

FIGURE 1A

AMY310767 - *ALOPECURUS MYOSUROIDES* PLASTIDAL ACCASE CDNA
(SEQ ID NO: 1)

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1 TCGATAAACT TCCTGTTGCA TGTCTCTATC TCTATGGACT
AACGGTTCCT ATGTGCATGC
61 ATCTGTCAGG TTTCCAGACC TGGGGTTTAC AATCAGTTTA
TGGCAGTCTG TGTTTGAAGA
121 AACTGCAAC TCTGCTGTCT GTCCAAAGGG AGGACGATGG
GATCCACACA TCTGCCCATT
181 GTCGGGTTTA ATGCATCCAC AACACCATCG CTATCCACTC
TTCGCCAGAT AAATCAGCT
241 GCTGCTGCAT TCCAATCTTC GTCCCCTTCA AGGTCATCCA
AGAAGAAAAG CCGACGTGTT
301 AAGTCAATAA GGGATGATGG CGATGGAAGC GTGCCAGACC
CTGCAGGCCA TGGCCAGTCT
361 ATTGCGCAAG GTCTCGCTGG CATCATCGAC CTCCCCAAGG
AGGGCGCATC AGCTCCAGAT
421 GTGGACATTT CACATGGGTC TGAAGACCAC AAGGCCTCCT
ACCAAATGAA TGGGATACTG
481 AATGAATCAC ATAACGGGAG GCACGCCTCT CTGTCTAAAG
TTTATGAATT TTGCACGGAA
541 TTGGGTGGAA AAACACCAAT TCACAGTGTA TTAGTCGCCA
ACAATGGAAT GGCAGCAGCT
601 AAGTTCATGC GGAGTGTCGG GACATGGGCT AATGATACAT
TTGGGTCAGA GAAGGCGATT
661 CAGTTGATAG CTATGGCAAC TCCGGAAGAC ATGAGAATAA
ATGCAGAGCA CATTAGAATT
721 GCTGATCAGT TTGTTGAAGT ACCTGGTGGA ACAAACAATA
ACAACTATGC AAATGTCCAA
781 CTCATAGTGG AGATAGCAGA GAGAACTGGT GTCTCCGCCG
TTTGGCCTGG TTGGGGCCAT
841 GCATCTGAGA ATCCTGAACT TCCAGATGCA CTAAGTGCAA
AAGGAATTGT TTTTCTTGGG
901 CCACCAGCAT CATCAATGAA CGCACTAGGC GACAAGGTTG
GTTGAGTCTT CATTGCTCAA
961 GCAGCAGGGG TTCCCACTCT TGCTTGAGT GGATCACATG
TGGAAATTCC ATTAGAACTT
1021 TGTTTGGACT CGATACCTGA GGAGATGTAT AGGAAAGCCT
GTGTTACAAC CGCTGATGAA
1081 GCAGTTGCAA GTTGTGAGAT GATTGGTTAC CCTGCCATGA
TCAAGGCATC CTGGGGTGGT
1141 GGTGGTAAAG GGATTAGAAA GGTTAATAAT GATGACGAGG
TGAAAGCACT GTTTAAGCAA
1201 GTACAGGGTG AAGTTCCTGG CTCCCCGATA TTTATCATGA
GACTTGATC TCAGAGTCGT
1261 CATCTTGAAG TCCAGCTGCT TTGTGATGAA TATGGCAATG
TAGCAGCACT TCACAGTCGT
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FIGURE 1A CONTINUED

1321 GATTGCAGTG TGCAACGACG ACACCAAAG ATTATCGAGG
AAGGACCAGT TACTGTTGCT
1381 CCTCGTGAAA CAGTGAAAGA GCTAGAGCAA GCAGCAAGGA
GGCTTGCTAA GGCCGTGGGT
1441 TACGTCGGTG CTGCTACTGT TGAATATCTC TACAGCATGG
AGACTGGTGA ATACTATTTT
1501 CTGGAGCTTA ATCCACGGTT GCAGGTTGAG CACCCAGTCA
CCGAGTCGAT AGCTGAAAGTA
1561 AATTTGCCTG CAGCCCAAGT TGCAGTTGGG ATGGGTATAC
CCCTTTGGCA GATTCCAGAG
1621 ATCAGACGTT TCTACGGAAT GGACAATGGA GGAGGCTATG
ATATTTGGAG GAAAACAGCA
1681 GCTCTCGCTA CTCCATTCAA CTTTGATGAA GTAGATTCTC
AATGGCCGAA GGGTCATTGT
1741 GTGGCAGTTA GGATAACCAG TGAGAATCCA GATGATGGAT
TCAAGCCTAC TGGTGGAAAA
1801 GTAAAGGAGA TAAGTTTTAA AAGTAAGCCA AATGTCTGGG
GATATTTCTC AGTTAAGTCT
1861 GGTGGAGGCA TTCATGAATT TGCGGATTCT CAGTTTGGAC
ACGTTTTTGC CTATGGAGAG
1921 ACTAGATCAG CAGCAATAAC CAGCATGTCT CTTGCACTAA
AAGAGATTCA AATTCGTGGA
1981 GAAATTCATA CAAACGTTGA TTACACGGTT GATCTCTTGA
ATGCCCCAGA CTTCAGAGAA
2041 AACACGATCC ATACCGGTTG GCTGGATACC AGAATAGCTA
TGCGTGTTCA AGCTGAGAGG
2101 CCTCCCTGGT ATATTTTCACT GGTGAGGGA GCTCTATATA
AAACAATAAC CACCAATGCG
2161 GAGACCGTTT CTGAATATGT TAGCTATCTC ATCAAGGGTC
AGATTCCACC AAAGCACATA
2221 TCCCTTGTCC ATTCAACTAT TTCTTTGAAT ATAGAGGAAA
GCAAATATAC AATTGAGATT
2281 GTGAGGAGTG GACAGGGTAG CTACAGATTG AGACTGAATG
GATCACTTAT TGAAGCCAAT
2341 GTACAAACAT TATGTGATGG AGGCCTTTTA ATGCAGCTGG
ATGGAAATAG CCATGTTATT
2401 TATGCTGAAG AAGAAGCGGG TGGTACACGG CTTCTTATTG
ATGGAAAAAC ATGCTTGCTA
2461 CAGAATGACC ATGATCCGTC AAGGTTATTA GCTGAGACAC
CCTGCAAAC TCTTCGTTTC
2521 TTGATTGCCG ATGGTGCTCA TGTTGATGCT GATGTACCAT
ACGCGGAAGT TGAGGTTATG
2581 AAGATGTGCA TGCCCTCTT GTCGCTGCT GCTGGTGCTA
TTAATGTTTT GTTGTCTGAG

FIGURE 1A CONTINUED

2641 GGCCAGGCGA TGCAGGCTGG TGATCTTATA GCGAGACTTG
ATCTCGATGA CCCTTCTGCT
2701 GTGAAGAGAG CCGAGCCATT TGAAGGATCT TTTCCAGAAA
TGAGCCTTCC TATTGCTGCT
2761 TCTGGCCAAG TTCACAAAAG ATGTGCTGCA AGTTTGAACG
CTGCTCGAAT GGTCCCTTGCA
2821 GGATATGACC ATGCGGCCAA CAAAGTTGTG CAAGATTTGG
TATGGTGCCT TGATACACCT
2881 GCTCTTCCTT TCCTACAATG GGAAGAGCTT ATGTCTGTTT
TAGCAACTAG ACTTCCAAGA
2941 CGTCTTAAGA GCGAGTTGGA GGGCAAATAC AATGAATACA
AGTTAAATGT TGACCATGTG
3001 AAGATCAAGG ATTTCCCTAC CGAGATGCTT AGAGAGACAA
TCGAGGAAAA TCTTGCAATG
3061 GTTTCCGAGA AGGAAATGGT GACAATTGAG AGGCTTGTTG
ACCTCTGAT GAGCCTGCTG
3121 AAGTCATACG AGGGTGGGAG AGAAAGCCAT GCCCACTTTA
TTGTCAAGTC CCTTTTTGAG
3181 GAGTATCTCT CGGTTGAGGA ACTATTCAGT GATGGCATTC
AGTCTGACGT GATTGAACGC
3241 CTGCGCCTAC AATATAGTAA AGACCTCCAG AAGGTTGTAG
ACATTGTTTT GTCTCACCAG
3301 GGTGTGAGAA ACAAACAAA GCTGATACTC GCGCTCATGG
AGAAACTGGT CTATCCAAAC
3361 CCTGCTGCCT ACAGAGATCA GTTGATTTCGC TTTTCTTCCC
TCAACCATAA AAGATATTAT
3421 AAGTTGGCTC TTAAAGCTAG TGAACCTCTT GAACAAACCA
AGCTCAGCGA ACTCCGCACA
3481 AGCATTGCAA GGAACCTTTC AGCGCTGGAT ATGTTCACCG
AGGAAAAGGC AGATTTCTCC
3541 TTGCAAGACA GAAAATTGGC CATTAATGAG AGCATGGGAG
ATTTAGTCAC TGCCCCACTG
3601 CCAGTTGAAG ATGCACTTGT TTCTTTGTTT GATTGTACTG
ATCAAACCTCT TCAGCAGAGA
3661 GTGATTCAGA CATACATATC TCGATTATAC CAGCCTCAAC
TTGTGAAGGA TAGCATCCAG
3721 CTGAAATATC AGGATTCTGG TGTATTGCT TTATGGGAAT
TCACTGAAGG AAATCATGAG
3781 AAGAGATTGG GTGCTATGGT TATCCTGAAG TCACTAGAAT
CTGTGTCAAC AGCCATTGGA
3841 GCTGCTCTAA AGGATGCATC ACATTATGCA AGCTCTGCGG
GCAACACGGT GCATATTGCT
3901 TTGTTGGATG CTGATACCCA ACTGAATACA ACTGAAGATA
GTGGTGATAA TGACCAAGCT

