

Suppl. 4

A. Nucleotide and deduced amino acid sequences of PsCYP301B1 from *P. solenopsis*

1	ATGCTCAAATTAATTACTGCCGTTAAAAAAAAGCAAATATCTCAATGTAGAAATCGTTTC
1	M L K L I T A V K K K Q I S Q C R N R F
61	ACACTTTCGATGAACGGATCACCCCAGATCATTTGTGGGCCTTCGATACTGAGCAATGAG
21	T L S M N G S P Q I I C G P S I L S N E
121	ATACGACCATATGAAACAATACCTGGACCAAAGCCTATACCGTTGTTGGGGAACAGCTGG
41	I R P Y E T I P G P K P I P L L G N S W
181	AGATTTTTTACCGTTCATAGGTCAATACAAATTAGAAGAAATAGATTTGCTTTCCAAAGCA
61	R F L P F I G Q Y K L E E I D L L S K A
241	CTTCATGAACAATTTGGTGATATCGTGAAGATAGAAGGAATATTGGGACGGCCGGATATG
81	L H E Q F G D I V K I E G I L G R P D M
301	GTGTTTCCTGTACGATGCGGATGAAATTGAAAAAATTTTTTCGTAATGAAGACGTTTTTGCCA
101	V F L Y D A D E I E K I F R N E D V L P
361	TTGAGACCATCTATGCCATCTCTTAGTTACTACAAACATACACTTCGGAAAGGTTTTTTTT
121	L R P S M P S L S Y Y K H T L R K G F F
421	GGAGATATCAGCGGAGTGATCGCAGTGCATGGACCTAAATGGTTGGAATTTTCGTTCAAAA
141	G D I S G V I A V H G P K W L E F R S K
481	GTGCAACAACCAGTTCTGCAACCACGTATTGTTAAACTGTATGTACGTGATATTGAAGAG
161	V Q Q P V L Q P R I V K L Y V R D I E E
541	ATCGCCAATGCCTTCATTTCTAGAATTAAAAGGCGTCGAAGTATTAATGACGAAGTTGGT
181	I A N A F I S R I K R R R S I N D E V G
601	GCAGATTTTTTTGAACGATATTCATCTTTGGTCTTTAGAAAGTATTGGGAAAATAGCGTTA
201	A D F L N D I H L W S L E S I G K I A L
661	GATGTACGATTTGGTTGCCTGGACAACGTGATTGCGAATGAAGACACGCAATTATTTATT
221	D V R F G C L D N V I A N E D T Q L F I
721	GATGCGGTGAATACATTTTTTCAAGAATGTTGGCGTATTAGAATTGAAAATACCATTTTGG
241	D A V N T F F K N V G V L E L K I P F W
781	AAAGTTTTTCAACACCCCCTACTTGGAAGAAATATGTTTCATTCCTTAGACACCATTACCAGC
261	K V F N T P T W K K Y V H S L D T I T S
841	ATCACCATGAAGTACGTAGCAGAAGCGCAAAATTCATCATACAATAGTTGCTCATCATTT
281	I T M K Y V A E A Q N S S Y N S C S S F
901	TTAACAAGAGTAATTCTTCACTTCTTCAACGAGTCCTTGCCTTAGATCCGAGCAATCCG
301	L T K S N S S L L Q R V L A L D P S N P
961	AAATTGGCCGCAGTTCTAGCATTGGATATGTTTCTAGTTGGAATTGATACGACGTCGGCT
321	K L A A V L A L D M F L V G I D T T S A
1021	GCGGTGGCATCAGTTTTTATATCAACTGAGTCAAAATCCAGACAAACAGCAAATATTATAT
341	A V A S V L Y Q L S Q N P D K Q Q I L Y
1081	GATGAAATAAATAGAGTTTTTACCGAAATTGGATGACGAATTAACCATGGAAAAAATCGAC
361	D E I N R V L P K L D D E L T M E K I D
1141	AACTTGTTTACTTAAAAGCATTTATAAAAGAACTTTGAGATTACATCCTGTAGTGCTA
381	K L V Y L K A F I K E T L R L H P V V L
1201	GGTAATGGAAGAACATTGACTAAAGAAACAGAAATTTGTGGTTTTTAAAGTTCCTAAAGGA
401	G N G R T L T K E T E I C G F K V P K G
1261	GTTCAAGTTGTATTTCAACATTTTGTATGAGTAACTCTGAACGTTATTTCAAATGCGCC
421	V Q V V F Q H F V M S N S E R Y F K C A
1321	AACAATTTTCGAGCCAGAAAGATGGTTGAAAAACAATTTAGAAAAACCACATCCGTTTCGTA
441	N N F E P E R W L K N N L E K P H P F V
1381	TCATTACCTTTTTGGCTTTTGAAAACGCATGTGCTTGGGAAGAAGATTTCGCAGAACTTGAG
461	S L P F G F G K R M C L G R R F A E L E
1441	ATACAAGTCCTCATAACCAAGATGGTACAAAATTTCTGCGTCGACTTCAGACACAAAAAA
481	I Q V L I T K M V Q N F C V D F R H K K
1501	CTCGAATATAGCGTCCAGCCGATGTACTTGCCCAAAGGAGATTTAACCTTTACATTTAGG
501	L E Y S V Q P M Y L P K G D L T F T F R
1561	AATCGCGAGAAAAATAAAAATCAATGA
521	N R E K N K N Q *

