
ACAGAGAAGTGGAGGAATCGGATCTCGGTAAGCTAGTGTATTTGCAGGCAGTCGTGAAGGAGACA
TTGCGGCTGTACGGAGCCGGAGGCCTTTTCTTTTCGTGAAACCACAGAGGATGTCACCATCGACGG

FIGURE 15 (CONT.)

ATTCCATGTCGAGAAAGGGACATGGCTGTTTCGTGAACGTGGGGAAGATCCACAGAGATGGGAAGG
TGTGGCCGGAGCCAACGGAGTTCAAACCGGAGAGGTTTCTGACGACCCACAAAGATTTTGATCTG
AAGGGCCAGCGGTTTGTAGCTCATCCCTTTTCGGGGGAGGAAGAAGATCGTGCCCTGGAATGTCTTT
TGGGCTCCAAATGCTACAGCTTATTTTGGGTAAACTGCTTCAGGCTTTTGATATATCGACGCCGG
GGGACGCCCGCTTGATATGACCGGATCCATTGGACTGACGAACATGAAAGCCACTCCATTGGAA
GTGCTCATCACCCCGCGCTTGCCTCTTTTCGCTTTACGATTGA

CYP2048

ATGGAGACTCTTCTTCTTCATCTTCAATCGTTATTTTCATCCAATTTCTTCACTGGTTTCGTTGT
CCTCTTTAGCTTCTGTTCTGCTCCAGAAATGGTTACTGACACGTCCAAACTCTTCATCAGAAG
CCTCACCCCTTCTCCACCAAAGCTTCCCATCTTCGGACACCTTCTAAACCTGGGTCTGCATCCC
CACATCACCTCGGAGCCTACGCTCGCCGCTATGGCCCTCTCTTCTCTCCACTTCGGCAGCAA
GCCCACCATCGTCGTCTCTTCTGCCGAAATCGCTCGCGATATCATGAAGACCCACGACCTCGTCT
TCGCCAACCGTCTTAAATCAAGCATCAGCGAAAAGATTCTTTACGGCTCCAAAGATTTAGCCGCA
TCTCCTTACGGCGAATACTGGAGGCAGATGAAAAGCGTTGGCGTGCTTCATCTTTTGAGCAACAA
AAGGGTTCAATCCTTTTCGCTCTGTCTCAGAGAAGAAGAAGTCGAACTGATGATCCAGAAGATCCAAC
AGAACCCCTATCAGTTAATTTAAGCGAAATATTCTCTGGACTGACGAACGACATAGTTTGCAGG
GTGGCTTTAGGGAGAAAGTATGGCGTGGGAGAAGACGGAAAGAAGTTCCGGTCTCTTCTGCTGGA
GTTTGGGGAAGTATTGGGAAGTTTCAGTACGAGAGACTTCATCCCGTGGCTGGGTGGATTGATC
GTATCAGTGGGCTGGACGCCAAAGCCGAGAGGGTAGCCAAAGAGCTCGATGCTTTCTTTGACAGA
GTGATCGAAGATCACATCCATCTAAACAAGAGAGAGAATAATCCCGATGAGCAGAAGGACTTGGT
GGATGTGCTGCTTTGTGTACAGAGAGAAGACTCCATCGGGTTTCCCCTTGAGATGGATAGCATAA
AAGCTTTAATCTTGGACATGTTTGTCTGCAGGCACAGACACGACATACACGGTGTGGAGTGGGCA
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AGGTGAGAAAGAACACGTAAGTGAGGATGATTTAGAAAAGATGCATTACTTGAAGGCAGTAATCA
AAGAAACGCTGCGGCTACACCCACCAATCCCACTCCTCGTCCCCAGAGAATCAACCCAAGACATC
AGGTTGAGGGGTACGATATCAGAGGCGGCACCCGGGTTATGATCAATGCATGGGCCATCGGAAG
A

CYP2740

ATGTGCGATGAGTAGTGAAATTGAAAGCCTCTGGGTTTTTCGCGCTGGCTTCTAAATGCTCTGCTTT
AACTAAAGAAAACATCCTCTGGTCTTTACTCTTCTTTTCTAATCTGGGTTTCTGTTTCCATTC
TCCACTGGGCCCATCCGGGCGGCCCGGCTTGGGGCCGCTACTGGTGGCGCCGCCGCCGAGCAAT
TCCACCGCCGCTGCTATTCCCGGCCCGAGAGGCCTCCCCCTCGTCGGCAGCATGGGCTTGATGGC
CGACTTGGCCACACCGGATTGCCGCCGTGGCTGACTCCTTAAACGCCACCCGCCCTCATGGCCT
TTTCGCTCGGCGACACTCGCGTGATCGTCACATGCAACCCCGACGTCGCCAAAGAGATTCTCAAC
AGCTCCCTCTTCGCCGACCGCCCCGTTAAGGAGTCCGCTTACTCCTTGATGTTCAACCGCGCCAT
TGGGTTGCCCCCTATGGCCTTTACTGGCGGACCCTCCGCCGCATCGCTTCCACACCTCTTCT
GCCCCAAGCAAATCAAGTCTCTCCAGTCCCAGCGCCGCCAAATCGCTTCCCAAATGGTCGCAATG
TTCGCAAACCGCGATGCCACACAGAGCCTCTGCGTTCGCGACTCTCTCAAGCGGGCTTCTCTCAA
CAACATGATGGGCTCTGTTTTTCGGCCGAGTTTACGACCTCTCTGACTCGGCTAACAATGACGTCC
AAGAACTCCAGAGCCTCGTCGACGAAGGCTACGACTTGCTGGGCCTCCTCAACTGGTCCGACCAT
CTCCCATGGCTCGCCGACTTCGACTCTCAGAAAATCCGGTTCAGATGCTCCCGACTCGTCCCAA
GGTGAACCACTTCGTGCGCCGGATCATCGCCGAACACCGCGCCAAATCCGACAACCAAGTCCTAG
ATTTTCGTGACGTTTTGCTCTCTCTCCAAGAAGCCGACAAACTCTCTGACTCCGATATGATCGCC
GTTCTTTGGGAAATGATTTTTCTGTTGGGACGGACACGGTGGCAGTTTTAATCGAGTGGATACTGGC
CAGGATGGTACTTCACAACGATATCCAAAGGAAAGTTCAAGAGGAGCTAGATAACGTGGTTGGGA
GTACACGCGCCGTCGCGGAATCCGACATTCCGTGCTGGTGTATCTAACGGCTGTGGTTAAGGAA
GTTCTGAGGTTACATCCGCCGGGCCACTCCTGTGCTGGGCCCGCCTAGCCATCACTGATACAAT
CATCGATGGGCATCACGTGCCCGGGGGACCACCGCTATGGTTAACATGTGGTCGATAGCGCGGG
ACCCACAGGTCTGGTCGGACCCACTCGAATTTATGCCCCAGAGGTTTGTGTCCGACCCCGGTGAC
GTGGAGTTCTCGGTCATGGGTTCCGATCTCCGGCTGGCTCCGTTCGGGTCGGGCAGAAGGACCTG

FIGURE 15 (CONT.)

INCORPORATED BY REFERENCE (RULE 20.6)

CCCCGGGAAGGCCTTCGCCTGGACAACTGTCACCTTCTGGGTGGCCACGCTTTTACACGACTTCA
AATGGTCGCCGTCCGATCAAAACGACGCCGTGACTTGTGCGAGGTCCTCAAGCTCTCCTGCGAG
ATGGCCAATCCCCTCACCGTTAAAGTACACCCAAGGCGCAGTTTAAAGCTTTTAA

CYP3404

ATGGATGGTTTTCTTCCAACAGTGGCGGCGAGCGTGCCTGTGGGAGTGGGTGCAATATTGTTTAC
GGCGTTGTGCGTCGTCGTGGGAGGGGTTTTGGTTTATTTCTATGGACCTTACTGGGGAGTGAGAA
GGGTGCCCTGGTCCACCAGCTATTCCACTGGTCGGACATCTTCCCTTGCTGGCTAAGTACGGCCCA
GACGTTTTCTCTGTCTTGGCACCCAATATGGCCCTATCTTCAGGTTCCATATGGGTAGGCAGCC
ATTGATAATTATAGCAGACCCTGAGCTTTGTAAAGAAGCTGGTATTAAGAAATTCAGGACATCC
CAAATAGAAGTGTCCCTTCTCCAATATCAGCTTCCCCTCTTCATCAGAAGGGTCTTTTCTTCACA
AGGGATGCAAGATGGTCGACAATGCGGAACACGATATTATCGGTCTATCAGTCCTCCCATCTAGC
GAGACTAATACCTACTATGCAATCAATCATTGAACTGCAACTCAAATCTCCATTCTCTGTCC
AGGAAGACATCCCTTTCTCCAATCTCTCCCTCAAATTGACCACCGATGTGATTGGAACAGCAGCC
TTCGGTGTCAACTTTGGGCTCTCTAATCCACAGGCAACCAAACTTGTGCTACCAACGGCCAAGA
CAACAAAATGACGAAGTTTCAGACTTCATCAATCAACACATCTACTCCACAACGCAGCTCAAGA
TGGATTTATCAGGTTCTTCTCAATCATACTTGGACTGCTTGTCCTTATACTCCAAGAACCATTT
AGACAAGTCCTAAAGAGAATACCATTCACCATGGACTGGAAAGTGGACCGGACAAATCAGAAATT
AAGTGGTCGGCTTAATGAGATTGTGGAGAAGAGAATGAAGTGAACGATCAAGGTTCAAAGACT
TCTTATCGCTCATTTTGAGAGCAAGAGAGTCAGAGACAGTATCAAGGAATGTCTTCACTCCAGAC
TACATCAGTGCAGTTACGTATGAACACCTACTTGCTGGGTGGCTACCACGGCGTTTACGTTGTC
TTCTATTGTATATTTAGTTGCTGGGCATCCAGAAGTCGAGAAGAAGTTGCTAGAAGAGATTGACA
ACTTTGGTCCATCCGATCAGATACCAACAGCTAATGATCTTCATCAGAAGTTTCCATATCTTGAT
CAGGTGATTAAAGAGGCTATGAGGTTCTACACTGTTTCCCCTCTAGTAGCCAGAGAAACAGCTAA
AGATGTGGAGATTGGTGGATATCTTCTTCAAAGGGGACATGGGTTTGGTTAGCACTTGGAGTTC
TTGCCAAGGATCCAAAGAAGTTTCCAGAACCAGATAAATTCAAACCAGAGAGGTTTGATCCAAAT
GAAGAAGAGGAGAAACAAAGGCATCCTTATGCTTTAATCCCCTTTGGAATTGGTCCTCGAGCATG
CATTGGTAAAAAATTCGCCCTTCAGGAGTTGAAGCTCTCGTTGATTCAATTGTACAGGAAGTTG
TATTTCCGGCAT