FIGURE 1A CONTINUED

3961 CAAGACAAGA TGGATAAACT TTCTTTTGTA CTGAAACAAG
ATGTTGTCAT GGCTGATCTA
4021 CGTGCTGCTG ATGTCAAGGT TGTTAGTTGC ATTGTTCAAA
GAGATGGAGC AATCATGCCT
4081 ATGCGCCGTA CCTTCCTCTT GTCAGAGGAA AAACCTTTGTT
ACGAGGAAGA GCCGATTCTT
4141 CGGCATGTGG AGCCTCCACT TTCTGCACTT CTTGAGTTGG
ATAAATTGAA AGTGAAAGGA
4201 TACAATGAGA TGAAGTATAC ACCGTCACGT GATCGTCAGT
GGCATATATA CACACTTAGA
4261 AATACTGAAA ATCCAAAAAT GCTGCACAGG GTATTTTTTC
GAACACTTGT CAGACAACCC
4321 AGTGCAGGCA ACAGGTTTAC ATCAGACCAT ATCACTGATG
TTGAAGTAGG ACACGCAGAG
4381 GAACCTCTTT CATTTACTTC AAGCAGCATA TTAAAAATCGT
TGAAGATTGC TAAAGAAGAA
4441 TTGGAGCTTC ACGCGATCAG GACTGGCCAT TCTCATATGT
ACTTGTGCAT ATTGAAAGAG
4501 CAAAAGCTTC TTGACCTTGT TCCTGTTTCA GGGAACTGT
TTGTGGATGT TGGTCAAGAT
4561 GAAGCTACTG CATGCTCTCT TTTGAAAGAA ATGGCTTTAA
AGATACATGA ACTTGTGGT
4621 GCAAGAATGC ATCATCTTTC TGTATGCCAG TGGGAAGTGA
AACTTAAGTT GGTGAGCGAT
4681 GGGCCTGCCA GTGGTAGCTG GAGAGTTGTA ACAACCAATG
TTACTGGTCA CACCTGCACT
4741 GTGGATATCT ACCGGGAGGT CGAAGATACA GAATCACAGA
AACTAGTATA CCACTCCACC
4801 GCATTGTCAT CTGGTCCTTT GCATGGTGTT GCACTGAATA
CTTCGTATCA GCCTTTGAGT
4861 GTTATTGATT TAAAACGTTG CTCTGCCAGG AACAACAAAA
CTACATACTG CTATGATTTT
4921 CCATTGACAT TTGAAGCTGC AGTGCAGAAG TCGTGGTCTA
ACATTTCCAG TGAAAACAAC
4981 CAATGTTATG TTAAAGCGAC AGAGCTTGTG TTTGCTGAAA
AGAATGGGTC GTGGGGCACT
5041 CCTATAATTC CTATGCAGCG TGCTGCTGGG CTGAATGACA
TTGGTATGGT AGCCTGGATC
5101 TTGGACATGT CCACTCCTGA ATTTCCCAGC GGCAGACAGA
TCATTGTTAT CGCAAATGAT
5161 ATTACATTTA GAGCTGGATC ATTTGGCCCA AGGGAAGATG
CATTTTTTCGA AGCTGTAACC
5221 AACCTGGCTT GTGAGAAGAA GCTTCCACTT ATCTACTTGG
CTGCAAACCTC TGGTGCTCGG

FIGURE 1A CONTINUED

5281 ATTGGCATTG CTGATGAAGT AAAATCTTGC TTCCGTGTTG
GATGGACTGA TGATAGCAGC
5341 CCTGAACGTG GATTTAGGTA CATTTATATG ACTGACGAAG
ACCATGATCG TATTGGCTCT
5401 TCAGTTATAG CACACAAGAT GCAGCTAGAT AGTGGCGAGA
TCAGGTGGGT TATTGATTCT
5461 GTTGTGGGAA AAGAGGATGG ACTAGGTGTG GAGAACATAC
ATGGAAGTGC TGCTATTGCC
5521 AGTGCCTATT CTAGGGCGTA CGAGGAGACA TTTACACTTA
CATTCGTTAC TGGACGAACT
5581 GTTGGAATCG GAGCCTATCT TGCTCGACTT GGCATACGGT
GCATACAGCG TATTGACCAG
5641 CCCATTATTT TGACCGGGTT TTCTGCCCTG AACAAAGCTTC
TTGGGCGGGA GGTGTACAGC
5701 TCCCACATGC AGTTGGGTGG TCCCAAAATC ATGGCGACGA
ATGGTGTTGT CCATCTGACT
5761 GTTCCAGATG ACCTTGAAGG TGTTTCTAAT ATATTGAGGT
GGCTCAGCTA TGTTCCCTGCA
5821 AACATTGGTG GACCTCTTCC TATTACAAAA TCTTTGGACC
CAATAGACAG ACCCGTTGCA
5881 TACATCCCTG AGAATACATG TGATCCTCGT GCAGCCATCA
GTGGCATTGA TGACAGCCAA
5941 GGGAAATGGT TGGGTGGCAT GTTTGACAAA GACAGTTTTG
TGGAGACATT TGAAGGATGG
6001 GCGAAGACAG TAGTTACTGG CAGAGCAAAA CTTGGAGGGA
TTCTGTGTTG TGTTATAGCT
6061 GTGGAGACAC AGACCATGAT GCAGCTCGTC CCCGCTGATC
CAGGCCAGCC TGATTCCCAC
6121 GAGCGGTCTG TTCCTCGTGC TGGGCAAGTT TGGTTTCCAG
ATTCTGCTAC CAAGACAGCG
6181 CAGGCGATGT TGGACTTCAA CCGTGAAGGA TTACCTCTGT
TCATACTTGC TAACTGGAGA
6241 GGCTTCTCTG GAGGGCAAAG AGATCTTTTT GAAGGAATTC
TGCAGGCTGG GTCAACAATT
6301 GTTGAGAACC TTAGGACATA CAATCAGCCT GCCTTTGTAT
ATATCCCCAA GGCTGCAGAG
6361 CTACGTGGAG GAGCCTGGGT CGTGATTGAT AGCAAGATAA
ACCCAGATCG CATCGAGTGC
6421 TATGCTGAGA GGA CTGCAAAA GGGTAATGTT CTCGAACCTC
AAGGGTTGAT TGAGATCAAG
6481 TTCAGGTCAG AGGAACTCAA AGAATGCATG GGTAGGCTTG
ATCCAGAATT GATAGATCTG
6541 AAAGCAAGAC TCCAGGGAGC AAATGGAAGC CTATCTGATG
GAGAATCCCT TCAGAAGAGC