B. Nucleotide and deduced amino acid sequences of PsCYP302A1 from *P. solenopsis*

1	ATGACTTTTTCGATGTGGAAAAGTACGTAATTTTTTCCACCGAACTGTCCCCAAAACCTTTT
1	M T F R C G K V R N F S T E L S P K P F
61	AATGAGATAACCAGGGCCAAAATCGTTGCCTATAATCGGAACTTTGTGGCAGTACTTGCCG
21	N E I P G P K S L P I I G T L W Q Y L P
121	CTGATTGGAAAATATAAATTCGATAGACTACACTGGAATGGGTACTGAAACTGAAAGAA
41	L I G K Y K F D R L H W N G L L K L K E
181	TTCGGTCCTCTAGTCCGAGAAGAAATGATTCCCGGTCTACCAGTGGTATGGGTGTTCAAA
61	F G P L V R E E M I P G L P V V W V F K
241	CCAGAAGACATCGAAACGGTATACCGAAACGAGGGGAGATACCCAGAACGTCGAAGTCAC
81	P E D I E T V Y R N E G R Y P E R R S H
301	CTTGCTTTTACAAAATATCGTCTCGATAGACCGGACGTATATAATTCCGGAGGGTCTTCTT
101	L A L Q K Y R L D R P D V Y N S G G L L
361	CCAACCAACGGTCCGGAATGGTGGCGTTTACGGAGGATATTTCAAAAAGATTTAAATAAA
121	P T N G P E W W R L R R I F Q K D L N K
421	ATTCAAAACGTTTCGCTTATACTTGTTCGAAATCGGACGAAATTATCAAGAATTTTTTTACAA
141	I Q N V R L Y L S K S D E I I K N F L Q
481	CGCAGAATTCCCAAATACGAAAACGATTTTCGCGCCAGAATTATCGCGATTATATTTAGAA
161	R R I P K Y E N D F A P E L S R L Y L E
541	CTGACTGGTTTtagtGGCGTTCGACGAACATTTGGGTAGTTTTAGCGATACGCAAATGGCC
181	L T G L V A F D E H L G S F S D T Q M A
601	CCTAGTTCTCCAATGTCAAGGTTGATTGATTCAACGGCTTTTATAAATAGCTGCGTATTA
201	P S S P M S R L I D S T A F I N S C V L
661	CGTACCGATAACGGTCCTCAGCTGTGGAGGAAATTTAACACACCGTTGTATAAAAAATTT
221	R T D N G P Q L W R K F N T P L Y K K F
721	TGCGAAGCTCATTtATGCTTGGAAACAGTTGCCAAACATTTTGTATACAAGAAAATGCGC
241	C E A H L C L E T V A K H F V Y K K M R
781	AAGCTTACAGAGGAACGTGGCAATCATCAATATTCTTTGTtagAGCAATATCTACTCAAC
261	K L T E E R G N H Q Y S L L E Q Y L L N
841	AAAGAGCTCGATACTAAAGATGTGATCGGAATGGCAGCGGATATGTTATTGGCTGGCATT
281	K E L D T K D V I G M A A D M L L A G I
901	GATACCACCGCCTATACGAGTTGTTTCGGATTGTATCATATTTCCAAAAATGTTGACAAA
301	D T T A Y T S C F G L Y H I S K N V D K
961	CAAGAAAAAATGTTCAAAGAGCTGGAATCGTTGATGAACGCAGAATCCACGATAACCGAG
321	Q E K M F K E L E S L M N A E S T I T E
1021	GAAATCCTAAACCAGGCAGTCTATACGAAAGCAGTTATGAAAGAGATATTCAGGATGAAT
341	E I L N Q A V Y T K A V M K E I F R M N
1081	CCGATATCTGTAGGCATTGGTAGAATTTTAGCCAAAGATGCTGTGTTATCTGGGTATCTA
361	P I S V G I G R I L A K D A V L S G Y L
1141	GTGCCAGCGAAGACCATtGTTGTAActCAAAACCAAGTGAActTGCCGATTACCAGAATAT
381	V P A K T I V V T Q N Q V T C R L P E Y
1201	TTTCATAAACCGAACGAATTTATTCCGGAAAGATGGATCAAAGATCATGCACTTTATGAA
401	F H K P N E F I P E R W I K D H A L Y E
1261	AACGTCCATCCTTATTTAGTTCTACCATTTGGTCAcGGTCCAAGAACTTGTATAGCTAGG
421	N V H P Y L V L P F G H G P R T C I A R
1321	AGATTGGCTGAACAACATTTTTCAGTTGTTTTTTGATGAATGTGATTAGACGATACAGAATT
441	R L A E Q H F Q L F L M N V I R R Y R I
1381	ACTTGGAAAGGAGATCATTTAGATTGTAAATCATTACAGATCAATAAGCCGGATAAAAGC
461	T W K G D H L D C K S L Q I N K P D K S
1441	GTCGATATTGTTTTTTGAAAAACGATACTGA
481	V D I V F E K R Y *

C.Nucleotide and deduced amino acid sequences of PsCYP353F1 from <i>P. solenopsis</i>	
1	<u>ATG</u> AACTACTAAGAAATCTGGGTAAAGATGTGCGACCATTTCGTGAAATACCTTCTCCA
1	M K L L R N L G K D V R P F R E I P S P
61	AAAGCATATCCGATCATCGGACATGCATATTTATTTTCCGGCAAAGGTCCTATCACAAA
21	K A Y P I I G H A Y L F S G K G P Y H K
121	GATAAATTAACGGAAGCAGCTTACGATCTCAGTAAAAAATACGGTCCTGTTTTCTATCTC
41	D K L T E A A Y D L S K K Y G P V F Y L
181	AAATTTCCCGGTCAAAGTTTTGTCATTACTACCGATGCGGAGAATGCTTCAAAAATATTC
61	K F P G Q S F V I T T D A E N A S K I F
241	CAAATGAAGGAAAACCTTCCTAATCGCGTTACATTACCGGCTTTAGCATTATACCATGAA
81	Q N E G K L P N R V T L P A L A L Y H E
301	AGATCTTTTGGTGCCGTTGGAGTAGTTCCAGACAACGGGCCAAACTGGTATAAATTGAGG
101	R S F G A V G V V P D N G P N W Y K L R
361	AAAGCCTTATCGCCGTTGTTGATGAAAACCTACATTTCTAAATTTATCAATGAGAATCAA
121	K A L S P L L M K T Y I S K F I N E N Q
421	CTCATCGCCGATAAATTTGTCTGAATATATTAGAAAAACAAGGATAAAAATAACACACTA
141	L I A D K F V E Y I R K N K D K N N T L
481	ATCGATCTATGTTTCGCATATGTATCGGTATTCCATTGAATGTATGTCAATCGTGTGCCCA
161	I D L C S H M Y R Y S I E C M S I V C P
541	GGAAGACGTCTTACCAATGAAGAAGATCTACGTAAAATCATCGAAGGTAGTTGTACATTC
181	G R R L T N E E D L R K I I E G S C T F
601	ATGGATGGACTCTATCGTACTTATTCGGAGCCTCCTGTGTGGAAATTTATCAAACTAAA
201	M D G L Y R T Y S E P P V W K F I K T K
661	GGATACAGAAAATTGGAACGAGGGCATAATATAATCAATAGATTCATGTACAAAGAAATG
221	G Y R K L E R G H N I I N R F M Y K E M
721	GAGAAGCCAATCAATACGTGGAACGATTCCTTTATGAAAGTTCTATTTCAAGATTCTGAT
241	E K P I N T W N D S F M K V L F Q D S D
781	TTAACTCGAAACCAAGCTCGTGTTTTATCCACTGAAGTATTTTTTATCAGGAATTGATTG
261	L T R N Q A R V L S T E V F L S G I D S
841	ATATCCACCGCTATCACCATGACTTTGTATTATCTTTCCAAAAATGAAAAATGTCAACAT
281	I S T A I T M T L Y Y L S K N E K C Q H
901	GAAGCTCTAAATGATGTGAAAAATGGCTCTCTGTCATACTTAAGAGCCTGTTTCAAAGAA
301	E A L N D V K N G S L S Y L R A C F K E
961	ACATTAAGATTATCAGCAACTGCTGGCGGTACCACTAGAGCACTTCCTGCTGATGTAGTT
321	T L R L S A T A G G T T R A L P A D V V
1021	ATGAATGATTACAACATTCCTGCAAATACTTACATTACCGCTTTCCATTCTGCAATGTCA
341	M N D Y N I P A N T Y I T A F H S A M S
1081	CTTATGGATGAGTATTTTGAAGATGCTGATCTTTATAAACCAGAAAGGTGGTTGCATTG
361	L M D E Y F E D A D L Y K P E R W L H S
1141	GAGAAGGTGCAAAGAAAAACGAATTCAGTAATTTTGCCTCTTTACCTTTTCGGACATGGA
381	E K V Q K K N E F S N F A S L P F G H G
1201	CCGAGAATGTGCCCTGGGAGATGGTTATCTGAACAAGAAAGTGTAATCTTGTTGAGCGCT
401	P R M C P G R W L S E Q E S V I L L S A
1261	ATATTAATAATCGTATAAATTAGAATCAGCGACGCCATCTCGAGTCGGTATGATATATAGA
421	I L K S Y K L E S A T P S R V G M I Y R
1321	ATGAATCGTATTCAGAGCGTTCGATCGATATAAAGTTTATAGATAGATAA
441	M N R I P E R S I D I K F I D R *