CYP3968

ATGGAAATCATTTTATCATATCTCAACAGCTCCATAGCTGGACTCTTCTCTTGCTTCTCTTCTC
GTTTTTTGTTTTGAAAAAGGCTAGAACCTGTAAACGCAGACAGCCTCCTGAAGCAGCCGGCGGAT
GGCCGATCATCGGCCACCTGAGACTGCTCGGGGGTTGCAACTTCCCCATGAAACCTTGGGAGCC
ATGGCCGACAAGTATGGACCAATCTTCAGCATCCGAGTTGGTGTCCACCCATCTCTTGTTATAAG
CAGTTGGGAAGTGGCTAAAGAGTGCTACACCACCCTCGACTCAGTTGTCTCTTCTCGTCCCAAGA
GTTTGGGTGGAAAGTTGTTGGGCTACAACCTTCGCCGCTTTTGGGTTTACGGCCTTATGATTCCTTT
TACCGGAGTATCCGCAAAACCATAGCCTCCGAGGTGCTGTGCAACCGCCGCTCTGGAGTTGCAGAG
ACACATTCGAGTTTCTGAGGTGAAGAGATCGGTGAAGGAGCTTTACAATCTGTGGACGCAGAGAG
AGGAAGGCTCAGACCACATACTTATTGATGCGGATGAATGGATTGGTAATATTAATTTGAACGTG
ATTCTGATGATGGTTTGTGGGAAGCGGTTTCTTGCGGTTCTGCCAGCGATGAGAAGGAGATGAG
GCGGTGTCTCAAAGTCTCGAGAGATTTCTTCGATTTGACAGGGCAGTTTACGGTGGGAGATGCCA
TTCTTTCTCTGCGATGGCTGGATTTGGGTGGATATGCGAAGGCGATGAAGAAAACCTGCAAAAGAA
ATGGACTGTCTCGTTGAGGAATGGCTGGAAGAACCCGCCGGAAGAGAGACTCCGGCGCCACCGA
CGGTGAACGTGACTTCATGGATGTGATGCTTTCGATTCTTGAAGAGATGGACCTTGCTGGCTACG
ACGCTGACACAGTCAACAAAGCCACATGCCTGAGCATTATTTCTGGGGGAATCGATACTATAACG
CTAATCTGACATGGGCGATCTCGTTATTGCTGAACAATCGAGAGGCACTGCGAAGGGTTCAAGA
GGAGGTGGACATCCATGTGCGAAACAAAGGCTTGTGGATGAATCAGACTTGAGCAAGCTGGTGT
ATCTCCAAGCCGTCGTGAAAGAGACATTAAGGTTGTACCCAGCAGGGCCGCTGTCCGGAGCTCGA
GAGTTCAGTCGGGACTGCACGGTCGGAGGGTATGACGTGGCCGCCGGCACACGGCTCATCACAAA
CCTTTGGAAGATACAGACGGACCCTCGGGTGTGGCCGGAGCCACTTGAGTTCAGGCCGGAGAGGT
TTCTGAGCAGCCACCAGCAGTTGGATGTGAAGGGCCAGAACTTTGAAGTGGCCCCATTGTTGT

FIGURE 15 (CONT.)

GGAAGAAGAGTGTGCCCTGGGGCGGGGCTTGGGGTTCAGATGACGCAGTTGGTGCTGGCGAGTCT
GATTCATTCGGTGGAACCTGGAACTCGCTCCGATGAAGCGGTGGACATGGCTGCTAAGTTTGGAC
TCACAATGTACAGAGCCACCCCTCTTCAGGCTCTCGTCAAGCCACGCCTCCAAGCCGGTGCTTAT
TCATGA

CYP4112

ATGGGTGTATTGTCCATTTTATTATTTCAGATATTCCGTCAAGAAGAAGCCATTAAGATGCGGTCA
CGATCAAAGAAGTACCACAGATAGTCCACCTGGTTCAAGAGGTTTGCCATTGATAGGTGAAACTT
TGCAATTCATGGCTGCTATTAATTCTTTGAACGGTGTATACGATTTTCGTTAGAATAAGATGTTTG
AGATACGGTAGATGCTTTAAGACAAGAATCTTCGGTGAAACCCATGTTTTTGTCTCAACTACAGA
ATCCGCTAAGTTGATCTTGAAGGATGGTGGTGAAAAATTACCAAAAAGTACATCAGATCAATCG
CTGAATTGGTTGGTGACAGAAGTTTGTATGTGCATCTCATTGCAACACAAGAGATTGAGAGGT
TTGTTGACTAATTTGTTTTCTGCCACATTCTTGGCTTCTTTTCGTAACCTCAATTCGATGAACAAAT
CGTTGAAGCTTTTAGATCATGGGAATCCGGTAGTACCATAATCGTTTTGAACGAAGCATTGAAGA
TCACTTGTAAGGCCATGTGCAAAATGGTCATGTCTTAGAAAGAGAAAACGAATTGGAAGCTTTG
CAAAAGGAATTGGGTCATGTTTGTGAAGCTATGTTGGCATTTCATGCAGATTCCCTGGGTACAAG
ATTTACAATGGTTTGAAGGCAAGAAGAAGATCATTAAAGTTGTCGAAATGGCCATTAGAGAAA
GAAGAAGATCTGAAGCTCCTAGAGAAGATTTCTTGCAAAGATTGTTGACAGAAGAAAAGGAAGAA
GAAGACGGTGGTGGTGTTTTAAGTGATGCCGAAATGGTGACAACATATTGACAATGATGATCGC
AGGTCAAGATACCACTGCCTCTGCTATTACCTGGATGGTCAAGTTTTTTGGAAGAAAACCAAGATG
TATTGCAAACTTAAGAGACGAACAATTGCAAAATCATGGGTAAACAAGAAGGTTGTGGTTCATGC
TTCTTGACATTAGAAGATTTGGGTAATATGTCTATGGTGCAAAAGTAGTTAAGGAATCATTGAG
ATTAGCCTCCGTGCTACCATGGTTTCTTAGATTGGTTTTACAAGATTCTTTGATCCAAGGTTACA
AAATTA AAAAGGGTTGGAACGTCAACATAGACGTAAGATCTTTACATTCAGATCCATCCTTGAT
AATGACCCAACAAAGTTTAACCTAGTAGATTTCGATGACGAAGCTAAACCTTACTCATTTTTGGC
ATTCGGTATGGGTGGTAGACAATGTTTGGGTATGAACATGGCAAAGGCCATGATGTTGGTTTTCT
TGCACAGATTGGTCACCTCATTGAGATGGAAGGTTATAGATTCCGACTCTTCAATCGAAAAATGG
GCTTTGTTCTCTAAGTTGAAGTCAGGTTGCCCTATCGTAGTTACCCACATCGGTTTCCTAA