FIGURE 1A CONTINUED

6601 ATAGAAAGCTC GGAAGAAACA GTTGCTGCCT CTGTACACCC
AAATCGCGGT ACGTTTTGCG
6661 GAATTGCACG ACACTTCCCT TAGAATGGCT GCTAAAGGTG
TGATCAGGAA AGTTGTAGAC
6721 TGGGAAGACT CTCGGTCTTT CTTCTACAAG AGATTACGGA
GGAGGCTATC CGAGGACGTT
6781 CTGGCAAAGG AGATTAGAGG TGTAATTGGT GAGAAGTTTC
CTCACAAATC AGCGATCGAG
6841 CTGATCAAGA AATGGTACTT GGCTTCTGAG GCAGCTGCAG
CAGGAAGCAC CGACTGGGAT
6901 GACGACGATG CTTTTGTGCG CTGGAGGGAG AACCCTGAAA
ACTATAAGGA GTATATCAAA
6961 GAGCTTAGGG CTCAAAGGGT ATCTCGGTTG CTCTCAGATG
TTGCAGGCTC CAGTTCGGAT
7021 TTACAAGCCT TGCCGCAGGG TCTTTCCATG CTACTAGATA
AGATGGATCC CTCTAAGAGA
7081 GCACAGTTTA TCGAGGAGGT CATGAAGGTC CTGAAATGAT
CAAATGATAC CAACACATCC
7141 AATACAGTAT GTGCATGATA TCTGTTTCTC TTGAAGTACA
TATATAGATG GATACAAGGC
7201 GGCTGTAACT GATGGTAGCT AATCTGGGCC AACCATTACT
TTTGTGAACT TGCTGGTGGC
7261 CTTTATTATT CAAGGCACAG CTCGCCTTCG GACCCCTCC
GGCTGGTTGA TGATGAGTGT
7321 AACTGGATGT GTTAGTTCTG CTGCCACAGA ATTCGAGAAG
GATAGGGGCA TGCGGGTTTT
7381 GCCTCCTGTT GGCAAGAACA CTGGTGATTT TGAGTTCTTG
TTATGTGGAC TGTGGTAGTC
7441 TTGTTTCGCT GTAGTTCTGT GATGTTCTAT CTCCTGTAAT
TCTAGTCTTG GGAGAGTGAT
7501 TCAGATGTCC ATTCAATTTT GAACTTGAAT AATAATATGC
TTTGTAGGCC TATGCGTACC
7561 AGTATGTGGA ATAAATGTTC GTTGAGTTA

FIGURE 1B
AMY310767 - *ALOPECURUS MYOSUROIDES* PLASTIDAL ACCASE
TRANSLATED PROTEIN(SEQ ID NO: 2)

1 MGSTHLPIVG FNASTTPSLS TLRQINSAAA AFQSSSPSR
SKKKSRRVK
51 IRDDGDGSPV DPAGHGQSIR QGLAGIIDLP KEGASAPDVD
ISHGSEDHKA
101 SYQMNGILNE SHNGRHASLS KVEYFCTELG GKTPIHSVLV
ANNGMAAAKF
151 MRSVRTWAND TFGSEKAIQL IAMATPEDMR INAEHIRIAD
QFVEVPGGTN
201 NNNYANVQLI VEIAERTGVS AVWPGWGHAS ENPELPDALT
AKGIVFLGPP
251 ASSMNALGDK VGSALIAQAA GVPTLAWSGS HVEIPLLELCL
DSIPEEMYRK
301 ACVTTADEAV ASCQMIGYPA MIKASWGGGG KGIRKVNND
EVKALFKQVQ
351 GEVPGSPIFI MRLASQSRHL EVQLLCDEYG NVAALHSRDC
SVQRRHQKII
401 EEGPVTVAPR ETVKELEQAA RRLAKAVGYV GAATVEYLYS
METGEYYFLE
451 LNPRLQVEHP VTESIAEVNL PAAQVAVGMG IPLWQIPEIR
RFYGMNNGG
501 YDIWRKTAAL ATPFNFDEVD SQWPKGHCVA VRITSENPD
GFKPTGGKVK
551 EISFKSKPNV WGYFSVKSGG GIHEFADSQF GHVFAYGETR
SAAITMSLA
601 LKEIQIRGEI HTNVDYTVDL LNAPDFRENT IHTGWLDTRI
AMRVQAERPP
651 WYISVVGGAL YKTITTNAET VSEYVSYLIK GQIPPKHISL
VHSTISLNIE
701 ESKYTIEIVR SGQGSYRLRL NGSLEIANVQ TLCDGGLLMQ
LDGNSHVIYA
751 EEEAGGTRLL IDGKTCLLQN DHDPsrLLAE TPCKLLRFLI
ADGAHVDAADV
801 PYAEVEVMKM CMPLLSAAG VINVLLSEGQ AMQAGDLIAR
LDLDDPSAVK
851 RAEPFEGSFP EMSLPAAASG QVHKRCAASL NAARMVLAGY
DHAANKVVQD
901 LVWCLDTPAL PFLQWEELMS VLATRLPRRL KSELEGKYNE
YKLNVDHVKI
951 KDFPTEMLRE TIEENLACVS EKEMVTIERL VDPLMSLLKS
YEGGRESHAH
1001 FIVKSLFEEY LSVEELFSDG IQSDVIERLR LQYSKDLQKV
VDIVLSHQGV
1051 RNKTKLILAL MEKLVYPNPA AYRDQLIRFS SLNHKRYYKL
ALKASELLEQ
1101 TKLSELRTSI ARNLSALDMF TEEKADFSLQ DRKLAINESM
GDLVTAPLPV

FIGURE 1B CONTINUED

1151 EDALVSLFDC TDQTLQQRVI QTYISRLYQP QLVKDSIQLK
YQDSGVIALW
1201 EFTEGNHEKR LGAMVILKSL ESVSTAIGAA LKDASHYASS
AGNTVHIALL
1251 DADTQLNTTE DSGDNDQAQD KMDKLSFVLK QDVVMADLRA
ADVKKVSCIV
1301 QRDGAIMPMR RTFLLSEEKL CYEEEPILRH VEPPLSALLE
LDKLVKGYN
1351 EMKYTPSRDR QWHIYTLRNT ENPKMLHRVF FRTLVRQPSA
GNRFTSDHIT
1401 DVEVGHAEEP LSFTSSSILK SLKIAKEELE LHAIRTGSHS
MYLCILKEQK
1451 LLDLVPVSGN TVVDVGQDEA TACSLLEKEMA LKIHVLGVAR
MHLSVCQWE
1501 VKLKLVSDBG ASGSWRVVT NVTGHTCTVD IYREVEDTES
QKLVYHSTAL
1551 SSGPLHGVAL NTSYQPLSVI DLKRCSARNN KTTYCYDFPL
TFEAAVQKSW
1601 SNISSENNQC YVKATELVFA EKNQSWGTPI IPMQRAAGLN
DIGMVAWILD
1651 MSTPEFPSGR QIIVIANIT FRAGSFGPRE DAFPEAVTNL
ACEKKLPLIY
1701 LAANSGARIG IADEVKSCFR VGWTDSSPE RGFRIYMTD
EDHDRIGSSV
1751 IAHKMLDQSG EIRWVIDSVV GKEDGLGVEN IHGSAAIASA
YSRAYEETFT
1801 LTFVTGRTVG IGAYLARLGI RCIQRIDQPI ILTGFSALNK
LLGREVYSSH
1851 MQLGGPKIMA TNGVVHLTVP DDLEGVSNIL RWLSYVPANI
GGPLPITKSL
1901 DPIDRPVAYI PENTCDPRAA ISGIDDSQGK WLGGMFDKDS
FVETFEQWAK
1951 TVVTGRAKLG GIPVGVIARE TQTMQLVPA DPGQPDSEH
SVPRAGQVWF
2001 PDSATKTAQA MLDFNREGLP LFIANWRGF SGGQRLDFEG
ILQAGSTIVE
2051 NLRTYNQPAF VYIPKAAELR GGAWVIDSK INPDRIECYA
ERTAKGNVLE
2101 PQGLIEIKFR SEELKECMGR LDPELIDLKA RLQGANGLS
DGESLQKSIE
2151 ARKKQLLPLY TQIAVRFAEL HDTSLRMAAK GVIRKVVDE
DSRSFFYKRL
2201 RRRLSEDLA KEIRGVIGEK FPHKSAIELI KKWYLASEAA
AAGSTDWDDD
2251 DAFVAWREN ENYKEYIKEL RAQRVSRLLS DVAGSSSDLQ
ALPQGLSMLL
2301 DKMDPSKRAQ FIEEVMKVLK