D. Nucleotide and deduced amino acid sequences of PsCYP3634A1 from P. solenopsis

1	ATGTCAAAAATACGTGATGAAATCATAACTTATTCGACATCGGTGAAAATTGGCCTACTA
1	<u>M</u> S K I R D E I I T Y S T S V K I G L L
61	ACTATTCTAATTGTGTTATTATGGAAATATTTAATGAAATTATTCCGTCGTGATCATCGT
21	T I L I V L L W K Y L M K L F R R D H R
121	TTGGTGACATTTGCTGAAACTCTACCCGGACCCCCAACGATACCTATAATAGGAAACGGT
41	L V T F A E T L P G P P T I P I I G N G
181	TTAGATTTCTACTATGGAGGCGTCCATGCAATGAAGAAGGTAATGGGATATAACCGAAAAA
61	L D F Y Y G G V H A M K K V M G Y T E K
241	TATGGCCATATATATAGGCTATGGTTCGGTAAATTTTTTAGTCGTTGGATTATCGAAAGTT
81	Y G H I Y R L W F G K F L V V G L S K V
301	GAAGATTTAGAGGATGTATTTTATGAATTCAAAAACGATGGGAAAACCGGAAATATTTCGA
101	E D L E D V F M N S K T M G K P E I F R
361	CCATTTTCAGGATTATTGGGGTGATGGATTGTTTACTGGTCCAATGCATATTTGGAAAAAA
121	P F Q D Y W G D G L F T G P M H I W K K
421	AATAGAAAACGGTTTCAGCCCATTTTTTGGAATAATATAATGGGCTTATACACTCCAGAA
141	N R K R F Q P I F G N N I M G L Y T P E
481	TTCAATGATAAAATTTATAAAGTCGTTGATATGATGAAAACGTTGTTGAATGGACCAGAA
161	F N D K I Y K V V D M M K T L L N G P E
541	TTTGATGCTTGGGATTATTTACCTTATTTATCATTTGATATCATTACTAAAACCTCATTA
181	F D A W D Y L P Y L S F D I I T K T S L
601	GATGTGGAATTAGATTGGAACGATAAATCTGTGTTACAGTTTCACAATTCTGTAAAAACG
201	D V E L D W N D K S V L Q F H N S V K T
661	GGAATGGAACTAGTTTATTAAAAATGCTTCGGCCATGGTTACATATAAAATTCTTGAGA
221	G M E T S L L K M L R P W L H I K F L R
721	GATTTATTATACAAAAACAAGTTGAAAAAGTCCAGGGTAGTATGTTAAAATTTTCGCAA
241	D L L Y K K Q V E K V Q G S M L K F S Q
781	CAGACTATCCAAAATAAGTTGAATATAATTAAAGATGATATATTACGACGCAAAAATATA
261	Q T I Q N K L N I I K D D I L R R K N I
841	ATTAATCAAGATCCAAATGAAGTGATATCATTTAAATCATTTTTTAACCACTGCTTATGAG
281	I N Q D P N E V I S L K S F L T T A Y E
901	ATACAAGAGGAAGTAAATAATGAAAAACTTATGCACGATGAAATCATTACCATGATAACC
301	I Q E E V N N E K L M H D E I I T M I T
961	GGGGGTACTGATAACCACAGCGATAACAAATTCGTTTTTTCCTACTGGCAGTTGCTATTTAT
321	G G T D T T A I T N S F F L L A V A I Y
1021	CAAGATATACAGAGTAAATTATACGATGAAATGTATGAAGTTTTTCGGCGATAGTGATCGA
341	Q D I Q S K L Y D E M Y E V F G D S D R
1081	TATGCTGACCACGACGATGTGAAACGATTACCATATTTAGACCAAGTGTTGAAGGAAACC
361	Y A D H D D V K R L P Y L D Q V L K E T
1141	TTACGCAGATTTACTTTGGCTCCAGTCATTTTTCAGAGATGTAGAAGAAGATTGCAAAATA
381	L R R F T L A P V I F R D V E E D C K I
1201	GGTGGTAGACTATTTCCGGCTGGTACCGCGTTAATGATTTCTATCATAGGCGTTCATTTT
401	G G R L F P A G T A L M I S I I G V H F
1261	GATCCTGAATATTATCCAAATCCGTGGAAATTCGATCCAGAAAATTTTAGTCCTGAGGCT
421	D P E Y Y P N P W K F D P E N F S P E A
1321	GTGGAGAAACGTCATAAATTGACATTTCTACCATTTAGCAGTGGTCCTCGCAATTGCATT
441	V E K R H K L T F L P F S S G P R N C I
1381	GGTCAAAATTACGCCATGTTGGAAATGAAATTGACATTAATCGCTTTGCTGAGACATTTTC
461	G Q N Y A M L E M K L T L I A L L R H F
1441	AGTTTTTCATACAACCTATGACAATGGACGATATAAAGATGAATATGGGATTTTTTAATGACC
481	S F H T T M T M D D I K M N M G F L M T
1501	AGCGTTGACGGGTATAAAATGAGCATTAAACCACGGAACAGAAAACCATCATATTTGTGA
501	S V D G Y K M S I K P R N R K P S Y L *