CYP4149

ATGGATTTCTACTGGATCTGTGTTCTTCTGCTTTGCTTCGCATGGTTTTTCATTTTATCCCTTCA
CTCGAGAACAAACAGCAGCGGCACCTTCCAACTTCTCCCGGACCGAAACCCTTGCCGATCATCG
GAAGCCTTTTGGCTCTCGGCCACGAGCCCCACAAGTCTTTGGCTAATCTCGCTAAATCTCATGGC
CCTCTTATGACCTTAAAGCTCGGCCAAATCACCACCGTCGTAGTTTCTCCGCTGCCATGGCTAA
GCAAGTTCTCAAACGCACGACAGTTTCTGTCCAGCAGGACCGTTCCAGACGCAATGACCTCTC
ACAACCACGATGCTTTCGCACTCCCATGGATTCCGGTTTCACCCCTCTGGCGAAACCTTCGACGA
ATATGCAACAACAGTTGTTTGCCGGCAAGATTCTCGACGCCAACGAGAATCTCCGGCGAACCAA
AGTGGCCGAGCTCGTATCCGATATCTCGAGAAGTGCATTGAAAGGTGAGATGGTGGATTTTGGAA
ACGTGGTGTTCGTCACTTCGCTCAATCTGCTTTCCAATACGATTTTCTCGGTGGATTTCTTCGAC
CCAAATTCTGAAATTGGGAAAGAGTTTCAAGGCACGCAGTACGAGGCCTCATGGAAGAAGCTGCCAA
ACCAAATTTGGGGGATTATTTCCCTCTGCTGAAGAAGATAGATCTTCAAGGAATAAAGAGGAGAC
AGACCACTTACTTCGATCGGGTTTTTAATGTTTTTGGAGCACATGATCGACCAGCGTCTTCAGCAG
CAGAAGACGACGTCTGGTTCTACCTCCAACAACAACGACTTACTGCACTACCTTCTCAACCT
CAGCAACGAAAATAGCGACATGAAATTGGGGAACTTGAGCTGAAACACTTCTTATTGGTGCTAT
TCGTGCTGGGACTGAAACGAGTTCTGCAACACTGCAATGGGCAATGGCAGAACTACTAAGAAAC
CCAGAAAAGTTAGCAAAAGCTCAAGCGGAGACCAGGCGGGTGATTGGGAAAGGGAACCCAATTGA
AGAATCAGACATTTGAGGCTGCCTTATCTGCAAGCAGTGGTGAAAGAACTTTGAGATTGCACA
CACCAGCGCCATTTCTACTGCCGCGCAAAGCACTACAGGACGTGGAAATTGCAGGTTTCACAGTC
CCAAAGGACGCTCAGGTACTGGTAAATTTATGGGCTATGAGCAGAGATTCAAGCATCTGGGAGAA
CCCAGAGTGGTTCGAGCCAGAAAGGTTTTTGGAGTCGGAGCTGGACGTTAGAGGGAGAGATTTTG
AGCTGATCCCGTTGCGCGGTGGGCGGAGGATTTGCCCGGTCTGCCGTTGGCGATGAGAATGTTG
CATTTGATTTTGGGTTCTCTCATCCACTTCTTTGATTGGAAGCTTGAAGATGGGTGTCGGCCGGA

FIGURE 15 (CONT.)

AGACGTGAAAATGGACGAAAAGCTTGGCCTCACTCTGGAGTTGGCTTTTCCCCTCACAGCCTTGC
CTGTCTTGTCTAA

CYP4491

ATGTCTCTCGGGTGGTCCAACTCCTTTGAATGTTATCGGTATCTTATTACAATCAGAATCCTC
CAGAGCCTGCAACTCAGACGAAAACCTCAAGAATTTTGAGAGATTTTCGTAACAAGAGAAGTTAACG
CTTTCTTATGGTTGTCCTTGATCACTATCACAGCAGTTTGTATCAGTAAAGTTGTCGGTTTGT
AGATTGTGGTCTAAGGCAAAGCAATTGAGAGGTCCACCTTGTCCATCATTCTACGGTCATTCTAA
GATCATCTCAAGACAAAATTTGACTGATTTGTTATATGACTCCCACAAAAGTACGGTCCAGTAG
TTAAATTGTGGTTAGGTCCTATGCAATTGTTAGTCTCCGTAAAGGAACCAAGTTTGTGAAGGAA
ATATTGGTTAAAGCTGAGGATAAGTTGCCTTTAACAGGTAGAGCCTTTAGATTGGCTTTCGGTAG
ATCTTCATTATTTGCATCCAGTTTCGAAAAGGTTCAAACAGAGACAAAGATTGGCCGAAAAGT
TGAATAAGATCGCATTCCAAAGAGCCAACATCATTCCAGAAAAGGCCGTAGCTTGTTCATGGGT
AGAGTTCAAGATTTGATGATAGAAGAATCTGTGCGACTGTAATAAGGTTTCTCAACATTTGGCTTT
TACTTTGTTAGGTTGCACATTGTTTGGTGACGCCTTCTTAGGTTGGTCTAAGGCTACAATCTATG
AAGAATTGTTGATGATGATCGCTAAGGACGCATCCTTTGGGCTAGTTATAGAGTTACCCCAATC
TGGAAGCAAGGTTTCTGGAGATACCAAAGATTGTGTATGAAGTTGAAGTGCTTGAAGTCAAGATAT
CGTTCAACAATACAGAAAGCATTACAAGTTGTTTTCTCACTCACAAAACCAAACTTACACAACG
AAACCAAGTCAACTGGTGTGTAAGTCGCTTTTGATATTCCACCTTGTCTGCTGCAGACGTTAGA
AATTCTTGCTTTTTCTACGGTTTGAACGATCATGTTAACCACGAAGAACCTTGTGGTAATAT
TATGGGTGTCATGTTTTCACGGTTGCTTGACTACAACCTCTTGATCGCATCAATCTTGGAAGAT
TGGCCACTAACCAGAAATCCAAGAAAAGATTAATTCTGAATTGAACTAGTTCAAAGGGTCCA
GTCAAGGATCATAGAAAGAATGTTGACAACATGCCTTTGTTATTGGCAACAATCTATGAATCAGC
TAGATTATTGCCAGCAGGTCTTTATTGCAAAGATGTCTTTGAAGCAAGATTTGGTTTGA
CAGGTATCACCATTCCAGCTGGTACCTTGGTCGTAGTTCTATTAAATGGTTCAAATGGATGAC
TCTTCATGGGGTTCAGATGCCAATGAGTTAATCCATACAGATTCTTGTCCATGGCTTGTATGG
TATTGACATGATACAAAGAACCCCTTTAGCTGGTGAAAACATTGGTGACCAAGGTGAAGGTTTCA
TTGTCTTGAATGACCAATTGGTAACGTAGGTTTCTTACCTTTTGGTTTGGTGCAAGAGCCTGC
GTTGGTCAAAAGTTTATAATCCAAGGTGTGCTACTTTGTTTCGCAAGTTTGTGGCCCATTA
AATTAAATTGCAATCCGAGAGTAAGAATGATTCTAAACCATCCAGTAACACCTCTGCCAGTCAA
TCGTCCCAAACCTCAAAATCGTATTCTGTAAGAAGAACTCATAA

CYP5491

ATGTGGACTGTCGTGCTCGGTTTGGCGACGCTGTTTGTGCGCTACTACATCCATTGGATTAAACAA
ATGGAGAGATTCCAAGTTCAACGGAGTTCTGCCGCCGGGCACCATGGGTTTGCCGCTCATCGGAG
AGACGATTCAACTGAGTCGACCCAGTGACTCCCTCGACGTTACCCCTTTCATCCAGAAAAAGTT
GAAAGATACGGGCCGATCTTCAAACATGTCTGGCCGGAAGGCCGGTGGTGGTGTGCGCGGACGC
AGAGTTCAACAACFACATAATGCTGCAGGAAGGAAGAGCAGTGGAATGTGGTATTGGATACGC
TCTCCAAATTTTTCGGCTCGACACCGAGTGGCTCAAAGCTCTGGGCCTCATCCACAAGTACATC
AGAAGCATTACTCTCAATCACTTCGGCGCCGAGGCCCTGCGGGAGAGATTTCTTCTTTTATTGA
AGCATCCTCCATGGAAGCCCTTCACTCCTGGTCTACTCAACCTAGCGTCGAAGTCAAAAATGCCT
CCGCTCTCATGGTTTTTAGGACCTCGGTGAATAAGATGTTTCGGTGAGGATGCGAAGAAGCTATCG
GGAAATATCCCTGGGAAGTTCACGAAGCTTCTAGGAGGATTTCTCAGTTTACCCTGAATTTTCC
CGGCACCACCTACCACAAATGCTTGAAGGATATGAAGGAAATCCAGAAGAAGCTAAGAGAGGTTG
TAGACGATAGATTGGCTAATGTGGGCCCTGATGTGGAAGATTTCTTGGGGCAAGCCCTTAAAGAT
AAGGAATCAGAGAAGTTCATTTAGAGGAGTTCATCATCCAACTGTTGTTTTCTATCAGTTTGC
TAGCTTTGAGTCCATCTCCACCACTCTTACTTTGATTCTCAAGCTCCTTGATGAACACCCAGAAG
TAGTGAAAGAGTTGGAAGCTGAACACGAGGCGATTGAAAAGCTAGAGCAGATCCAGATGGACCA
ATTACTTGGGAAGAATACAAATCCATGACTTTTACATTACAAGTCATCAATGAAACCCCTAAGGTT
GGGGAGTGTACACCTGCCTTGTGAGGAAAACAGTTAAAGATCTTCAAGTAAAAGGATACATAA
TCCCGGAAGGATGGACAATAATGCTTGTACCGCTTCACGTACAGAGACCCAAAAGTCTATAAG
GACCTCATATCTTCAATCCATGGCGTTGGAAGGACTTGGAAGTCAATTACCATCCAAAAGAACTT

FIGURE 15 (CONT.)