FIGURE 2A
ORYZA SATIVA PLASTIDAL ACCASE OS05G22940 RICE CDNA (CYPRESS)
(SEQ ID NO: 3)

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1 ATGACATCCA CACATGTGGC GACATTGGGA GTTGGTGCCC
AGGCACCTCC TCGTCACCAG
61 AAAAAGTCAG CTGGCACTGC ATTTGTATCA TCTGGGTCAT
CAAGACCCTC ATACCGAAAG
121 AATGGTCAGC GTACTCGGTC ACTTAGGGAA GAAAGCAATG
GAGGAGTGTC TGATTCCAAA
181 AAGCTTAACC ACTCTATTCG CCAAGGTCTT GCTGGCATCA
TTGACCTCCC AAATGACGCA
241 GCTTCAGAAG TTGATATTTT ACATGGTTCC GAAGATCCCCA
GGGGGCCTAC GGTCCCAGGT
301 TCCTACCAAA TGAATGGGAT TATCAATGAA ACACATAATG
GGAGGCATGC TTCAGTCTCC
361 AAGGTTGTTG AGTTTTGTAC GGCACTTGGT GGCAAAACAC
CAATTCACAG TGTATTAGTG
421 GCCAACAATG GAATGGCAGC AGCTAAGTTC ATGCGGAGTG
TCCGAACATG GGCTAATGAT
481 ACTTTTGGAT CAGAGAAGGC AATTCAGCTG ATAGCTATGG
CAACTCCGGA GGATCTGAGG
541 ATAAATGCAG AGCACATCAG AATTGCCGAT CAATTTGTAG
AGGTACCTGG TGGAACAAAC
601 AACAACAAC ATGCAAATGT CCAACTCATA GTGGAGATAG
CAGAGAGAAC AGGTGTTTCT
661 GCTGTTTGGC CTGGTTGGGG TCATGCATCT GAGAATCCTG
AACTTCCAGA TGCCTGACT
721 GCAAAAGGAA TTGTTTTTCT TGGGCCACCA GCATCATCAA
TGCATGCATT AGGAGACAAG
781 GTTGGCTCAG CTCTCATTGC TCAAGCAGCT GGAGTTCCAA
CACTTGCTTG GAGTGGATCA
841 CATGTGGAAG TTCCTCTGGA GTGTTGCTTG GACTCAATAC
CTGATGAGAT GTATAGAAAA
901 GCTTGTGTTA CTACCACAGA GGAAGCAGTT GCAAGTTGTC
AGGTGGTTGG TTATCCTGCC
961 ATGATTAAGG CATCTTGGGG TGGTGGTGGT AAAGGAATAA
GGAAGGTTCA TAATGATGAT
1021 GAGGTTAGGA CATTATTTAA GCAAGTTCAA GGCGAAGTAC
CTGGTTCCCC AATATTTATC
1081 ATGAGGCTAG CTGCTCAGAG TCGACATCTT GAAGTTCAGT
TGCTTTGTGA TCAATATGGC
1141 AACGTAGCAG CACTTCACAG TCGAGATTGC AGTGTACAAC
GGCGACACCA AAAGATAATC
1201 GAGGAAGGAC CAGTTACTGT TGCTCCTCGT GAGACTGTGA
AAGAGCTTGA GCAGGCAGCA
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FIGURE 2A CONTINUED

1261 CGGAGGCTTG CTAAAGCTGT GGGTTATGTT GGTGCTGCTA
CTGTTGAATA CCTTTACAGC
1321 ATGGAAACTG GTGAATATTA TTTTCTGGAA CTTAATCCAC
GGCTACAGGT TGAGCATCCT
1381 GTCACTGAGT GGATAGCTGA AGTAAATTTG CCTGCGGCTC
AAGTTGCTGT TGGAAATGGGT
1441 ATACCCCTTT GGCAGATTCC AGAGATCAGG CGCTTCTACG
GAATGAACCA TGGAGGAGGC
1501 TATGACCTTT GGAGGAAAAC AGCAGCTCTA GCGACTCCAT
TTAACTTTGA TGAAGTAGAT
1561 TCTAAATGGC CAAAAGGCCA CTGCGTAGCT GTTAGAATAA
CTAGCGAGGA TCCAGATGAT
1621 GGGTTTAAAG CTA CTACTGGTGG AAAAGTAAAG GAGATAAGTT
TCAAGAGTAA ACCAAATGTT
1681 TGGGCCTATT TCTCAGTAAA GTCTGGTGGA GGCATCCATG
AATTCGCTGA TTCTCAGTTC
1741 GGACATGTTT TTGCGTATGG AACTACTAGA TCGGCAGCAA
TAACTACCAT GGCTCTTGCA
1801 CTAAAAGAGG TTCAAATTCG TGGAGAAATT CATTCAAACG
TAGACTACAC AGTTGACCTA
1861 TTAAATGCCT CAGATTTTAG AGAAAATAAG ATTCATACTG
GTTGGCTGGA TACCAGGATA
1921 GCCATGCGTG TTCAAGCTGA GAGGCCTCCA TGGTATATTT
CAGTCGTTGG AGGGGCTTTA
1981 TATAAAACAG TAACTGCCAA CACGGCCACT GTTTCTGATT
ATGTTGGTTA TCTTACCAAG
2041 GGCCAGATTC CACCAAAGCA TATATCCCTT GTCTATACGA
CTGTTGCTTT GAATATAGAT
2101 GGGAAAAAAT ATACAATCGA TACTGTGAGG AGTGGACATG
GTAGCTACAG ATTGCGAATG
2161 AATGGATCAA CGGTTGACGC AAATGTACAA ATATTATGTG
ATGGTGGGCT TTTAATGCAG
2221 CTGGATGGAA ACAGCCATGT AATTTATGCT GAAGAAGAGG
CCAGTGGTAC ACGACTTCTT
2281 ATTGATGGAA AGACATGCAT GTTACAGAAT GACCATGACC
CATCAAAGTT ATTAGCTGAG
2341 ACACCATGCA AACTTCTTCG TTTCTTGATT GCTGATGGTG
CTCATGTTGA TGCTGATGTA
2401 CCATATGCGG AAGTTGAGGT TATGAAGATG TGCATGCCCC
TCTTATCACC CGCTTCTGGT
2461 GTCATACATG TTGTAATGTC TGAGGGCCAA GCAATGCAGG
CTGGTGATCT TATAGCTAGG
2521 CTGGATCTTG ATGACCCTTC TGCTGTTAAG AGAGCTGAGC
CGTTCGAAGA TACTTTTCCA