E. Nucleotide and deduced amino acid sequences of PsCYP6PZ1 from <i>P. solenopsis</i>	
1	<u>ATGTCTCAAATCTTCCTGCTACGAACATCATTGGCCGAAATATACAGGGATATCTACAAT</u>
1	M S Q I F L L R T S L A E I Y R D I Y N
61	AAGCTGGAACCTCATAAATTCGGAGGAATATTCGCAGTCAAGAAAAAGACCATAATAATA
21	K L E P H K F G G I F A V K K K T I I I
121	AGAGATCCGGAATTAATTA AAAATGTGCTCATTAAAGACTTCGAGTACTTTTCATGATCGC
41	R D P E L I K N V L I K D F E Y F H D R
181	GGCACCAAAGTCGATCAGGAAGTGGATCCGTTGGGATATCATT TTATTCAACATGAGAGGC
61	G T K V D Q E V D P L G Y H L F N M R G
241	GAAGAATGGAAAAATCTAAGAATCAA ACTTACCAGCACTTTTACA ACTGGGAAAATGAAG
81	E E W K N L R I K L T S T F T T G K M K
301	ATGATGTTTCCCTTGGTAAACGAATGCGGCAAAAAATTAAACACCGTGCTTGCTAACTTA
101	M M F P L V N E C G K K L N T V L A N L
361	CCTGACAGCGAGGGATTTCGACATTAAAGATTTGGCAGCGAGATT CACAACCGACACAATT
121	P D S E G F D I K D L A A R F T T D T I
421	GGCACTTGCGCTTTTGGCTTAGAAACCAATTCTTTGGATAATCCTGATT CAGAATTCAGA
141	G T C A F G L E T N S L D N P D S E F R
481	CGAATGGGCAAAGCAATATTCAAGTTCAGATATCAGTCTTTAATACGAAGTGTGTGGACA
161	R M G K A I F K F R Y Q S L I R S V W T
541	AGCATTCACCAACACTAATCAAGAGATTGAAATTGGATTTTATTGAAAAAAAGATTCAA
181	S I P P T L I K R L K L D F I E K K I Q
601	GATTATTTTCATGGAAATTGTTGATGAAACTGTCCAGTATCGCGAAAAAAATAAAATATCC
201	D Y F M E I V D E T V Q Y R E K N K I S
661	AGAAACGATTTTCTCGATTTACTCATCGCTTTAAAAAATAACACCATAATCGAAAAATTT
221	R N D F L D L L I A L K N N T I I E K F
721	CAAGATACTGCTGAAACAGACGACCTAGAAAAATTTCTAGCTCAAGTAGGCGATAAACGC
241	Q D T A E T D D L E K F L A Q V G D K R
781	ATCAAAAGTAACATAGATATGTCTAATGCGATGCTAGCAGCTCAATGTTTTGTTTTCTTC
261	I K S N I D M S N A M L A A Q C F V F F
841	ATTGCTGGATTTGAGACCTCCTCCACCACGTTAGGATTTTTTATTACTAGAACTAGCGCAA
281	I A G F E T S S T T L G F L L L E L A Q
901	AATGAAGAAATTCAAAACAAGGTACGCGATGAAATTCGAGCAGTTTTTGGAAAACAATGAT
301	N E E I Q N K V R D E I R A V L E N N D
961	AATGAACTCACATACGATAGTATGAAACAAATGACTTACACGGATATGGCAATTGCAGAA
321	N E L T Y D S M K Q M T Y T D M A I A E
1021	GCGCTCAGGAAATACCCCCCAGCAGGAATATTAATGAGAGAAGCGAATAAAAATTACAAA
341	A L R K Y P P A G I L M R E A N K N Y K
1081	ATACCAAATACCAAATAATAATTCCTGCCAATACCGCCATTATAATTCCAGTCTTTGGA
361	I P N T K I I I P A N T A I I I P V F G
1141	ATACACAGGGATGCGAAGTATTACGATAACCCTGAAGAATTTTCGTCCAGAAAGATT CACC
381	I H R D A K Y Y D N P E E F R P E R F T
1201	GAGCGAGAAAAAGCCAAACGACCGCACTATACTTATCTACCATTTGGAGAAGGACCCAGA
401	E R E K A K R P H Y T Y L P F G E G P R
1261	GTTTGCATAGCTGAACGATTTGCCAAAATGCAAGTCAA AATTGGATTAGTATACATGTTG
421	V C I A E R F A K M Q V K I G L V Y M L
1321	AAAGACTTTTTCTTATCATCTTTTCGCCCAA AATGAAATTCCCATTGGAGTTTGAAAAAAT
441	K D F S Y H L S P K M K F P L E F E K N
1381	TTCGGACTTTTGACCGTTCGTAATGGCATT TGGCTGCAAAGAACAAAGTTATAG
461	F G L L T V R N G I W L Q R T K L *

F. Nucleotide and deduced amino acid sequences of PsCYP6PZ5 from *P. solenopsis*

1	ATGTACATTTTTAGTGTATTTTTCTTATTCATTGTAACGGTG TTCCTGTACATCTATCAT
1	M Y I F S V F F L F I V T V F L Y I Y H
61	GTATTCAGAAAATCTTACAAGTTCTTCGAAGATGCTGGAATACCGTACATCAAACCGCAA
21	V F R K S Y K F F E D A G I P Y I K P Q
121	TGGATATTTGGCAATATGAAGGATGTACTATTATTCAGAAAATCCTTACTCGAAAGATAC
41	W I F G N M K D V L L F R K S L L E R Y
181	CAAGAGTTATACCATCATTTTAGATCCTCATCCATACGCAGGAGTATTTCTAGCCCATAAG
61	Q E L Y H H L D P H P Y A G V F L A H K
241	CCCTCTGTTATGATACGAGATCCCGACCTAATCAAAGCTGTTCTAGTTAAAGATTTTCGCA
81	P S V M I R D P D L I K A V L V K D F A
301	TATTTTCATGATCGTATGATTGCTGGTATTTGCAAGAAAAC TGAACCAATAGCTAACCAA
101	Y F H D R M I A G I C K K T E P I A N Q
361	ATATCCATGATGAAAGGAGACGAATGGCGGAACCTTCGTATCAAATTGACCAGTACATTC
121	I S M M K G D E W R N L R I K L T S T F
421	AGCAGCGGAAAAAATGAAATTCATGTTTCCCACATTACTCAAGTGCTCCGAAGGCATTAAA
141	S S G K M K F M F P T L L K C S E G I K
481	ACGGCGCTTGAAAAGGTATGCTCAGATTCTGAAGGATTCTGAAGTTAAAGATTTTATGTTCC
161	T A L E K V C S D S E G F E V K D L C S
541	AGGTATACGACTGATGTAATAGGTAATTGCGCTTTTGGTATGGAAACACATTCCCTGGAA
181	R Y T T D V I G N C A F G M E T H S L E
601	AATCCTGATTCCGAATTCAGAAAAATGGGAAAACGTGTATTATCGTTT TAGATGGCAAACA
201	N P D S E F R K M G K R V L S F R W Q T
661	ATGCTACGCATGTTCTTTCCCAACATACCCAACAATTTTCATTAAAATCTTCGGATTACGA
221	M L R M F F P N I P N N F I K I F G L R
721	TTTTTTGAGAGAGAAGTCAGCGAATATTTTCACAAATATCGTCAAAGATGCAGTGAAGCAC
241	F F E R E V S E Y F T N I V K D A V K H
781	AGAGAACAGAATAACATAACCAGAGGTGATTTTCTAGATCTACTTATCGCTTTGAAAAAT
261	R E Q N N I T R G D F L D L L I A L K N
841	AACACCGAATTGGAGAAATTAAAAAATCAAACGACGACAAAGACTTGATAAAATTCATG
281	N T E L E K L K N Q N D D K D L I K F M
901	TCTCAAATTGGCGATAAGGTCATAAAAAGCAAAATAGATATGACTATTGAAACAATGACT
301	S Q I G D K V I K S K I D M T I E T M T
961	GCCCAATCATTTTCTCTTTTTTCTTGGCTGGATTTGATCCAACCGCAACAACGCTTAGTTTC
321	A Q S F L F F L A G F D P T A T T L S F
1021	CTTCTCTTCGAATTATCACAAAATCAACAAATTCAAGAAAAACTTCGACAAGAGATCATA
341	L L F E L S Q N Q Q I Q E K L R Q E I I
1081	TCTACATTGGAAACTAATGATGGAATATTA ACTTACGCAATGCTCAAAAAAATGCCTTAC
361	S T L E T N D G I L T Y A M L K K M P Y
1141	TTGGATATGGTTGTTGCGGAGACGTTAAGAAAATGGCCACTTGGGCTTATCATGCGTATA
381	L D M V V A E T L R K W P L G L I M R I
1201	TGCAATCAA AATTACAAGATTCCTGATTCAAATGTAATCATCAAAGAAGGAACCGAAGTT
401	C N Q N Y K I P D S N V I I K E G T E V
1261	ATCATTTCCGCGCAGGGTCTTCATTCTGATAAGAAATATTTT TGA AAAACCAGATGAATTT
421	I I S A Q G L H S D K K Y F E K P D E F
1321	TATCCGGAACATTTTACCGAAGAAGCAAAGGCAGCTAGACCTCATTACGCCTATTTACCT
441	Y P E H F T E E A K A A R P H Y A Y L P
1381	TTCGGAGAGGGTCCTCGAAATTGTATAGCTGAACGATTTGCTAAAATGATGGTTAAAGTT
461	F G E G P R N C I A E R F A K M M V K V
1441	GGAACAATCTACTTCCTCAAAGATTTTTTCTTTTGTATTATCACCAAAAACCAAATTACCA
481	G T I Y F L K D F S F V L S P K T K L P
1501	TTGGATATATTACCTTCATTTGGTAATATTGCAGTAAAAAATGGAATCTGGCTGAAATGC
501	L D I L P S F G N I A V K N G I W L K C
1561	GAACTTATACATAGATAG
521	E L I H R *