CATGCCTTTTGGGGGAGGCTTAAGGCATTGTGCTGGTGCTGAGTACTCTAAAGTCTACTTGTGCA
CCTTCTTGCACATCCTCTGTACCAAATACCGATGGACCAAACCTGGGGGAGGAAGGATTGCAAGA
GCTCATATATTGAGTTTTGAAGATGGGTACATGTGAAGTTCACACCCAAGGAATGA

CYP6479

ATGAAGATGAAGATGGAATCCATGCGCACCTCCCTGGATATCTCCGACCATGACATACTTCCAAG
GGTTTATCCTCATGTTACCTATGGATCAACAAATATGGGAAAACTTCATTTCAGTGGAAATGGCA
ACGTAGCTCAGTTGATTGTTTTCGGATCCTGACACGATCAAGGAGATACTCCAAAACCGAGAACAA
GCTGTTCCCAAAATAGATCTCAGCGGAGATGCACGGAGGATATTCGGGAATGGGCTTTCGACTTC
TGACGGTGAAAAATGGGCTAAGGCTCGAAGAATCGCTGATTACGCTTTCACGGGGATCTCCTAA
GAAATATGGGGCCAACCATGGTTTCCTGTGCTGAGGCAATGGTGGAAGAGTGAAGCATCATCAA
GGCAAAGAGCTTGATTTGTTTGAAGAGTTTAAAGGTGCTCACTTCAGATATCATTCACATACAGC
CTTTGGAAGCAGTTATTTGGAAGGGAAAGTTATTTTTTCAGACTCTAAGTAAGCTGAGCATGATAT
TATTTAAGAATCAGTTCAAACGAAGGATTCTGTATCAGCAAGTTCTTCAGATCAAAGGATGCG
AGGGAGGGAGAGGAGCTGGAAAGAAGGTTGAAAAATTCCATAATTTCAATAATGGAAGAGAGA
AGAGAAGGTGATAAGTGGTGAAGCAGATAACTATGGTAATGATTTTCTTGATTACTTTTGAAGG
CAAAGAATGAGCCTGACCAGAGGCAGAGGATTTCTGTTGATGATGTAGTGGATGAATGCAAAACA
GTTTACTTTCGCTGGGCAAGAACTACAAGTGTGTTTGCTTGCTTGGACCGCTTCTTTTAGCAAC
TCATGAGCATTGGCAAGAAGAAGCAAGAAGGAAGTGTGAATATGTTTGGCAACAAGAATCCAA
CTTTAGAAGGCATCACAAAATTAAAGATTATGAGCATGATCATCAAGGAATCTCTAAGATTATAT
CCTCCAGCCCCGCCCATGTCAAGGAAGGTTAAAAAGGAAGTCAGATTGGGGAAAGCTGGTTCTCCC
CCCCAACATTCAAGTAAGCATCTCAACTATTGCAGTTCATCATGATACTGCAATATGGGGTGAAG
ATGCCCATGTATTCAAACCAGAAAGATTTCTGAAGGAACAGCTAAAGATATCCCATCAGCTGCA
TACATCCCATTTGGCTTTGGTCCTCGAACTGCATCGGCAATATCTTGGCCATCAACGAACTAA
GATTGCACTGTGATGATTCTACAACGATTTTCTTTCACCATCTCCCCGGCTACGTCCACGCAC
CTTTCAGTTTCTCACTATCTGCCCCAACACGGGGTTCAAGTAAAGCTTCAGTCCCTATTAAGT
GAAAGGTGA

CYP7604

ATGGAAGCTGAATTTGGTGCCGGTGCTACTATGGTATTATCCGTTGTGCGCAATCGTCTTCTTTTT
CACATTTTTTACACTTGTTTGAATCTTTCTTTTGAAGCCAGATAGATTGAGATCTAAGTTGAGAA
AGCAAGGTATTGGTGGTCCATCTCCTTCATTTTTGTTGGGTAATTTGTCAGAAATTAAATCCATC
AGAGCTTTGTCTTCACAAGCTAAGAACGCAGAAGATGCCTCTGCTGGTGGTGGTGGTGGTCCGC
CAGTATAGCTCATGGTTGGACTTCAAATTTGTTTCTCACTTAGAACAATGGAGAAACAGATATG
GTCCAATTTTTCGTATACTCCAGTGGTACAATCCAAATCTTGTGTATCACAGAAATGGAAACCGTT
AAGGAAATCTCTTGTCAACCTCCTTGAGTTTAGGTAAACCTGCTCATTGTCTAAGGATAGAGG
TCCATTGTTAGGTTTGGGTATCTTAGCCTCTTCAGGTCCTATTTGGGTTACCAAAGAAAGATCA
TCGCTCCACAATTGTATTTGGATAAAGTAAAGGGTATGACCTCATTGATGGTTGAAAGTGCAAAT
TCTATGTTAAGATCCTGGGAACTAAAGTTGAAAATCATGGTGGTCAAGCCGAAATTAACGTGCA
TGGTGACTTGAGAGCATTAAGTGCCGATATCATTTCTAAGGCTTGCTTTGGTTCAAACATTTCCG
AAGGTGAAGAAATTTTCTTGAAGTTGAGAGCATTGCAAGTTGTGATGAGTAAGGGTTCTATTGGT
ATACCTGGTTTTAGATACATACCACTAAAAATAACAGAGAAATGTGGAAGTTGGAAAAGGAAAT
CGAATCAATGATCTTGAAGGTTGCCAACGAAAGAACACAACATTCCAGTCACGAACAAGATTTGT
TGCAAATGATTTTGAAGGTGCAAAGTCTTGGGTGAAGACAATAAGAGTATGAACATATCAAGA
GACAAGTTTATGTTGACAAATTGTAAGAACATCTATTTGCTGGTCATGAAACTACAGCTATAAC
CGCATCTTGGTGCTTGATGTTGTTAGCTGCACACCCTGATTGGCAAGCAAGAGCCAGATCTGAAG
TTTTACAATGTTGCGATGACAGACCAATCGATGCAGACACAGTCAAAAATATGAAGACCTTGACT
ATGGTAATTCAGAAACTTTGAGATTGTACCCACCTGCTGTATTGCTTACAAGACAAGCATTAGA
AGATATCAGATTCAAAACATCACAATACCAAAGGGTATGAACTTTCATATACCAATCCCTATGT
TGCAACAAGACTTCCACTTATGGGGTCTGATGCTTGTTCATTTGACCCACAAAGATTCTCCAAT
GGTGTCTTAGGTGCATGCAAAAACCCACAAGCCTATATGCCTTTTGGTGTGGTCCAAAGAGTCTG
TGCCGGTCAACATTTTCGCTATGATCGAATTGAAAGTCATCGTATCATTTGGTTTTGTCCAGATTCTG

FIGURE 15 (CONT.)

INCORPORATED BY REFERENCE (RULE 20.6)

AATTTTCTTTGTACCTTCCTACAAGCATTACCAGCCTTCAGATTAGTTGTGCAACCAGAAAAC
GGTGTCAATATTGCATGTCAGAAAGTTGTGA

CYP8224

ATGGAAGTGGATATCAATATCTTCACCGTCTTTTCCTTCGTATTATGCACAGTCTTCCTCTTCTT
TCTATCCTTCTTGATCCTCCTCCTCCGAACGCTCGCCGGAAAATCCATAACGAGCTCCGAGT
ACACGCCAGTGTACGGCACCGTCTACGGTCAGGCTTTCTATTTCAACAACCTGTACGATCATCTA
ACGGAGGTGGCCAAGAGACATCGAACCTTCCGGCTGCTTGCGCCGGCATAACAGCGAGATATACAC
GACCGATCCGAGAAACATCGAGCATATGTTGAAGACGAAATTCGATAAGTATTCGAAAGGAAGCA
AGGATCAAGAAATCGTTGGGGATCTGTTTGGAGAGGGGATATTGTCAGTCGATGGAGATAAGTGG
AAGCAGCAGAGGAAGCTGGCTAGCTATGAATTCTCGACGAGGATTCTTAGGGATTTTAGCTGCTC
GGTTTTTCAGACGAAAGTGTCTAACTTGTGGAGTTGTTTCGGAGTTTTCAGCATGGGTCCGG
TTTTTGATATCCAGGATTTGCTAATGCGGTGCGCTTTGGACTCCATTTTCAAAGTGGGGTTCCGG
GTTGATTTGAATTGCTTGGAGGAATCAAGCAAAGAAGGGAGCGATTTTCATGAAAGCCTTCGATGA
TTCTAGCGCTCAGATTTTTTGGCGCTATATCGATCCCTTCTGGAAATTGAAGAGATTGCTTAACA
TCGGTTCGGAAGCTTCGTTTAGGAACAACATAAAAACCATAGATGCTTTTGTGCACCAGTTGATC
AGAGACAAGAGAAAATTGCTTCAGCAACCGAATCACAAGAATGACAAAGAGGACATACTTTGGAG
GTTTCTGATGGAAAGTGAGAAGGATCCAACAAGAATGAATGATCAATATCTAAGGGATATAGTCC
TCAATTTTCATGTTGGCTGGCAAAGATTCAAGTGGAGGAACTCTGTCCTGTTCTTCTACATGCTA
TGCAAGAACCCTTTAATACAGGAAAAAGTTGCAGAAGAAGTGAGGCAAATTGTTGCGTTTGAAGG
GGAAGAAGTTGACATCAATTTGTTTACATAAAAACCTTAAGTATTGAGCTCTTGACAAAATGCATT
ATCTTCATGCAGCATTGACCGAGACTCTGAGGCTATATCCTGCAGTCCCTTTGGATGGAAGGACT
GCAGAAATAGATGACATTCTTCCTGATGGCTATAAACTAAGAAAAGGGGATGGAGTATACTACAT
GGCCTATTCCATGGGCAGGATGTCCTCCCTTTGGGGAGAAGATGCTGAAGATTTTAAACCCGAAA
GATGGCTTGAAAGTGGAACTTTTCAACCCGAATCACCTTTCAAATTCATCGCTTTTCATGCGGGT
CCTCGAATGTGTTTGGGAAAAGAGTTTGCTTATCGACAAATGAAGATAGTATCTGCTGCTTTGCT
TCAATTTTTTCGATTCAAAGTAGCTGATACAACGAGGAATGTGACTTATAGGATCATGCTTACCC
TTCACATTGATGGAGGTCTCCCTCTTCTTGCAATTCGAGAAATTAGAAAATTTACCTAA