FIGURE 2A CONTINUED

2581 CAAATGGGTC TCCCTATTGC TGCTTCTGGC CAAGTTCACA
AATTATGTGC TGCAAGTCTG
2641 AATGCTTGTC GAATGATCCT TCGGGGTAT GAGCATGATA
TTGACAAGGT TGTGCCAGAG
2701 TTGGTATACT GCCTAGACAC TCCGGAGCTT CCTTTCCTGC
AGTGGGAGGA GCTTATGTCT
2761 GTTTTAGCAA CTAGACTTCC AAGAAATCTT AAAAGTGAGT
TGGAGGGCAA ATATGAGGAA
2821 TACAAAGTAA AATTTGACTC TGGGATAATC AATGATTTCC
CTGCCAATAT GCTACGAGTG
2881 ATAATTGAGG AAAATCTTGC ATGTGGTTCT GAGAAGGAGA
AGGCTACAAA TGAGAGGCTT
2941 GTTGAGCCTC TTATGAGCCT ACTGAAGTCA TATGAGGGTG
GGAGAGAAAG TCATGCTCAC
3001 TTTGTTGTCA AGTCCCTTTT TGAGGAGTAT CTCTATGTTG
AAGAATTGTT CAGTGATGGA
3061 ATTCAGTCTG ATGTGATTGA GCGTCTGCGC CTTCAACATA
GTAAAGACCT ACAGAAGGTC
3121 GTAGACATTG TGTTGTCCCA CCAGAGTGTT AGAAATAAAA
CTAAGCTGAT ACTAAACTC
3181 ATGGAGAGTC TGGTCTATCC AAATCCTGCT GCCTACAGGG
ATCAATTGAT TCGCTTTTCT
3241 TCCCTTAATC ACAAAGCGTA TTACAAGTTG GCACTTAAAG
CTAGTGAAC TCTTGAACAA
3301 ACAAACCTTA GTGAGCTCCG TGCAAGAATA GCAAGGAGCC
TTTCAGAGCT GGAGATGTTT
3361 ACTGAGGAAA GCAAGGGTCT CTCCATGCAT AAGCGAGAAA
TTGCCATTAA GGAGAGCATG
3421 GAAGATTTAG TCACTGCTCC ACTGCCAGTT GAAGATGCGC
TCATTTCTTT ATTTGATTGT
3481 AGTGATACAA CTGTTCAACA GAGAGTGATT GAGACTTATA
TAGCTCGATT ATACCAGCCT
3541 CATCTTGTA AGGACAGTAT CAAAATGAAA TGGATAGAAT
CGGGTGTTAT TGCTTTATGG
3601 GAATTTCTTG AAGGGCATTT TGATGCAAGA AATGGAGGAG
CGGTTCTTGG TGACAAAAGA
3661 TGGGGTGCCA TGGTCATTGT CAAGTCTCTT GAATCACTTT
CAATGGCCAT TAGATTTGCA
3721 CTAAAGGAGA CATCACACTA CACTAGCTCT GAGGGCAATA
TGATGCATAT TGCTTTGTTG
3781 GGTGCTGATA ATAAGATGCA TATAATTCAA GAAAGTGGTG
ATGATGCTGA CAGAATAGCC
3841 AACTTCCCT TGATACTAAA GGATAATGTA ACCGATCTGC
ATGCCTCTGG TGTGAAAACA

FIGURE 2A CONTINUED

3901 ATAAGTTTCA TTGTTCAAAG AGATGAAGCA CGGATGACAA
TGCCTCGTAC CTTCTTTTGG
3961 TCTGATGAAA AGCTTTCTTA TGAGGAAGAG CCAATTCTCC
GGCATGTGGA ACCTCCTCTT
4021 TCTGCACTTC TTGAGTTGGA CAAGTTGAAA GTGAAAGGAT
ACAATGAAAT GAAGTATACC
4081 CCATCACGGG ATCGTCAATG GCATATCTAC ACACTTAGAA
ATACTGAAAA CCCCCAAATG
4141 TTGCACCGGG TATTTTTCCG AACCCCTGTC AGGCAACCCA
GTGTATCCAA CAAGTTTTCT
4201 TCGGGCCAGA TTGGTGACAT GGAAGTTGGG AGTGCTGAAG
AACCTCTGTC ATTTACATCA
4261 ACCAGCATAT TAAGATCTTT GATGACTGCT ATAGAGGAAT
TGGAGCTTCA CGCAATTAGA
4321 ACTGGCCATT CACACATGTA TTTGCATGTA TTGAAAGAAC
AAAAGCTTCT TGATCTTGTT
4381 CCAGTTTCAG GGAATACAGT TTTGGATGTT GGTCAAGATG
AAGCTACTGC ATATTCACCT
4441 TTAAGAGAAA TGGCTATGAA GATACATGAA CTTGTTGGTG
CAAGAATGCA CCATCTTTCT
4501 GTATGCCAAT GGAAGTGAA ACTTAAGTTG GACTGCGATG
GTCTGCCAG TGGTACCTGG
4561 AGGATTGTAA CAACCAATGT TACTAGTCAC ACTTGCACTG
TGGATATCTA CCGTGAGATG
4621 GAAGATAAAG AATCACGGAA GTTAGTATAC CATCCCGCCA
CTCCGGCGGC TGGTCCTCTG
4681 CATGGTGTGG CACTGAATAA TCCATATCAG CCTTTGAGTG
TCATTGATCT CAAACGCTGT
4741 TCTGCTAGGA ATAATAGAAC TACATACTGC TATGATTTTC
CACTGGCATT TGAAACTGCA
4801 GTGAGGAAGT CATGGTCCTC TAGTACCTCT GGTGCTTCTA
AAGGTGTTGA AAATGCCCAA
4861 TGTTATGTTA AAGCTACAGA GTTGGTATTT GCGGACAAAC
ATGGGTCATG GGGCACTCCT
4921 TTAGTTCAAA TGGACCGGCC TGCTGGGCTC AATGACATTG
GTATGGTAGC TTGGACCTTG
4981 AAGATGTCCA CTCCTGAATT TCCTAGTGGT AGGGAGATTA
TTGTTGTTGC AAATGATATT
5041 ACGTTCAGAG CTGGATCATT TGGCCCAAGG GAAGATGCAT
TTTTTGAAGC TGTTACCAAC
5101 CTAGCCTGTG AGAAGAACT TCCTCTTATT TATTTGGCAG
CAAATTCTGG TGCTCGAATT
5161 GGCATAGCAG ATGAAGTGAA ATCTTGCTTC CGTGTGGGT
GGTCTGATGA TGGCAGCCCT

FIGURE 2A CONTINUED

5221 GAACGTGGGT TTCAGTACAT TTATCTAAGC GAAGAAGACT
ATGCTCGTAT TGGCACTTCT
5281 GTCATAGCAC ATAAGATGCA GCTAGACAGT GGTGAAATTA
GGTGGGTTAT TGATTCTGTT
5341 GTGGGCAAGG AAGATGGACT TGGTGTGGAG AATATACATG
GAAGTGCTGC TATTGCCAGT
5401 GCTTATTCTA GGGCATATAA GGAGACATTT ACACTTACAT
TTGTGACTGG AAGAACTGTT
5461 GGAATAGGAG CTTATCTTGC TCGACTTGGC ATCCGGTGCA
TACAGCGTCT TGACCAGCCT
5521 ATTATTCTTA CAGGCTATTC TGCCTGAAC AAGCTTCTTG
GGCGGGAAGT GTACAGCTCC
5581 CACATGCAGT TGGGTGGTCC CAAAATCATG GCAACTAATG
GTGTTGTCCA TCTTACTGTT
5641 TCAGATGACC TTGAAGGCGT TTCTAATATA TTGAGGTGGC
TCAGTTATGT TCCTGCCTAC
5701 ATTGGTGGAC CACTTCCAGT AACAAACCCG TTGGACCCAC
CGGACAGACC TGTTGCATAC
5761 ATTCCTGAGA ACTCGTGTGA TCCTCGAGCG GCTATCCGTG
GTGTTGATGA CAGCCAAGGG
5821 AAATGGTTAG GTGGTATGTT TGATAAAGAC AGCTTTGTGG
AAACATTTGA AGGTTGGGCT
5881 AAGACAGTGG TTAAGTGGCAG AGCAAAGCTT GGTGGAATTC
CAGTGGGTGT GATAGCTGTG
5941 GAGACTCAGA CCATGATGCA AACTATCCCT GCTGACCCTG
GTCAGCTTGA TTCCCGTGAG
6001 CAATCTGTTC CTCGTGCTGG ACAAGTGTGG TTTCCAGATT
CTGCAACCAA GACTGCGCAG
6061 GCATTGCTGG ACTTCAACCG TGAAGGATTA CCTCTGTTCA
TCCTCGCTAA CTGGAGAGGC
6121 TTCTCTGGTG GACAAAGAGA TCTTTTTGAA GGAATTCTTC
AGGCTGGCTC GACTATTGTT
6181 GAGAACCTTA GGACATACAA TCAGCCTGCC TTTGTCTACA
TTCCCATGGC TGCAGAGCTA
6241 CGAGGAGGGG CTTGGGTTGT GGTGATAGC AAGATAAACC
CAGACCGCAT TGAGTGCTAT
6301 GCTGAGAGGA CTGCAAAAGG CAATGTTCTG GAACCGCAAG
GGTTAATTGA GATCAAGTTC
6361 AGGTCAGAGG AACTCCAGGA TTGCATGAGT CGGCTTGACC
CAACATTAAT TGATCTGAAA
6421 GCAAACTCG AAGTAGCAAA TAAAAATGGA AGTGCTGACA
CAAAATCGCT TCAAGAAAAT
6481 ATAGAAGCTC GAACAAAACA GTTGATGCCT CTATATACTC
AGATTGCGAT ACGGTTTGCT