G. Nucleotide and deduced amino acid sequences of PsCYP3635A2 from *P. solenopsis*

1	ATGTATTTTTCTGTATGCCTGTGTTTGGTAATATGCATCTTGTACTTATGGCTCCGATAT
1	M Y F S V C L C L V I C I L Y L W L R Y
61	AAACTAAGCTACTGGGAGAGACGTGGAGCTCCTTCTTTACCCGTCAATTTCTTCAGCAGC
21	K L S Y W E R R G A P S L P V N F F S S
121	GAATTAAAATGGTTGGTAATGAAACAATCGCGATTCCAATACTTCAAGGATATCTACGAC
41	E L K W L V M K Q S R F Q Y F K D I Y D
181	CAATTGGCACCAATAAATATGGCGGATACAGCGTAATGCCACTTAAAATGATGGTACGA
61	Q L A P H K Y G G Y S V M P L K M M V R
241	GATCCTGAAATCATTAATTCGTGCTGACCAAGGAATTCGAGAGTTTTTTCCAGTCGCGAG
81	D P E I I K F V L T K E F E S F S S R E
301	AAACTATTCTTCACTAAGAGCGATCCGTTGACTCATTTTATTTTAAATTTAGAAGGCAAC
101	K L F F T K S D P L T H F I F N L E G N
361	GAATGGAAAGATAACCAGAGCTCGATTGACTCCTGGATTTAGTTCGGGTAAATTGAAATAT
121	E W K D T R A R L T P G F S S G K L K Y
421	ATGTTTGATTTGATCGCCGAATGTGCAGACGAGATGGATAAAAGTTTGCATATCAACGAG
141	M F D L I A E C A D E M D K S L H I N E
481	GATAGGCAACTCGTCGACGTATGCAAGGTACTGAGATTGTACGTTATGAACGTAATTTTC
161	D R Q L V D V C K V L R L Y V M N V I F
541	ACCTGCACGTACGGATTGAAAGTGAATTCCATGAAAAATGGTTGCGATATATTTTTTAAAA
181	T C T Y G L K V N S M K N G C D I F L K
601	ATGGCTGGTTTAATTCGTGGTGATAATGAAATTAATAGAAAATTGGCGAATTTTTTCTTTT
201	M A G L I R G D N E I N R K L A N F S F
661	ATATTTCCATCCGCCATAAGACACTATATTAGGCCTTCTACTTTTGGCGAGTACTCGAGA
221	I F P S A I R H Y I R P S T F G E Y S R
721	GATTTCTTCAAGGGCATTATCATGGATTCCATCAAATACAGAGAGGAAAATGATATAAAG
241	D F F K G I I M D S I K Y R E E N D I K
781	AGGAATGATTTCTTGCAGATTTTCATGACCTTGATGAAGGCTGAAGATGAATTCAAGTGG
261	R N D F L Q I F M T L M K A E D E F K W
841	ACCATAGACAAAACATTAGCTCACGGTATTCTCTACATCATGGCTGGTTTCTCAACCACC
281	T I D K T L A H G I L Y I M A G F S T T
901	ACCAGCGCTGTCAGTTTCCTCCTATATGAAATGGCCAAACACCCAGATATGCAAAAAAAAA
301	T S A V S F L L Y E M A K H P D M Q K K
961	GTCCACAAAGAACTGGATGAAATAATGGAAGAGTTCGATGGCACCTTAAATTACGAATGC
321	V H K E L D E I M E E F D G T L N Y E C
1021	GTTTCTAATACGAACTACTTGAATAAAGTTATATCAGAAACCATGAGAAAATACAGCGTT
341	V S N T N Y L N K V I S E T M R K Y S V
1081	ATATCTTCATTTTCCCGACGCTGCACCAGCACATGTACGCTCCCAGATGGTTTTGTGTCGTC
361	I S S F S R R C T S T C T L P D G F V V
1141	GAGAAAGGCACCGCCGTTGTGGTTTCAGTTAGCGGACTTCATCACGATCCAGCTTATTAC
381	E K G T A V V V S V S G L H H D P A Y Y
1201	CCAGATCCGTTGAAATTCGATCCAGAACGTTTTAATGAGGAAAATAAGAACGCTAGACAT
401	P D P L K F D P E R F N E E N K N A R H
1261	CCGTACTGTTTTTCTGCCTTTTCGGAGCTGGTCCGAGATATTGCATAGGCGAACGATTTTTCG
421	P Y C F L P F G A G P R Y C I G E R F S
1321	ATGCTGATGATAAAAGCGGCAACATTCACAATTCTGAAGAAATTTTCCGTTTCTGTGTTA
441	M L M I K A A T F T I L K K F S V S V L
1381	CCGGAACATGAAATAGAGTTTGATTTTATGCCTAATAAGCTGACCACTGAAGTACCAAGT
461	P E H E I E F D F M P N K L T T E V P S
1441	ATCAAGTTACAATTCATCATAGGCAACGTACTACAGATATTCAATGA
481	I K L Q F T H R Q R T T D I Q *