CYP8728

TTGGATAGTGGAGTTAAAAGAGTGAAACGGCTAGTTGAAGAGAAACGGCGAGCAGAATTGTCTGC
CCGGATTGCCCTGGAGAATTACAGTCGAAAAGCTGGTTTTCCATCTGTATTGAGGAGTGGCT
TATCAAAGATGGGTGTTCCAGTGAGATTCTGGACATATTATTTGGTTTCGTTGATGCTCAAGAA
GAATATCCCAAGATTCCCGAAGCAAAAGGATCAGTAAATGCAATTCGTAGTGAGGCCTTCTTCAT
ACCTCTCTATGAGCTTTATCTCACATATGGTGGAATATTTAGGTTGACTTTTGGGCCAAAGTCAT
TCTTGATAGTTTCTGATCCTTCCATTGCTAAACATATACTGAAGGATAATCCGAGGAATTATTCT
AAGGGTATCTTAGCTGAAATTCTAGAGTTTGTTCATGGGGAAGGGACTTATACCAGCTGACGAGAA
GATATGGCGTGTACGAAGGCGGGCTATAGTCCCATCTTTGCATCTGAAGTATGTAGGTGCTATGA
TTAATCTTTTTTGAGAAGCTGCAGATAGGCTTTGCAAGAAGCTAGATGCTGCAGCATCTGATGGG
GTTGATGTGGAATGGAGTCCCTGTTCTCCCGTTTGACTTTAGATATCATTGGCAAGGCAGTTTT
TAACTATGACTTTGATTCACTTACAAATGACACTGGCATAGTTGAGGCTGTTTACACTGTGCTAA
GAGAAGCAGAGGATCGCAGTGTTGCACCAATTCCAGTATGGGAAATTCCAATTTGGAAGGATATT
TCACCACGGCAAAAAAGGTCTCTAAAGCCCTCAAATTGATCAACGACACCCTCGATCAACTAAT
TGCTATATGCAAGAGGATGGTTGATGAGGAGGAGCTGCAGTTTCATGAGGAATACATGAATGAGC
AAGATCCAAGCATCCTTCATTTCTTTTGGCATCAGGAGATGATGTTTCAAGCAAGCAGCTTCGT
GATGACTTGATGACTATGCTTATAGCTGGGCATGAAACATCTGCTGCAGTTTAAACATGGACCTT
TTATCTTCTTTTCCAAGGAGCCGAGGATCATGTCCAAGCTCCAGGAGGAGGTTGATTTCAGTCCCTG
GGGATCGGTTTTCCAACATTGAAGATATGAAGAACCCTCAAATATGCCACACGAATAATTAACGAA
TCCTTGAGGCTTTACCCACAGCCACCAGTTTTAAATACGTCGATCTCTTGACAATGATATGCTCGG
GAAGTACCCCATTAATAAGGGTGAGGACATATTCAATTTCTGTTTGGAACTTGATCGCAGTCCAA
AACTCTGGGATGATGCGGATAAATTTAATCCTGAAAGGTGGCCTCTGGATGGACCAATCCAAT
GAGACAAATCAAAATTTAGATATTTACCTTTTGGTGGCGGACCACGGAATGTGTGGGAGACAT

FIGURE 15 (CONT.)

CYP10969

GTGGGGCCGTCGTCTGTTGAAGCTCCTCAGCGGACGATTTTGAAGCCTGAACAGAGGGAGCTACC
GTTGAGGAAGATTCCCGGGGACTATGGGCGCGCGTTGTTGGGTCCGATTAAGGACCGACAAGACT
ATTTTTACAATCAGGGGAGGGAGGAGTTTCTGAGATCACGCATGAACAGGTACGAATCAACTGTG
TACAGAACTAATATGCCACCAGGTCCCTTTATCTCCTCCGATTCTCGTGTATCGTTTTACTCGA
CGGCAAGAGCTTCCCTGTACTCTTCGACGTTTCTAAAGTTCTGAAACAAGACGTCTTCACCGGAA
CTTATATGCCCTTAACGGAGCTCACTGGCGGCTACCGAGTTCTTTCTTATCTCGACCCCTCCGAG
CCCGATCACGAGAAGCTTAAACAGTTCCTCTTCTACCTCCTCAAGTACCGTCGCGACAAGATTCT
GCCGGAGTTTCACTCTACCTTTTCGGAGCTGTTTGAGACTCTGGAGAAGGAGGTGGCTGCCGCCG
GTAGAGCAGATTATAATGATCCCGGTGAACAGGCGGCGTTTAACTTCTTGGCTCGGTCTCTGTTC
GGCGCCAACCCGCCCGACACCAAACTGGGAAACGACGCTCCGAGTTTAAATATCCAAATGGGTGCT
GTTCCAGCTGGGTCCGGTTCTCACTCTTGGTCTTCCCAAGCCTGTCGAGGAGCTTCTCCTGCGAA
CCGTCCGGCTGCCACCGGCGCTTGTGAAATCGGATTACCAGCGGCTGTACGATTTCTTTTACGAG
GCGTCGGAGGCTGTGTTTGGGAGGCGGATAGATTGGGCATTGCGAGAGAGGAAGCGTGTACAA
CTTGGTCTTCGCCACGTGCTTCAATTCCTTCGGAGGGATGAAGATCCTCTTCCCAATATGATAA
AATGGATCGGACGTGCCGGAGTGAATCTCCATACGGAGCTCGCACGGGAGATAAGATCCGCCGTC
AAAGCCCACGGCGGCAAGATCACGATGGCGGCTATGGAACAGATGCCGCTGATGAAGTCCGTAGT
GTACGAAACGCTCAGAATCGAACCCCGGTTCTGCGCAATACGGGCGAGCGAAGGAGGACCTGG
TGATCGAGAGCCACGACGCCGCTTTCGAGATCAAAGAAGGGGAAATGTTGTGTGGGTACCAGCCA
TTCGCCACTAGAGATCCGAAAATATTCGAGAGATCCGAAGAATTCGTACCGGATCGGTTACCCGG
CGACGGCGAGGAGTTGCTGAAGCACGTGCTCTGGTCAAACGGACCGGAGACTCAATCCCAACCG
TTAAAGACAAGCAGTGGCTGGCAAAGACTTCATAGTCTTCGTCTCCCGCCTCCTCGTCTCGTAA
CTCTTCCTCCGATACGACTCCTTCGACATTGAAGTCGCAGCTTCGCCGTTGGGCGCGCGGTCAC
CATAACTTCCCTGAAGAAGGCAAGCTTTTAA

FIGURE 15 (CONT.)

FIGURE 16

UGT73C3

MATEKTHQFHPSLHFVLPFMAQQGHMIPMVDIARLLAQRGVITITVTPHNAARFKNVLRNRAIESGLAINILHVKFPYQEFGLP
 EGKENIDSLDSTELMVPFFKAVNLLDPVMKLMEEKPRPSCSLISDWCLPYTSIIAKNFNIPKIVFHGMGCFNLLCMHVLRRN
 LEILENVKSDEEYFLVPSFPDRVEFTKLQLPVKANASGDWKEIMDEMVKAEYTSYGVIVNTFQELEPPYVKDYKEAMDGKV
 WSIGPVSLCNKAGADKAERGSKAIDQDECLQWLDKSEGSVLVYVCLGSICNPLSQLKELGLGLEESRRSFIWVIRGSEKYK
 ELFEWMLESGFEERIKERGLLIKGWAPQVLLSHPSVGGFLTHCGWNSTLEGITSGIPLITWPLFGDQFCNQKLVVQVLKAGV
 SAGVEEVMKWGEEDKIGVLVDKEGVKKAVEELMGDSDDAKERRRRVKELGELAHKAVEKGGSSHNSNITLLQDIMQLAQF
 KN

UGT73C5

MVSETTKSSPLHFVLPFMAQQGHMIPMVDIARLLAQRGVITITVTPHNAARFKNVLRNRAIESGLPINLVQVKFPYLEAGLQEG
 QENIDSLDTMERMIPFFKAVNFLEEPVQKLEEMNPRPSCSLISDFCLPYTSKIAKKFNIPKILFHGMGCFCLCMHVLKKNREIL
 DNLKSDKELFTVPDFPDRVEFTRTQVPVETYPVAGDWKDFDGMVEANETSYGVIVNSFQELEPAYAKDYKEVRSKGAWTI
 GPVSLCNKVGAADKAERGNKSDIDQDECLKWLDKKHGSVLVYVCLGSICNPLSQLKELGLGLEESQRPFIWVIRGWKEYKEL
 VEWFSSEGFEDRIQDRGLLIKGWSPQMLILSHPSVGGFLTHCGWNSTLEGITAGLPLLTWPLFADQFCNEKLVEVLKAGVR
 SGVEQPMKWGEEKIGVLVDKEGVKKAVEELMGESDDAKERRRRRAKELGDSAHKAVEEGGSSHNSISFLLQDIMELAEPPN