FIGURE 2A CONTINUED

6541 GAATTGCATG ATACATCCCT CAGAATGGCT GCGAAAGGTG
TGATTAAGAA AGTTGTGGAC
6601 TGGGAAGAAT CACGATCTTT CTTCTATAAG AGATTACGGA
GGAGGATCTC TGAGGATGTT
6661 CTTGCAAAAAG AAATTAGAGC TGTAGCAGGT GAGCAGTTTT
CCCACCAACC AGCAATCGAG
6721 CTGATCAAGA AATGGTATTC AGCTTCACAT GCAGCTGAAT
GGGATGATGA CGATGCTTTT
6781 GTTGCTTGGG TGGATAACCC TGAAAACACTAC AAGGATTATA
TTCAATATCT TAAGGCTCAA
6841 AGAGTATCCC AATCCCTCTC AAGTCTTTCA GATTCCAGCT
CAGATTTGCA AGCCCTGCCA
6901 CAGGGTCTTT CCATGTTACT AGATAAGATG GATCCCTCTA
GAAGAGCTCA ACTTGTTGAA
6961 GAAATCAGGA AGGTCCTTGG TTGAATCATA TGATGCCAAA
ACTATTATTG GAGGCACAAA
7021 TAGCTTGTGG ACCCTGTCGG ATTGTTGGTG AGTGTATATT
GGATTTGTTA GTTCTGCCAG
7081 ATGAAAGTGC AAGTCTGATG ATTCATGATA CCGTCAGTTG
GCAAGAACAC CGGTTAACCT
7141 GAGTGCTTGT TTACAAATGG TCCTTTATGA CAATCGTTGT
TTCGCGCTAG TTCCGTGATC
7201 TACTATCATC TGTTAGACGC TGTAATTAGT GAGTCTCCGC
GGATCCACAG TATACGGTTG
7261 AGCTGTTGAT TCAATTTTGG ACACGAATAA TATGATTTTG
TAGGCATAAA TGCGTCTGTA
7321 TGTGAAATAA ATTGTCTGTT GAGTTAACAC ACAAGATGAC
AATATGTTTG TGCTCTACTG
7381 CTATTGTCCA TGAATACTGA TTGCGGAATC AACCACATGC ATTAT

FIGURE 2B
ORYZA SATIVA PLASTIDAL ACCASE OS05G22940 RICE TRANSLATED
PROTEIN (CYPRESS) (SEQ ID NO: 4)

1 MTSTHVATLG VGAQAPPRHQ KKSAGTAFVS SGSSRPSYRK
NGQRTSLRE
51 ESNGGVSDSK KLNHSIRQGL AGIIDLPNDA ASEVDISHGS
EDPRGPTVPG
101 SYQMNGIINE THNGRHASVS KVVEFCTALG GKTPIHSVLV
ANNGMAAAKF
151 MRSVRTWAND TFGSEKAIQL IAMATPEDLR INAEHIRIAD
QFVEVPGGTN
201 NNNYANVQLI VEIAERTGVS AVWPGWGHAS ENPELPDALT
AKGIVFLGPP
251 ASSMHALGDK VGSALIAQAA GVPTLAWSGS HVEVPLECCL
DSIPDEMYRK
301 ACVTTTEEAV ASCQVVGYPY MIKASWGGGG KGIRKVHNDD
EVRTLQKQVQ
351 GEVPGSPIFI MRLAAQSRHL EVQLLCDQYG NVAALHSRDC
SVQRRHQKII
401 EEGPVTVAPR ETVKELEQAA RRLAKAVGYV GAATVEYLYS
METGEYYFLE
451 LNPRLQVEHP VTEWIAEVNL PAAQVAVGMG IPLWQIPEIR
RFYGMNHGGG
501 YDLWRKTAAL ATPFNFDEVD SKWPKGHCVA VRITSEDPDD
GFKPTGGKVK
551 EISFKSKPNV WAYFSVKSGG GIHEFADSQF GHVFAYGTTR
SAAITTMALA
601 LKEVQIRGEI HSNVDYTVDL LNASDFRENK IHTGWLDTRI
AMRVQAERPP
651 WYISVVGGAL YKTVTANTAT VSDYVGylTK GQIPPKHISL
VYTTVALNID
701 GKKYTIDTVR SGHGSYRLRM NGSTVDANVQ ILCDGGLLMQ
LDGNSHVIYA
751 EEEASGTRLL IDGKTCMLQN DHDPKLLAE TPCKLLRFLV
ADGAHVDAADV
801 PYAEVEVMKM CMPLLSPASG VIHVMSEGQ AMQAGDLIAR
LDLDDPSAVK
851 RAEFFEDTFP QMGLPIAASG QVHKLCAASL NACRMILAGY
EHDIDKVPE
901 LUYCLDTPEL PFLQWEELMS VLATRLPRNL KSELEGKYEE
YKVKFDSGII
951 NDFPANMLRV IIEENLACGS EKEKATNERL VEPLMSLLKS
YEGGRESHAH
1001 FVVKSLFEEY LYVEELFSDG IQSDVIERLR LQHSKDLQKV
VDIVLSHQSV
1051 RNKTKLILKL MESLVYPNPA AYRDQLIRFS SLNHKAYYKL
ALKASELLEQ
1101 TKLSELRARI ARSLSELEMF TEESKGLSMH KREIAIKESM
EDLVTAPLPV

FIGURE 2B CONTINUED

1151 EDALISLFDC SDTTVQQRVI ETYIARLYQP HLVKDSIKMK
WIESGVIALW
1201 EFPEGHFDAR NGGAVLGDKR WGAMVIVKSL ESLSMAIRFA
LKETSHYTSS
1251 EGNMMHIALL GADNKMHHIQ ESGDDADRIA KLPLILKDNV
TDLHASGVKT
1301 ISFIVQRDEA RMTMRRTFLW SDEKLSYEEE PILRHVEPPL
SALLELDKLLK
1351 VKGYNEMKYT PSRDRQWHIY TLRNTENPKM LHRVFFRTL
RQPSVSNKFS
1401 SGQIGDMEVG SAEPLSFTS TSILRSLMTA IEELELHAIR
TGHSHMYLHV
1451 LKEQKLLDLV PVSGNTVLDV GQDEATAYSL LKEMAMKIHE
LVGARMHHLS
1501 VCQWEVKLKL DCDGPASGTW RIVTTNVTSH TCTVDIYREM
EDKESRKLVI
1551 HPATPAAGPL HGVALNNPYQ PLSVIDLKRC SARNNRITYC
YDFPLAFETA
1601 VRKSWSSSTS GASKGVENAG CYVKATELVF ADKHGWSGTP
LVQMDRPAGL
1651 NDIGMVAWTL KMSTPEFPGS REIIVVANDI TFRAGSFGPR
EDAFFEAVTN
1701 LACEKKLPLI YLAANSRARI GIADEVKSCF RVGWSDDGSP
ERGFQYIYLS
1751 EEDYARIGTS VIAHKMQLDS GEIRWVIDSV VGKEDGLGVE
NIHGSAAIAS
1801 AYSRAYKETF TLTFTVGRTV GIGAYLARLG IRCIQRLDQP
IILTGYALN
1851 KLLGREVYSS HMLGGPKIM ATNGVVHLTV SDDLEGVSN
LRWLSYVPAY
1901 IGGPLPVTP LDPPDRPVAY IPENSCDPRA AIRGVDDSQG
KWLGGMFDKD
1951 SFVETFEQWA KTVVTGRAKL GGIPVGVIAV ETQTMQTIP
ADPGQLDSRE
2001 QSVPRAGQVW FPDSATKTAQ ALLDFNREGL PLFILANWRG
FSGGQRDLFE
2051 GILQAGSTIV ENLRTYNQA FVYIPMAAEL RGGAWVVVDS
KINPDRIECY
2101 AERTAKGNVL EPQGLIEIKF RSEELQDCMS RLDPTLIDLK
AKLEVANKNG
2151 SADTKSLQEN IEARTKQLMP LYTQIAIRFA ELHDTSLRMA
AKGVIKKVD
2201 WEESRSFFYK RLRRRISEV LAKEIRAVAG EQFSHQPAIE
LIKKWYSASH
2251 AAEDDDDAF VAWMDNPENY KDYIQYLKAG RVSQSLSSLS
DSSSDLQALP
2301 QGLSMLLDKM DPSRRAQLVE EIRKVLG