H. Nucleotide and deduced amino acid sequences of PsCYP15A1 from *P. solenopsis*

1	ATGATGTTGAAGTTGAATAGAATAAAATATGTATTTTCATTACAAC	TACTCCACTAATGCT
1	<u>M</u> M L K L N R I K Y V F H Y N Y S T N A	
61	AAGCCGTTTGAAGAAATACCTTCGCCAAAAGGTTTACCATTTGTTGGTACGTTATTTTCT	
21	K P F E E I P S P K G L P F V G T L F S	
121	TTTATCGCTGCCGGAGGAAGTACACAAC	TCCATGAATATATTGATAAAAGGCATCAACAA
41	F I A A G G S T Q L H E Y I D K R H Q Q	
181	CTTGGAATAATTTTTCAAGAGAAATTAGGACCTATTTTCGAGCGTGTTTTTAAATGATGCT	
61	L G I I F Q E K L G P I S S V F L N D A	
241	CATGAAATACGAAAAGTATTCGTTGGTGAAGGTAAATATCCGAAACACGTTCTTCCTGAC	
81	H E I R K V F V G E G K Y P K H V L P D	
301	TGCTGGCTTTTGTACAATAAAATAAAGGGATATCAGAGAGGTTTATATTTTCATGGATGGA	
101	C W L L Y N K I K G Y Q R G L Y F M D G	
361	GAAGAATGGTTTATGTACCGCAGGTTGTTAAATGATAAACTTTTAAAACATGATTACTAC	
121	E E W F M Y R R L L N D K L L K H D Y Y	
421	GGACATGGAATACAGAACGATTATCTTCTACAAAAGACATTTGAAATATGGCTTCAA	AAAT
141	G H G I Q N D Y L L Q K T F E I W L Q N	
481	TCTAAATACGGTGAAATAATTGATTTAGAAAATCAGTTATACTACCTCTCTATTATATTT	
161	S K Y G E I I D L E N Q L Y Y L S I I F	
541	ATGATGTCTTTTACTCTTGGACGTTCTTTTTCACGATAATGTCGATAAATTTTTACCCAAT	
181	M M S F T L G R S F H D N V D K F L P N	
601	GTTGAAAAGTTAGCATTGGTGGTGAAAGACATCTTTAAATGGAGTGTA	AAACTATCAATT
201	V E K L A L V V K D I F K W S V K L S I	
661	CTGCCAGCGACTTTGGCCAGTAGTTTAAATTTACCTGTTTGGAATAATTTTGTC	ACTGCA
221	L P A T L A S S L N L P V W N N F V T A	
721	GTTGACGAATCTATTAAACTTACCACAGATCTATTAGAAGGAGCTGAACTAAAGGCTAGT	
241	V D E S I K L T T D L L E G A E L K A S	
781	GATGGAATTCTCTATTTTTTTATTAGACCAAACAT	TCCAATAGATGTAGCGCAACGAATA
261	D G I L Y F L L D Q N I P I D V A Q R I	
841	ATTGTGGATTTTTTTGTTGGCTGCTGGAGATACGACTGCTTTGGCTACCCTTTGGATATTG	
281	I V D F L L A A G D T T A L A T L W I L	
901	TATTTGTTAGGAAGGCATAAAAATATTCAAGACGAGTTATATAGTGATATTCA	AAAAAAT
301	Y L L G R H K N I Q D E L Y S D I Q K N	
961	CGTGATAGTCATGAAACTCGATTATTGCGGAACATAATTAAAGAATCCATGAGATTGTAT	
321	R D S H E T R L L R N I I K E S M R L Y	
1021	CCGATCGCACCGTTCATTGCTCGCTATTTGCCACAGGAAACAGAAATAGCTTCCTACCTT	
341	P I A P F I A R Y L P Q E T E I A S Y L	
1081	ATTCCAGCTAACCATTTAATCAGCATATCGGTCTTCAACTGTAGCAGAAATGAAAAATAT	
361	I P A N H L I S I S V F N C S R N E K Y	
1141	TTCCCTAAAGCGAATAAATTTGAACCAAAAAGGTGGGATCGTTTGGCAAATGGAAAATAC	
381	F P K A N K F E P K R W D R L A N G K Y	
1201	GCTGAAGTCAATGATCCATATGCTACTTTGCCGTATGGGATGGGAGCACGATCTTGTATT	
401	A E V N D P Y A T L P Y G M G A R S C I	
1261	GGCAGGAATTTGTCTAAAGTACAAATCAGTATCATCATAAACAAATTAATTGCTTCGTAT	
421	G R N L S K V Q I S I I I N K L I A S Y	
1321	GAACTTGAAGTTCGAAATGAGGTTGGAGTGAAATTAAACATGGTTACAAC	TCTCACAA
441	E L E V R N E V G V K L N M V T T P S Q	
1381	CCCATCAAAC	TATTCTTGAAAAAAGATGA
461	P I K L F L K K R *	