UGT73C6

MAFEKNNEPPLHFVLPFMAQQGHMIPMVDIARLLAQRGVITITVTPHNAARFKNVLRNRAIESGLPINLVQVKFPYQEAGLQ
 EGQENMDLLTTMEQITSFFKAVNLLKEPVQNLIEEMSPRPSCSLISDMCLSYTSEIAKKFKIPKILFHGMGCFCLLCVNVLRKNR

FIGURE 16 - CONTINUED

EILDNLKSDKEYFIVPFPDRVEFTRPQVPVETVYPAGWKEILEDMEADKTSYGIVVNSFQELEPAYAKDFKEARSGKAWTI
 GPVSLCNKVGVDKAERGNKSDIDQDECLEWLDSEKPGSVLYVCLGSICNPLPSQLLELGLGLEESQRPFIWVIRGWKEYKEL
 VEWFSSEGFEDRIQDRGLLIKGWSPQMLILSHPSVGGFLTHCGWNSTILEGITAGLPMLTWPLFADQFCNEKL VVQILKVGVS
 AEVKEVMKWGEEBKIGVLVDKEGVKKA VEELMGESDDAKERRRRRAKELGESAHKAVEEGSSHNSITFLLLQDIMQLAQSN
 N

UGT73E1

MSPKMOVAPPTNLHFVLFPLMAQGHVPMVVDIARILAQRGATVTITTPYHANRVRPVISRAIATNLKIQLELQLRSTEAGLPE
 GCESEFDQLPSFEYWKNISTAIDLLQQPAEDLLRELSPPPDCIISDFLPWTTTDVARRLNIPRLVFNGPGCFYLLCHVVAITSNILG
 ENEPVSSNTERVVLPGLPDRIEVTKLQIVGSSRPANVDEMGSWLRAVEAEKASFGIVVNTFEELEPEYVEEYKTVKDKKMW
 IGPVSLCNKTGPDIAERGNKAAITEHNCKLWDERKLGSLYVCLGSLARISAAQAIELGLGLESINRPFIWCVRNETDELKT
 WFLDGFEEVRDRGLIVHGWAPQVLILSHPTIGGFLTHCGWNSTIESITAGVPMITWPPFADQFLNEAFIVEVLKIGVRIGVER
 ACLFGEEDKVGVLVKKEDVKKA VECLMDEDEDEDQRRKRVIELAKMAKIAMAEAGSSYENVSSLRDVTETVTRAPH

UGT85C2

MDAMATTEKKPHVIFPFAQSHIKAMLKLAQLLHHKGLQITFVNTDFIHNQFLESSGPHCLDGA PGFRFETIPDGVSHSPEASI
 PIRESLRSJETNFLDRFIDLVTKLDPPTCISDGFLSVFTIDA AKKLGIPVMMYWTLAACGFMGFYHHSLIEKGFAPLKDASY
 LTNGYLDTVIDWVPGMEGIRLKDFPLDWSTDNDKVLMTTEAPQRSHKVSHHIFHTFDELEPSIHKTL SLRYNHHYTIGPLQL
 LLDQIPEEKKTGITSLHGYSLVKEEPECFQWLQSKEPNSVYVNFGSTTVMSLEDMTEFGWGLANSNHYFLWIIRSNLVIGE
 NAVLPPELEEHKKRGFIASWCSEKVLKHPSVGGFLTHCGWGSTIESLSAGVPMICWPYSWDQLTNCRYICKEWEEVGLEMG
 TKVKRDEVKRLVQELMGEKGHMKMRNKA KDWKEKARIAIAPNGSSSLNIDKMKVEITVLARN

FIGURE 17

UGT98
 ATGGATGCCAGCGAGGTACACACCACCAATTTTGATGCTTCCATGGGTGGCTACGGCCATCTCTTGCCCTTCCCTCGAGCTGGCCAAAAGCCTCTC
 CAGGAGGAAATATATCCACATCTACTTCTGTTCAACGTCTGTTAGCCTCGACGCCATTAAACCAAGCTTCCCTCTCTATCTCTTCTGATGATTCCA
 TCCAACTTGTTGGAATCTCGTCTCCCTCTCTCTCTGAGTTACCTCTCATCTTACACAAACCAACGGCTTCCCTCTCACTCATGCCGCTCTCCAC
 CAAGCCTTCGTATGCGCCGCCAACACTTTCAGGTCAATTTACAAACACTTSCCCCGCATCTCTCTCATTTATGACATTTCTCAACCTTGGGCTCCTCA
 AGTGGCTTCATCCCTCAACATTCACGCCATCAACTTCAGTACTACCGGAGCTTCAATGCTTCTCGAACGCTTCACTTCACTACCCAAAGTTCTA
 AATCCCAATCTCAGAGTTGTTCTTTCACAAATCACTGGAGAGCCATGTACACCCCGCGATGGGCTCTTACAGAAGAAGGCCACAAAATTAAGA
 AACCTTGGCAATTGCTTGCAATCTTCTGCGGTAGTTTGGTCAATAGTTTCAGAGAGCTTGAGACGAAATATATCGATTATCTCTCTGTTCTCTT
 GAACAAGAAAGTTGTTCCGGTCGGTCTTCTGTTTACGAAACCGAATCAAGAAGGGAAGATGAAGTTATTCAGCATCAAAAATGGCTTGACAAAA
 AGGAACCGTCTCAACCGTCTTCCGTTTCAATTTGGAAACCGAATCTTCCGTCAAAGGAAGAAATGGAAGAGATAGCGTATGGTTAGAGCTGAGCGAG
 GTTAATTCATCTGGTCCCTTAGATTTCTCAAGGAGACAGCACCACTTGAAGACGCTTCCGAGGGCTTGTGAGTCACTGTGGATGGAACCTCGATGATGG
 GCGGATGGTGGTGAAGGTTGGGCTCCTCAGGCGAAGATACCTGAAGCATTTGAGCACAGCCCTTAAACGCCGACTCTTGAAGAAGCTGGCGTCGGCGTGGAA
 AGGGCATGATGTTTGGCGTACCCATAATAGCGGTCCCGATGCATCTGGACAGCCCTTAAACGCCGACTCTTGAAGAAGCTGGCGTCGGCGTGGAA
 GCCAAGCGAGGTTCCGACGGCAAAATTCAAAGAGAAGAAAGTTGCAAAAGTCGATCAAGAAGCTGGTGAATGAGAAAACCAAGGAAGACGTGAGGAAGAA
 AGCAAGAGAAATGGGTGAGATTTTGAGGAGTAAAGGAGATGAGAAAATGATGAGTTGGTGGCTGAAATTTCTCTTTTGGCGCAAAAAGGCTCCATGTT
 CAATTAA

UGT1495
 ATGCTTCCATGGCTGGCTCACGGCCATGTCTCCCCTTTCTTCGAGCTCGCCCAAGTTGCTCGCCGCTAGAAAACCTCCACATATTTCTGCTCCACCGC
 CGTAAACCTCCGTCGGTCGAACCAAACTCTCTCAGAAGCTCTCTCCCAACGTGGAGCTGGTGGAGCTCAACCTACCGCCCTCGCCGGAGCTCCCTC
 CGCACCGCCACACACCGCCGGCTTCCACCGCACTCATGTTCTCGCTCAAGCGAGCTTTCGACATGGCCGCTCCCGCTTCGCCGCCCATCCTCCGC
 GACCTGAACCCGGACTTGCTCATCTACGACTTCTCGACCGCTGGCGGGCGGAGGCTCTGTCCGGCGGATATTCGGCCGCTGATGTTCAAAAAGCAC
 GGGTGGCTCATGGCGGCCATGGTCGCGTACGAGCTGACGTTTCCGAACCTGTGATTTTCTCGCTTTTCCCTGAGATTCGTCTCTCCGAGTGGGAGA
 TTAAACAGCTGAAGAACTTGTTCATGTTCTGTGAATGATGCGAAAGACAAAGCAAGGATTAAGGATGTTATGAGAGATCTTGGGCAATGATTTTG
 GTGAAATCTTTCAGAGAAATCGAAGGCAATATATTGATTTTCTCTCTACTCTGCTGGCAAGAGAGTTGTCCAGTTGGTCCACTTGTTCACAAAC
 AGAAGACGACGTCGTATCAGGAAGTTTGACGAATGGCTAAATGGAAAGATAGATCGTCTTCCATACTCGTGTCTTTCGGAAGCGAGTTCTACCTGT
 CCAGAGAAGACATGGAAGAGATCGCGCATGGCTTAGAGCTGAGCCAGGTGAACCTCATATGGTCTGTCAGGTTTCCGGCGGGAGGAGAGAAACACG
 ACAAGGTGGAAGAACTGCCAAAAGGTTTCTAGAGAGAGTTAGAGAGAGAGGATGGTGGAGGGCTGGCGCGCCGAGGCTCAGATCTTGAA
 ACATCCAAGCGTCGGGGATTCTTCAGCCACTGCCGGTGGAGTCCGCTCGTGGAGAGCATGAATTCGGCGTTCGATCATCGCCATGCCGATGCACC
 TCGACCAAGCGCTGAATTTCCCGGTGGTCGAGCGGCTCGGCGTAGTGGTGGAGAGAGACGGCCGCTCCGGGGAGAGGTGGAGAGAGTTGTC
 AGAGAGGTGGTGGAGAAAAGTGGAGAGAGAGTGGAGAGAGTTTGCAGAGATCATGAAGAAGAAAAGACAAATGAAGAGATGGA