FIGURE 2C

ORYZA SATIVA PLASTIDAL ACCASE OS05G22940 RICE GENOMIC DNA -
AP008211 REVERSE COMPLEMENTED FRAGMENT (SEQ ID NO: 5)

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1 TCATTCTTAT ATATTTTCAT CTGTCAGATT TCACACATCT
GGGGATTTAT CTTCTCTTTG
61 TATGGCACTA CACATTTGAG AAACCGTGCA ATTCTACTGT
TTGGTCAGCA GGACAACAAT
121 GACATCCACA CATGTGGCGA CATTGGGAGT TGGTGCCCAG
GCACCTCCTC GTCACCAGAA
181 AAAGTCAGCT GGCACATGCAT TTGTATCATC TGGGTCATCA
AGACCCTCAT ACCGAAAAGAA
241 TGGTCAGCGT ACTCGGTCAC TTAGGGAAGA AAGCAATGGA
GGAGTGTCTG ATTCCAAAAA
301 GCTTAACCAC TCTATTCGCC AAGGTGACCA CTAGCTACTT
TACATATGCT ATAATTTGTG
361 CCAAACATAA ACATGCAATG GCTGCTATTA TTTAAACGTT
AATGTTGAAA TAGCTGCTAT
421 AGGATACAGC AAAAATATAT AATTGACTGG GCAAGATGCA
ACAATTGTTT TTCACTAAAG
481 TTAGTTATCT TTTGCTGTAA AAGACAACTG TTTTTTACAT
AAAATGGTAT TAATAACCTT
541 GTAATATTCA ATGCAACATG TTCTCAAGTA AAAAAAACA
TTGCCTGGTT GTATAAGCAA
601 ATGTGTCGTT GTAGACATCT TATTAAACCT TTTTGTGATA
TCTATTACCG TAGGGAACAG
661 GGGAGCTGTT TAAATCTGTT ATCATAGAGT AATATGAGAA
AAGTGGATTG TGCGACTTTG
721 GCATGTATAC CTGCTCAATT TCAAATATAT GTCTATGTGC
AGGTCTTGCT GGCATCATTG
781 ACCTCCCAAA TGACGCAGCT TCAGAAGTTG ATATTTTACA
GTAAGGACTT TATATTTTAT
841 AATAATTATT ATATAATTTT CTGACATGTT TTGAGAACCT
CAAAACATGT GATTGCACCT
901 TCCTTTTTTA TGTCTGGTTC AGAAACTGAT AAGTTTGTGAC
AGTGTTTAGG ATGGATCTTT
961 GATGCGCACA GTGCTTTCTA ATGTTTTTCAT TTTTGAAAGT
AATGTTTTAG GAAGAAATAT
1021 CTGATTAAAT TTATACTTTA TCTTTACAAA AGTCAAATGC
GTTCTGTATC AATTGCGGTT
1081 TGTAATATGG CAAGAACATG CTTTCAGAAT TTGTCATAC
AATGCTTTCT TTCTATTATT
1141 ATGTAGAACA AATACCTAAT ACTTTGTTCA CCTTTTATAG
TGGACACCTC TCACAGCTTT
1201 TTCAGTAAGT GATGCAATTT TGTACATTTG TAAGATGTGT
TCCAGAAACC TTTTCTCCTG
```

FIGURE 2C CONTINUED

1261 CAATTCTAAT GTACCCACTC AACTGGTAT CACCAAAGAT
CTCCATCTGA TTGAAAAAAA
1321 GCTGCGTGAA GTATGCTTAT TTATGCTAAC CATACATGAT
TTATACTGTT TTATAGTACA
1381 ATGCTTATTT ATGCTAACCA TACATAATTT TATTCTGTTT
TCTAGTACAT TATTTGTGCC
1441 CCTGACCATA AATGATCCTT TCTTTTACAG TGGTTCCGAA
GATCCCAGGG GGCCTACGGT
1501 CCCAGGTTCC TACCAAATGA ATGGGATTAT CAATGAAACA
CATAATGGGA GGCATGCTTC
1561 AGTCTCCAAG GTTGTGAGT TTTGTACGGC ACTTGGTGGC
AAAACACCAA TTCACAGTGT
1621 ATTAGTGGCC AACAAATGGAA TGGCAGCAGC TAAGTTCATG
CGGAGTGTCC GAACATGGGC
1681 TAATGATACT TTTGGATCAG AGAAGGCAAT TCAGCTGATA
GCTATGGCAA CTCCGGAGGA
1741 TCTGAGGATA AATGCAGAGC ACATCAGAAT TGCCGATCAA
TTTGTAGAGG TACCTGGTGG
1801 AACAAACAAC AACAACTATG CAAATGTCCA ACTCATAGTG
GAGGTTAGTT CAGCTCATCC
1861 CTCAACACAA CATTTTCGTT TCTATTTAAG TTAGGGAAAA
ATCTCTACGA CCCTCCAATT
1921 TCTGAACATC CAATTTTCAC CATCAACTGC AATCACAGAT
AGCAGAGAGA ACAGGTGTTT
1981 CTGCTGTTTG GCCTGGTTGG GGTCATGCAT CTGAGAATCC
TGAACTTCCA GATGCGCTGA
2041 CTGCAAAAGG AATTGTTTTT CTTGGGCCAC CAGCATCATC
AATGCATGCA TTAGGAGACA
2101 AGGTTGGCTC AGCTCTCATT GCTCAAGCAG CTGGAGTTCC
AACACTTGCT TGGAGTGGAT
2161 CACATGTGAG CCTTGTCTTC TCTTTTTTAG CTTATCATCT
TATCTTTTCG GTGATGCATT
2221 ATCCCAATGA CACTAAACCA TAGGTGGAAG TTCCTCTGGA
GTGTTGCTTG GACTCAATAC
2281 CTGATGAGAT GTATAGAAAA GCTTGTGTTA CTACCACAGA
GGAAGCAGTT GCAAGTTGTC
2341 AGGTGGTTGG TTATCCTGCC ATGATTAAGG CATCTGGGG
TGGTGGTGGT AAAGGAATAA
2401 GGAAGGTTTG TTCTTCTTGT AGTTATCAAG AGATTGTTTG
GATTGCAAGT GTTTAGTGCC
2461 CATAGTTAAC TCTGGTCTTT CTAACATGAG TAACTCAACT
TTCTTGCAAG TTCATAATGA
2521 TGATGAGGTT AGGACATTAT TTAAGCAAGT TCAAGGCGAA
GTACCTGGTT CCCCAATATT

FIGURE 2C CONTINUED

2581 TATCATGAGG CTAGCTGCTC AGGTGGGGCC TTTTATGGAA
GTTACACCTT TTCCCTTAAT
2641 GTTGAGTTAT TCCGGAGTTA TTATGGTTAT GTTCTGTATG
TTTGATCTGT AAATTATTGA
2701 AATTCACCTC CATTGGTTCT CCAGATTAGC AGACCTACAA
TTCTACATAT GGTTTATACT
2761 TTATAAATAC TAGGATTTAG GGATCTTCAT ATAGTTTATA
CATGGTATTT AGATTTTCATT
2821 TGTAACCCTA TTGAAGACAT CCTGATTGTT GTCTTATGTA
GAGTCGACAT CTTGAAGTTC
2881 AGTTGCTTTG TGATCAATAT GGCAACGTAG CAGCACTTCA
CAGTCGAGAT TGCAGTGTAC
2941 AACGGCGACA CCAAAGGTC TGCTGTCTCA GTTAAATCAC
CCCTCTGAAT GATCTACTTC
3001 TTGCCTGCTG CGTTGGTCAG AGGAATAATG GTTGTATTCT
ACTGAACAGA TAATCGAGGA
3061 AGGACCAGTT ACTGTTGCTC CTCGTGAGAC TGTGAAAGAG
CTTGAGCAGG CAGCACGGAG
3121 GCTTGCTAAA GCTGTGGGTT ATGTTGGTGC TGCTACTGTT
GAATACCTTT ACAGCATGGA
3181 AACTGGTGAA TATTATTTTC TGGAACCTAA TCCACGGCTA
CAGGTCGGCT CCTTTGACAT
3241 TCTTCAGGAA TTAATTTCTG TTGACCACAT GATTTACATT
GTCAAATGGT CTCACAGGTT