I. Nucleotide and deduced amino acid sequences of PsCYP4NT1 from P. solenopsis

1	ATGCAATTTACTTTGTACGAATATTCGATTTCTTATTCCGCCGCTATGTCGGTGTTTTTG
1	M Q F T L Y E Y S I S Y S A A M S V F L
61	ATTTTTATTTTAACGCTTCTCGTTTCATTGCTTTGTAAACGACGTATGCAATTTTACGA
21	I F I L T L L V S L L C K R R M Q F L R
121	TATTTTGAAACAATACCAGGTCCAAGTGCTATACCGATTTTAGGAAATGCTTTACAATA
41	Y F E T I P G P S A I P I L G N A L Q L
181	ACTGGATCTCAAGCAGAATTCTTCAAGCTTGTACGACAATATGCTGAAAAATACAAAAAT
61	T G S Q A E F F K L V R Q Y A E K Y K N
241	ATGTTTGTATTATGGATCGGACAAAGACCTTTCGTGTTTTTTGAACAAGGCGGAAGTTATT
81	M F V L W I G Q R P F V F L N K A E V I
301	CAGCCCTTACTGAATTCTAGCGTGCATATTGAAAAAAGTTTGGAATACAAACTTCTAGAT
101	Q P L L N S S V H I E K S L E Y K L L D
361	CCTTTCCTTGGCACCGGATTAGTGACTAGTGCAGGACAAAAATGGCATTACAAAGAAAA
121	P F L G T G L V T S A G Q K W H S Q R K
421	CTTTTGACGCCAGTATTTCACTACAATATGCTTGAAAATTATCTCCACACTGTACTAAAA
141	L L T P V F H Y N M L E N Y L H T V L K
481	GAAAGCGAAGTTTTAGTCCAGCAACTTCAAAAAGAAGTGGATCACCCATTTAACATCGTG
161	E S E V L V Q Q L Q K E V D H P F N I V
541	CCCTACATGAAATTAGCAGCTATGGACATAATCTGCGAGCTAACACTAGGATACCAGCTT
181	P Y M K L A A M D I I C E L T L G Y Q L
601	CATTCCCAAATCAACGCTAATCTGGAATACGTTTCATGCTATTGAAGATTTAATGGCTATT
201	H S Q I N A N L E Y V H A I E D L M A I
661	GCACAAAGGCGATTCATCACTCCATGGCTAAAACCAAATTTCTTGTTCAACTGCACACCA
221	A Q R R F I T P W L K P N F L F N C T P
721	TATGCTGCTAGGCAGAAAAAATGTTTGGACATAGTTAATACGTTTTTCAACCAAATTATC
241	Y A A R Q K K C L D I V N T F S T K I I
781	GAAAAGAAAAAAGAAGAGTACCAAATTCGCAAAAAAACAAAGTTGCGTTGGATGTCAAT
261	E K K K E E Y Q N S Q K N K V A L D V N
841	TCCAATATTTTACAAAAAAAAAAGGAAAAGTGTTTTTTAGACTTATTGTTAGAACTTTTCG
281	S N I L Q K K K G K V F L D L L L E L S
901	GAAAACGGATCGATTCTCACCGATGATGATATAAGAGAAGAAGTGAACACATTCATATTT
301	E N G S I L T D D D I R E E V N T F I F
961	GCCGGTCACGATACTACATCGATAACTGTTTCTTGGAGTCTTTACCTGTTGGGATTTTCAT
321	A G H D T T S I T V S W S L Y L L G F H
1021	CCAGAAGCTCAAGAGAAAATTTTAAAAGAATTAAATGAAAAAATACCGGATTTTCGGAAGT
341	P E A Q E K I L K E L N E K I P D F G S
1081	TCTTCATTAAAAACATCAGATATTGGTAGTCTGGAATATTTGGAATGCTGTATCAAAGAA
361	S S L K T S D I G S L E Y L E C C I K E
1141	GTCTTAAGACTATATCCTCCAGTTCCTTTAATAGCAAGACATATAACTTCACCATTAGAA
381	V L R L Y P P V P L I A R H I T S P L E
1201	ACGATGAATCAGATAATACCACCAGGAACTAGCGCATTAATCAATGTATACTCCTTACAT
401	T M N Q I I P P G T S A L I N V Y S L H
1261	AGAGATCCACAAAACCTTTCCTAATCCTTCTGAGTTCATTCCCGAAAGGTTTTTCAGCAGGA
421	R D P Q N F P N P S E F I P E R F S A G
1321	CAGTCAGTTGAAAAGAATCCATTTTGTATATTCCATTTAGCGCTGGCCCGCGAAACTGT
441	Q S V E K N P F C Y I P F S A G P R N C
1381	ATCGGGCAAAAATTAGCCATTCAAAGCGTCAAGATAATTTTAGCAAATATTATCAAGAAT
461	I G Q K L A I Q S V K I I L A N I I K N
1441	TACAAAATTAAGACAATGCAGAAAGAAAAAGATTTGAGATTAATTTCCGAAGTAGTTTTA
481	Y K I K T M Q K E K D L R L I S E V V L
1501	ACCAACGAAGGTGGAATTAACATTACCATCGAGAAAAGATGA
501	T N E G G I N I T I E K R *

J. Nucleotide and deduced amino acid sequences of PsCYP4G219 from P. solenopsis

1	ATGGCAGTATCATTAGAGACAGTCAATGTTTTAAGATTATTCTCATCCACAACAACCTTC
1	M A V S L E T V N V L R L F S S T T T F
61	TTCTACCTCTTAATAACCGGCGCTGACGCTATGGTACATTTATTTTAGAATCAGTAAAAAG
21	F Y L L I P A L T L W Y I Y F R I S K K
121	AGATTTTACGAATTACTATCGAAAATCGACGGTCCGTCCGGATTACCGCTTTTGGGAAAC
41	R F Y E L L S K I D G P S G L P L L G N
181	GCTTTAGAATTCATCGGCGATCCGCATACTACTTTTAAAATTCTTTACGAGAGGAGTTTC
61	A L E F I G D P H T T F K I L Y E R S F
241	GAATTCGAATTCGGAAAACCGATTAAAGATTTGGATTGGACCAAGAGTGGTGGTGTTCCTTG
81	E F E F G K P I K I W I G P R V V V F L
301	ACGGATCCCAGAGATGTTGAAGTTATTTTAAGCAGCCACGTGCACATAGACAAATCGCCA
101	T D P R D V E V I L S S H V H I D K S P
361	GAATACAGGCTCTTCGAACCTTGGCTCGGAGATGGTCTGTTGATCAGTACCGGTGAAAAA
121	E Y R L F E P W L G D G L L I S T G E K
421	TGGAGAGCGCACAGAAAACCTGATCGCTCCTACTTTCCACTTGAATGTGCTGAAATCATTC
141	W R A H R K L I A P T F H L N V L K S F
481	ATCAGCATTTTCAACAAGAACAGCAGAGCTATTGTAGAAAAAATGAGGAAACTTGGTGAC
161	I S I F N K N S R A I V E K M R K L G D
541	AGAGAATTCGACGTGCACGAATATATGGGAGAAGCGACGGTAGAAATTTTACTCGAAACT
181	R E F D V H E Y M G E A T V E I L L E T
601	GCGATGGGAGTTGATAAGAAAACCTCAGGATAGGGAAGCCAGCGAATATGTTATATCAGTC
201	A M G V D K K T Q D R E A S E Y V I S V
661	ATGAAGATGTGCGATATCTTACATTTGAGACATAGACAAATCTGGTTCAGACCTGAAGTC
221	M K M C D I L H L R H R Q I W F R P E V
721	ATTTTCCAGTTCACCAAATACGCTAAAGCTCAAGAAAGATTTTTGAGCATCATTCACGGT
241	I F Q F T K Y A K A Q E R F L S I I H G
781	TTGACCAACAAAGTCCTCCAAGTCAAAAAATCCGAATACGAGAAGAGGAAAAAGGAATTA
261	L T N K V L Q V K K S E Y E K R K K E L
841	CTCGACCATGAACCCGAATTCAACATTCAAGATAAATCGGAAGACTTAAAAACCGAAAAA
281	L D H E P E F N I Q D K S E D L K T E K
901	GCCGAAGTCAAAGTCGAAGAAATCAAATCGAACAAACCCGAAGAAACGGTTATCGGACAC
301	A E V K V E E I K S N K P E E T V I G H
961	TCATACGGCCAAGCAGCTGGATTAAAGGATGATCTCGATGTAGACGATGATATCGGTGAA
321	S Y G Q A A G L K D D L D V D D D I G E
1021	AAGAAACGTCCAGCTTTCTTAGACTTGTTAATTGAAAGCGCCGAAAATGGCGTCGTCTTA
341	K K R P A F L D L L I E S A E N G V V L
1081	ACTGATAAAGAAGTCAGAGAACAAGTCGATACCATCATGTTCGAGGGACACGATACGACA
361	T D K E V R E Q V D T I M F E G H D T T
1141	GCCGCTGGAAGCAGTTTCTTCTTGTGTTTAATGGGTACTCGCCCTGATATCCAGGAAAAA
381	A A G S S F F L C L M G T R P D I Q E K
1201	GTAGTGGAGGAATTGAACACCATTTTCAAAGGCTCTGATCGTCCGTGTACTTTCCAAGAT
401	V V E E L N T I F K G S D R P C T F Q D
1261	ACCTTGAGATGAAATATTTGGAACGTTGTATTATGGAAACTCTTCGTATGTACCCCCCG
421	T L E M K Y L E R C I M E T L R M Y P P
1321	GTGCCAATGATTGCACGTCAGATCAAAGAGGATATTGTATTACCATCCACCAACGCCATT
441	V P M I A R Q I K E D I V L P S T N A I
1381	GTACCGGCTGGCTGCACCATCGTAATTGGAACGTTCAAGTTACACCGTAACCCAACCGTA
461	V P A G C T I V I G T F K L H R N P T V
1441	TACCCAAATCCGGACGAATACAACCCCGACAACCTTCCTACCGGAGAAATCAGCAAACCGT
481	Y P N P D E Y N P D N F L P E K S A N R
1501	CACTACTACGCTTACGTTCCATTTCAGCGCTGGACCTCGTAGCTGCGTTGGACGTAAATAC
501	H Y Y A Y V P F S A G P R S C V G R K Y
1561	GCCATGTTGAAATTGAAAATCTTACTTTCCACCATCTTACGTAATTTCCACGTTTCGCGCT
521	A M L K L K I L L S T I L R N F H V R A
1621	TCGAAAAACCAAACCGAATGGCAATTACAAGCGGATATCATTTTGAACGAACTGATGGT
541	S K N Q T E W Q L Q A D I I L K R T D G
1681	TTAGAATCACTTTGGAGCCGAGAAAGAAGACTAAATTGGTGGCATAA
561	F R I T L E P R K K T K L V A *