CGTAGTCGTGGAAGAGTTGGTGACGCTCTGCAGGAAGAAGAAGGAGGAGATTACAGAGTAATTATTTGGTGCAGAACCGCCATTGATGACCAATT
GTTCTGAAGTCGTGAAGATTGAAGATGCTGCAGCAGCCGACGAGGAGCCTCTTTGSCAAATAA

UGT1817

ATGGCTGTCACTTACAGCCTGCACATAGCAATGTACCCCTTGGTTTGGCTTTTGGCCACTTGACTCCATTCTCCAAGTCTCCAACAAGCTTGCCAAAGGA
AGGCCACAAAATCTCTTTCATCCCAACGAAACGCTAACCAATTGCAGCCCTTTCATCTCTTCCAGATCTCATTTGTCCTCCCATCACTG
TTCTCTCATGTTGATGTCCTCTCTTGGAGCTGAGACTACTGCTGATGTTTCTCACCTTACAGCTCAGTCTCATCATGACTGCTATGGATTGCACC
CAACCCGAAATCGAGTGTCTTCTCGAGACATAAAAACCTGATGCCATCTTCTCGATTTCGGCACTGGGTGCCAAAATTGGCATGTGGATTGGGCAT
TAAGTCGATTGATTACAGTGTCTGTTCTGCAGTATCAAAATGGTTATGTTTGGCCCTATTAAAGGAAAGTTTGTGGACAAGATTATTAACCTGAAGATG
ATTTTATGCAGCCATCTCCTGGCTACCCGAGTTCACCATCAATCTTCAAGCTCAATGAGGCTCGATATTTTGCACTCTCTGAGCCGCTGGAGGTTTGGC
AGTGATGTCCCTTCTTTAGTCGCCATCTTACTGCACTTAATGAATGCAATGCTTTAGCATTCAGGTCACTAGGGAGATTGAAGGCTCTTTATAGA
CTATCCAGAAAGTGAATTAATAAAGCCTGTGTCTTTCGGAGCAGTGGATCTACAACGCCCAACCCACAACCTGTAGAAGAAAGATGGGCAAAAATGGC
TATCAGGGTTCAACACCGACTCGGTGCTATATTTGTCATTTGGAAGTGAGTGACCTTAGCAAAAAGACCAATTCOAAGAACTGCTGTTGGGTTTGTGAG
CTTTCAATAATGCCATTCTTTGCTGCACTTAACCACTTTTGGTGTGACTCGGTTGAAGCAGCCTTGCCCTGAAGGTTTGAACAGAGAGTTTCAGGG
AAGAGGGTGGTCTATGGGGGATGGGTCCAACAGCAGCTCAATTTGGAGCACCCATCAATTTGGATGCTTTGTACACATTTGTGGATCAGGCTCCTTAT
CAGAGGCGTTAGTGAAGAGTGCAATTAGTGTGTGTACCTCGTATCGGTGACCACTTTTCCGAGCAAGAATGTTGAGCAATTAATTTGAAAGTTGGT
GTGGAGGTAGAGAAAGGAGAGGAGATGGATCTTTTACAAAGGAAAGTGTGTGGAAGGCACTGAAGACAGTGTGATGAAGAGAAATGAACACTGGGAA
AGAGTTCAGAGCGAACCCTGTCAGCAAGATATTGCTCGACGAAGATCTCGAGGAGTCTTATATCAACAATTTTCATCCACAGCCTGCATACTT
TGAATGCAATGA

UGT3494 (partial gene sequence)

ATGGCGGATCGGAAGAGAGCGTTGTGATGTTCCCGTTTCATGGGCGAGGGCCATATCATCCCTTTTCTAGCTTTGGCCCTCCAGATTGAGCACAGAAA
CAGAAACTACGCCATATACTTGGTAAATACTCTCTCAACGTTAAGAAATGAGATCTTCTCTCCCTCCAGATTGA

UGT5914

ATGGAAGCTAAGAACTGCAAAAAGGTTCTGTATGTTCCCATGGCTGGCGCATGGTCAATATCACCATTTGTAGAGCTGGCCAAAGAAGCTCACAGACAA
CAACTTCGCCGTTTCTATGTTCTTCCCTGCAAAATCTTCAAAACGTCAAGCCAAAACTCCCCCATCACTACTCTGATTCATTGAACCTCGTGAGC
TCAACCTTCCATCGTCGGAGCTTCCCTCATATGCACACCAATGGCTCCCTTTGCAATTAGTTCCACCTCGTTGACGCCCTTGGACATG
GCCGCTCCGCACTTCTCCGCCATTTTACAGGAACCTGAAATCCAGATTTTCTCATATTTCGACATCTTCCAACCTGGGGGCTGAAAATCGCTTCTCTT
CGCGCTTCTGCTATTTTGTGCTTATCGTTGGATCTGCTATAACCGCTTTAGGGGTTTCAATTTGTCCGGAGCTCCGGTACGGAAATCCCTTTCCCG
AGCTTACTAAATCATTTCAAGAAGGAGGACGACCGAAACCTCCAGGAGATTCCGGCAACGATAGAGGAAACCGGCTATTCAAAATGCTGTGTGGACCTG
GAACATTTCTCAGAGACTATTTTGGTGAACAGTTTACAGAGATAGAGGGCAATATATGGAATATCTCTCGGTCTTACTGAAGAAAGAGATCCTTCC
GATTGGTCTCTTGGTTTCAGAAAATTTGGCTCCGATGACGATGAATCGGGAATCTCCGGTGGCTTGACAAGAAAGAAACCGAATTCAACTGTGTACGTTT
CGTTCCGGAGTGAGTACTATTTGAGCAAGAAGAGACATAGCAGAGCTTGGCATGGTCTGGAATCAGCGGCTCAATTTTCATCTGGAATGTTGCGGTTT

FIGURE 17 (CONT.)

CCAAAGGGAGAGAAAATCGCCATTGAAGAGGCATTACAGATGAATTTCTGAAAGAGTCGGAGAGAGAGGCGTCTGCTTGTATGATGGGCGCCGCGA
GATGAAAATATTAGGCATTTCGAGCGTCGCGGGTTTCTGTCTCACTGCGGATGGAACCTCTGTCTGGAGAGTCTGGTGTCTGGCGTGGCGGATCATAT
CCCTGCCGATACACCTCGAACAGCCGTGGAACGCCCTTGGTAGCGGAGCACGTGGCGTTTGTGTGAGGGCGAAGAGACGACGAGGAAATCTTCAA
AGAGAGTTGGTGGCGGAGGCCATTAAAGAAAGTGGTGGTTAGGAAACAGGAGCGGAACTGAGAAAGCAAGAGATAATTAGTGAAATCTTTGAAAAA
TAAAGAAGCTGAAACAAATACAAAGATTGGTGGCTGAGCTTCAACCGCTTCTGACGCAAGAGAGCTTGTGA

UGT8468

ATGGAAAAAATCTTACATAGTGATGCTTCCATGGTCGGGTTTCGGCCATCTCATACCATTTTTTACCTCTCCATAGCCTTAGCCAAAGCCAAAGT
TTATATCTCCTTCCTCCACTCCAAAGAAATATTACAGAGACTYCCCCAAATCCCGCGGACTTAGCTTCTTTCATAGATTTGGTGGCCATTCCTTGC
CGAGACTCGACGACGATCTGTTGCTAGAAATCTGAGAGGCCACTTCTGATATTCGATCGACAAGATTTCAGTATTTGAAGCGAGCCGTCGACCTCCTC
CGCCACCCCTTCAAGAAAGTTGTGCGCGAAACAATCGCCGACTGCGTGGTCTTATCTTGGACCTCCAGACGTGTATTCGAAGGATCCCTCAGATCATGGCACGAA
AGTTCCCGTCGCCCTACTTCTGTATTTCTCGGCCATCTGTTGCTTATCTTGGACCTCCAGACGTGTATTCGAAGGATCCCTCAGATCATGGCACGAA
TATCTCCCGTTACCATGACGTCGCGCGGAGTGGTGGTTCGTCCTTCCGTCAAGCCGTGCGCATCAACTTCGATGAGCGACGGTCACTGTCTGCTCTC
TATGAAACAAATGGTCTGGAATAAGCGACTGCGAGAGGATTGCGCGGCTCGTCCCTTCCGTCAAGCCGTGCGCATTCGAAGCTGCGAGGATTTGA
AGCGAATACCTTAGGTTATGTAAGAACTGATTCCACCGCAGGGGATTCGCGTGGCTTGCCTCCCGGAAAGCCACCAAAATCAGATCACGAGC
TCATCAAAATGGCTTACGAGCAAAAGCTCCGATTCGTGCTGTACGTGACATTCGGCAGCGAATGCAACCTGACGAAGGACCAAGTTACGAGATAGCC
CACGGCTGGAACCTGTCGAGCTGCCATTTTATGGGCACTGAGGAAACCCAGCTGGGCAGCTGAGGAAGACGATGGGCTGCCGTCTGGTTTCGTGA
GAGAACGTCGGGAGAGGGTGTGAGCATGGAGTGGTGGCGAGTTGGAGATTCTGGCGCACGAGGCCATCGGCGTCTCTTTAGTTACGGGGCT
GGGCTCTATTATCGAGTCGCTACAAAGCTGGGCACTGTGTTGTGCTGCCGTTATCATCGACGAGCCGCTGAAACTCAAAGCTTTTGGTGGAGAAA
GGGATGGCGCTTGAGATCAGAAGGAACGGTTCTGATGGATGGTTTAGTAGAAGACATCGCCGGAACCTTGAGAGAAGCTFATCGGTCGCTGAGGA
AGGCGGCGAGCTGAGGAGCCGTGCAAAAGAGGGCGGCCCATCGTTGGAGATGAGAAGCTGCAGTGGGAACAATACTTCGGCGGCTTCGTACAGTTTC
TGAGGGACAAGTCTTGA