K. Nucleotide and deduced amino acid sequences of PsCYP305A22 from *P. solenopsis*

1	GACGCAACTTTTCACTGCCTATGTTTTAAAGGAATACAAAACACCCACAGTTTTCAGTCATG
1	D A T F T A Y V L K E Y K T P T V S V M
61	TCGCTTTTTTATTATTGCTTGCATTTTTCATCATCACAGTTTATATTTGATCTCAACCGTG
21	S L F I I A C I F I I T V L Y L I S T V
121	ATAAAGCCATCAAATTATCCTCCAGGTCCCAGTCGATTACCTATTGTTGGGAACACGTTT
41	I K P S N Y P P G P S R L P I V G N T F
181	TTGATCAAGAAATTAAGCAAAGAATTAGGTGGTCAATTCAAAGCTCTTTTGAAGCTGCAT
61	L I K K L S K E L G G Q F K A L L K L H
241	GAAGATTACAAGTCAAATATTATAGGATTGAAATTAGGCGGTGATCAATATGTTGTGGTT
81	E D Y K S N I I G L K L G G D Q Y V V V
301	TTTGGACGTAAATTGGTGCAACAGGTGTTTACCAAGGATGAATTCCAAGGCAGACCAGAT
101	F G R K L V Q Q V F T K D E F Q G R P D
361	GGTTTCTTTATTTCGGTTAAGAACCATGGGTACCAAAAAAGGAATTACCATGACTGATGGT
121	G F F I R L R T M G T K K G I T M T D G
421	AAATTATGGCACGAACAAAGAAATTTTCGCTGAAAGACAGCTCAGACAAGTCTCGGC
141	K L W H E Q R N F A E R Q L R Q L G F G
481	AAATTAGTTACCGAAAATCTCATCAAAGATGAGCTAAACAAATTATTGAATTCTTTCGGA
161	K L V T E N L I K D E L N K L L N S F G
541	GAAAAACAAGAAGACATTTTCGCTTAATCAAAAACCTTTCATCAGCCTTCTTGAACGTATTG
181	E K Q E D I S L N Q K L S S A F L N V L
601	TGGACAATCACTGGGGGCAAGCAGTTCTCGAAAGATGACGATAAATTACCAGCGTTGCTT
201	W T I T G G K Q F S K D D D K L P A L L
661	AATTTATTACGCGAACGTAGCAAGGCTTTTGATATGGCTGGTGGGTATTGAATCAACTA
221	N L L R E R S K A F D M A G G L L N Q L
721	CCGTGGTTGAGATTTATCGCTCCTGATTATTGTGGTTATACCTGTATTCAAAGATTGAAT
241	P W L R F I A P D Y C G Y T C I Q R L N
781	TCGAAATTATACGAGTTGTTCCAAGAAATCATTGACGAACACAAAAGAAGTATTACCAAC
261	S K L Y E L F Q E I I D E H K R T I T N
841	GAGACTAGGGATTTTGTGTTGATGCTTATTTACACGAAAAAGAATCTGCTAATCCAGACACC
281	E T R D F V D A Y L H E K E S A N P D T
901	AGCACATTCACCGATGATCAGCTAGTCGCCATATGTCTAGATTTCTTCATTGCTGGAGCT
301	S T F T D D Q L V A I C L D F F I A G A
961	CTTACCCTAGTTATACTTTTAGATTTTGCAGTCTTAGCCACCGTCAGCCATCCGCATGTG
321	L T T S Y T L D F A V L A T V S H P H V
1021	CAACAAAACTTCACGAAGAAATCGACAAAGTATTAAAGCGTAAACAAATGCCATCGATT
341	Q Q K L H E E I D K V L K R K Q M P S I
1081	GAAGACAAATTCAAATTACCGTATGTCGAAGCGTTGCTCCTTGAATCACAGAGATTTCAA
361	E D K F K L P Y V E A L L L E S Q R F Q
1141	CACGTTGTACCAACTGCTGGTCCAAGAAGAGTGTTGAAAGATACTACTTTAGATGGATAC
381	H V V P T A G P R R V L K D T T L D G Y
1201	CGTATTCCAAAGGATAACAATCGTTTTAATGAGTTTGAGATCGATTCACTACGACCAGCAA
401	R I P K D T I V L M S L R S I H Y D Q Q
1261	AGATGGAGTGACCCAGAGGTATTCAGACCAGAAAGATTTCTCACTGAAGATGGACAACCT
421	R W S D P E V F R P E R F L T E D G Q L
1321	ATCCCTGATGAAGGCTTATGTACATTTGGGTTAGGAAAAAGACGATGCCCTGGTGAAATT
441	I P D E G L C T F G L G K R R C P G E I
1381	CTAGCGAAAAGTTTCTTATTTTATGGCGTTTACCGCGTTATTCAACCATTATAAAATCACA
461	L A K S F L F M A F T A L F N H Y K I T
1441	TTTCCACCTGGTAAAGAGCCTTCATCTAAAATACCAGCGGCTGGAATATTACTAACGCCT
481	F P P G K E P S S K I P A A G I L L T P
1501	CAACCTTACTCGGTAAATTTGCAAGCTCGTGGTGATTATGATTTGTGA
501	Q P Y S V N L Q A R G D Y D L *