UGT10391

ATGTCCGAGGAGAAAGGCAGAGGGCACAGCTCGTCGACGGAGAGACACACTGCTGCCGCCATGAACGCCGAGAAACGAAGCACCAAAATCTTGATGCT
CCCATGGCTGGCTCACGGCCACATATCTCCATACCTCGAGCTCGCCAGAGGCTCACCAAGAAAACTGCCACGTTTACTTGTGTTCTTCGCTGTAA
ATCTCCAAGGCATCAGCCGAAACTCTCTGAAAATTACTCTTCCATTTGAACTTGTGAGCTTCTATCTTCCATCTCTCCCGACCTTCTCCCCAT
ATGCACACGACCAAGGCAATCCCTCTACATCTACAAATCCACCTCATCAAGCCCTTCGACATGGCCGCCCTGATTTTCCGACCTGTTGCAGAACT
CGAGCCGATCTCGTCAATTCGATCTCTCCAGCCATGGGCAGTTCAATTAGCGTCTCGGAACATTCGCGTCTCAATTTCTGTTGTACCGGAG
TCGCTGTTCTTAGTCTGTTGGCTCACGTTGTTTGCAACTCCGTTAAGGAATTCCTTCCCGGAACCTCGATTAACCGACCATTGGATCTCCAAGAGC
CGCCGCAAAACGTCGACGAATTAGTCCGAGTGGCGGATGCGATTTTTCAACTGCAATGAACAATCTTCAAACATCACTTAGCCAAACACTTTCCC
CGAGTTCGAAGAAAAATACATCGATTATCTCTCTTCCCTGTTTAAAGAAAAAGATCTTCCGTTGCTCTAGTTCCCTGAAATCGACGACGACG
AGAAATCGGAAATATCGAGTGGCTTGACAAGAAACCGAAATCGACTGTTTACGTTTCGTTGGGAGTGAGTATATCTGACGAAAGAGACAGG
GAAGAGCTCGCCCATGGCTTAGAAAAGAGCGGCGTGAAATTTTCATCTGGGTATTAGGTTTCCAAAGGGCGAGAAATCAACATTGAAGAGGCTTTACC

FIGURE 17 (CONT.)

AGAAGGATTCTCGAGAGAGTAGGGACAGGGGAGTGATTATCGACGGGTGGGCGCCGCAAGTGAATAATTGAGGCATTCAGCGGTGGGCGGGTTCG
 TGTGCCACTGCGGGTGGAACCTCTGTGGTGAGAGCGTGGTGTGGGTGCCGATCATAGCCCTGCCGATGCAGCTCGATCAGCCATGSCATGCGAAG
 GTGGCGGAGGACGGCGGCTCTGTGCGGAGGCGAAGAGACGCTTGAAGGGAGCGTTTCAAGAGAGAGAGGTGGCGAAGGCCATTAAAGAGGGTGTGT
 TGAGAAAGAGGGGGGGTCTGTAGTGGAAAGCAAGAGAGATCAGCGAGGCCCTTGAGAAAGAGGGGAAATCATAGAGGAATTGGTTCCTGAGT
 TTCACGACTCTGTGAAGCTTGA

UGT11789 (partial gene sequence)

TTCTGCTCCACGCTGTAAATTGGAAGCCATTAAACCAAGCTTTCAAAAGCTACTCTGATTCGATCCAACTAATGAGGTTCTCTCTCGAATCGAC
 GCGGAGCTTCCCTCCTCACTATCATACAGCCAAAGCCCTCCGCGCATTTAATGCCAAACTCATGAATGCCCTTAAATGGTTGCTCCCAATCTCG
 AATCGATCCTAAAACCCTAACCCAGATCTGCTCATCGTCGACATTCCTTCCATGGAATGCTTCCACTCGCTTCAATGCTCAAAATTCGATGGTT
 TTCTTCACTATTTTCGGTGCCATGGCCATCTCCTTTATGATTTATAATCGAACCGTCTCGAACGAGCTTCCATTTCCAGAATTTGAACCTTCACGAGTG
 CTGGAATCGAAGTCCCTATTTGTTCAAGGACCAAGCGGAAAGTCAATCGTTCTTAGAATACCTTGATCAATCTTCAGGCGTAATTTTGATCAAAA
 CTTCAGAGAGATTGAGGCTAAGTATGTAGACTTCTCCTTCTACCTTCGTCGTTTACGAAGAAGTGTGTGACCAACCGTCCCTGGTTCAGCAACCTTCTTC
 GCGAAGACGAGAAGCAGTACTCCGATATCATCGAATGGCTAGACAAGAAAGGAGCCGTTATCGACGGTGTCTCGTTTGGGAGCGAGTATATCT
 GTCAAGGAAGAGATGGAAGAAATCGCCTACGGCTGGAGAGCGCCAGCGAGTGAATTCATCTGGATTGTTAGGTTCCGATGGGACAGGAACGG
 AGGTCGAGGCGGCGTCCGGAGGGGTTTCAATCCAGAGGCGAGGAGAGAGGAAAGTGGTCGAGGCTGGGCTCCGAGCGGAAATATTTGGCGCAT
 CCGAGCACCGGCGGCTGTGAGCCACAACGGGTGGAGCTCGATTGTGAGTGTGATGTCGGTGTACCGGTGATCGGCGCGCGATGCAACTTGA
 CCGGCCAATCGTCGAAGCTGGTGAGGAGATCGGCGTGGGTTTGAAATCAAGAGAGATGAGGAAGGAGAAATCACGAGGGCGAAGTTGCCGATG
 CAATCAAGACGCTGCGGTGGCAAAACCGGGAAGATTTAGAAGGAAAGCAAAAATAATCAGCAGCATTTTGAAGATGAAAGATGAAAGAGGTT
 GACACTTTGGCAATGGAATTAGTGAGGTTATGCCAAATGAAAAGAGGGCAGGAGTCTCAGGACTAA

UGT11999 (partial gene sequence)

TCCGGTCAACGGTAGAGGACTTCACGGAGCTTCGAGAGTGGATGCCCTTCTGGATCGAACATGGTCTACCGGTACCACGAGATTAAAAATCCTTAGA
 TGAGCAACCGCAACGAATCGGGACGCTGATTCCGTCGATTCGGAAATTGTGATTGAGGAGAGTGTGCTGTGGCTGTAAGAAGCTCCCCGAAAC
 TGGAACCGGAATGTTTCGATTGCTCGCGAAGCTTTACCAAGCCAGTTGTTCCGGTAGGAATTTCTACCTCCAGTAATTGAAGATGCGGAAGAATTG
 AGCAGCGATATCAAGGAATGGTTAGACAAACAGAGCTCAAACTCGGCTCTTACGTGCAATTCGGGACCGAGGCGACTCTGAGTCAAGATGACGTAC
 TGAGTTAGCCATGGGCTTGAGCAATCTGGGATACCATTTTCTGGGTACTGAGAACCTCACTCGGACGAGTCAGACATGTTACCGGCGGGTTCA
 AGGAGCGAGTCGAAGGTCGAGGAAGTGTTCAGTGGGATGGGCTCGCAGGTGAAGATACGTAGTCACGACTCGGTGGCGGTTGTTGACACACTGT
 GGATGGAACCTCGATCATAGAGGGGCTCGGATTCGGGCGGCTTATGGTATTGTTTCCAGTCTGTGAACGACCAAGGATGAAACGCTAGATTGTTGGGGGA
 GAAGAAGCTCGGGATAGAGATAGAAAGGACGAGCGAGATGGATCGTTTCAACGCGACTCGGTGTGGAAATCGGTGAGGTGCGCAATGGCGGAAAGTT
 CAGCGAGGCCCTTGAGAGTGAGGGCCAGGAAATGAAGGGGTGTTTGGAACCGGAGATGAGACGAGCATCAACTGAACAAGTTTGTACAAATTTCTC
 GAGGCAACAGGAATAGGCAGTCCGAGTAA

UGT13679 (partial gene sequence)

FIGURE 17 (CONT.)

ATGGAACACGACGGCGTTTTCACGTGGTGATTCCCATGGCTAGCCTTGGGTCACTCATCTCCTTTCGCTCGACTCGCCACCTGCTTAGCCACAAATCGTATCAACACCAAGGAACCTGAGCAGAAATCCCAAATAACCCCAACATCTCTCTCTCCGTCAACCTCGTCGGCTTTCCTGCCCCACGTCGACGGCCTCCGGACGCCCGAGGCTTCTCCGACGTGCCCTACACAAGCAACAGTTACTGAAGAAGGCCTTCGACTCTCTGCAATCACCGTCGCCGATTTGCTTCGTGATTGAATCCCGATTGGATTATCTACGATTACGCCCTCTCATTTGGCTTCCGACAGCTCGCGCGGAGCTCCGATATCTCGTCTGTTTCTTCAGCCTCTTCACCGCGGCGTTTCTTGCTTTTCTTGGCCCCACCGTCGGCGTTGTCCGGCGACGGCAGTTCCCGGTGA

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