3301 GAGCATCCTG TCACTGAGTG GATAGCTGAA GTAAATTTGC
CTGCGGCTCA AGTTGCTGTT
3361 GGAATGGGTA TACCCCTTTG GCAGATTCCA GGTAATGCTT
CTTCATTTAG TTCCTGCTCT
3421 TTGTTAATTG AATGAGCTCT TATACAGACC ATGAGACACA
TTCTACTGTT AATTCATAGT
3481 ATCCCCTGAC TTGTTAGTGT TAGAGATACA GAGATGTATC
ACAAATTCAT TGTATCTCCT
3541 CAAGGACTGT AAAAATCCTA TAATTAAATT TCTGAAAATT
TGTTCTTTTA AGCAGAAAAA
3601 AAATCTCTAA ATTATCTCCC TGTATACAGA GATCAGGCGC
TTCTACGGAA TGAACCATGG
3661 AGGAGGCTAT GACCTTTGGA GGAAAACAGC AGCTCTAGCG
ACTCCATTTA ACTTTGATGA
3721 AGTAGATTCT AAATGGCCAA AAGGCCACTG CGTAGCTGTT
AGAATAACTA GCGAGGATCC
3781 AGATGATGGG TTAAAGCCTA CTGGTGGAAG AGTAAAGGTG
CGGTTTCCTG ATGTTAGGTG
3841 TATGAATTGA ACACATTGCT ATATTGCAGC TAGTGAAATG
ACTGGATCAT GGTTCTCTTA

FIGURE 2C CONTINUED

3901 TTTTCAGGAG ATAAGTTTCA AGAGTAAACC AAATGTTTGG
GCCTATTTCT CAGTAAAGGT
3961 AGTCCTCAAT ATTGTTGCAC TGCCACATTA TTTGAGTTGT
CCTAACAAAT GTGCTGCAAT
4021 TGTTAGTTTT CAACTATTTG TTGTTCTGTT TGGTTGACTG
GTACCCTCTC TTTGCAGTCT
4081 GGTGGAGGCA TCCATGAATT CGCTGATTCT CAGTTCGGTA
TGTAAGTTA AAAGAGTAAT
4141 ATTGTCTTTG CTATTTATGT TTGTCCTCAC TTTTAAAAGA
TATTGCCTTC CATTACAGGA
4201 CATGTTTTTG CGTATGGAAC TACTAGATCG GCAGCAATAA
CTACCATGGC TCTTGCACTA
4261 AAAGAGGTTC AAATTCGTGG AGAAATTCAT TCAAACGTAG
ACTACACAGT TGACCTATTA
4321 AATGTAAGGA CTAAATATCT GCTTATTGAA CCTTGCTTTT
TGGTTCCCTA ATGCCATTTT
4381 AGTCTGGCTA CTGAAGAACT TATCCATCAT GCCATTTCTG
TTATCTTAAA TTCAGGCCTC
4441 AGATTTTAGA GAAAATAAGA TTCATACTGG TTGGCTGGAT
ACCAGGATAG CCATGCGTGT
4501 TCAAGCTGAG AGGCCTCCAT GGTATATTTT AGTCGTTGGA
GGGGCTTTAT ATGTAAGACA
4561 AACTATGCCA CTCATTAGCA TTTATGTGAA GCAAATGCGG
AAAACATGAT CAATATGTCG
4621 TCTTATTTAA ATTTATTTAT TTTTGTGCTG CAGAAAACAG
TAACTGCCAA CACGGCCACT
4681 GTTTCTGATT ATGTTGGTTA TCTTACCAAG GGCCAGATTC
CACCAAAGGT ACTATTCTGT
4741 TTTTTCAGGA TATGAATGCT GTTTGAATGT GAAAACCATT
GACCATAAAT CCTTGTTTGC
4801 AGCATATATC CCTTGTCTAT ACGACTGTTG CTTTGAATAT
AGATGGGAAA AAATATACAG
4861 TAAGTGTGAC ATTCTTAATG GGGAACTTA ATTTGTTGTA
AATAATCAAT ATCATATTGA
4921 CTCGTGTATG CTGCATCATA GATCGATACT GTGAGGAGTG
GACATGGTAG CTACAGATTG
4981 CGAATGAATG GATCAACGGT TGACGCAAAT GTACAAATAT
TATGTGATGG TGGGCTTTTA
5041 ATGCAGGTAA TATCTTCTTC CTAGTTAAAG AAGATATATC
TTGTTCAAAG AATTCTGATT
5101 ATTGATCTTT TAATGTTTTT AGCTGGATGG AAACAGCCAT
GTAATTTATG CTGAAGAAGA
5161 GGCCAGTGGT ACACGACTTC TTATTGATGG AAAGACATGC
ATGTTACAGG TAATGATAGC

FIGURE 2C CONTINUED

5221 CTTGTTCTTT TTAGTTCTAG TCACGGTGTT TGCTTGCTAT
TTGTTGTATC TATTTAATGC
5281 ATTCACTAAT TACTATATTA GTTTGCATCA TCAAGTTAAA
ATGGAACCTC TTTCTTGCAG
5341 AATGACCATG ACCCATCAAA GTTATTAGCT GAGACACCAT
GCAAACTTCT TCGTTTCTTG
5401 GTTGCTGATG GTGCTCATGT TGATGCTGAT GTACCATATG
CGGAAGTTGA GGTTATGAAG
5461 ATGTGCATGC CCCTCTTATC ACCCGCTTCT GGTGTCATAC
ATGTTGTAAT GTCTGAGGGC
5521 CAAGCAATGC AGGTACATTC CTACATTCCA TTCATTGTGC
TGTGCTGACA TGAACATTTT
5581 AAGTAAATAC CTGTAACCTG TTTATTATTC TAGGCTGGTG
ATCTTATAGC TAGGCTGGAT
5641 CTTGATGACC CTTCTGCTGT TAAGAGAGCT GAGCCGTTCG
AAGATACTTT TCCACAAATG
5701 GGTCTCCCTA TTGCTGCTTC TGGCCAAGTT CACAAATTAT
GTGCTGCAAG TCTGAATGCT
5761 TGTCGAATGA TCCTTGCGGG GTATGAGCAT GATATTGACA
AGGTAAACAT CATGTCCTCT
5821 TGTTTTTTCT TTTGTTTATC ATGCATTCTT ATGTTCATCA
TGTCCTCTGG CAAATCTAGA
5881 TTCCGCTGTC GTTTCACACA GATTTTTCTC ATTCTCATAA
TGGTGCCAAA CATAAATATG
5941 CTGCTATATT CATCAATGTT TTCACTCGAT TTCTAATTTT
GCTTTTGAGT TTAAACTTTT
6001 AGTACAATCC ATATCTAATC TCCTTTGGCA ACAGTGAATC
CATTATATAT ATTTTTATTA
6061 AACTGCTTTC TTTTTCAGGT TGTGCCAGAG TTGGTATACT
GCCTAGACAC TCCGGAGCTT
6121 CCTTTCCTGC AGTGGGAGGA GCTTATGTCT GTTTTAGCAA
CTAGACTTCC AAGAAATCTT
6181 AAAAGTGAGG TATATTATGG TTGACAAGAT AGCTAGTCTC
ATGCTCTAAG GACTTGTACA
6241 TTTCGCCACA TAGGTTAATT TTCCATATCA AGTTCTAATG
TACGATATAA AAGTAGTACT
6301 GGCCTAAAAC AGTATTGGTG GTTGACTATC TTTGTTGTGT
AAGATCAAGT ATTTCTTTTT
6361 CATGCTTAGT TTGTCAATAC TTCACATTTA TCACTGACTT
GTCGAGCTAA ATGAGATTTT
6421 ATTTGATTC TGTGCTCCAT TATTTTTGTA TATATATATA
TATATTTAAC TATGACTATA
6481 TGTTATGCCT CAAACGTTTC AAACCTTTTC AGTTGGAGGG
CAAATATGAG GAATACAAAG

FIGURE 2C CONTINUED

6541 TAAAATTTGA CTCTGGGATA ATCAATGATT TCCCTGCCAA
TATGCTACGA GTGATAATTG
6601 AGGTCAGTTA TTCAATTTGT TGTGATAATC ACTGCCTTAA
CTGTTTCGTTT TTTTAACAAG
6661 CGGTTTTATA GGAAAATCTT GCATGTGGTT CTGAGAAGGA
GAAGGCTACA AATGAGAGGC
6721 TTGTTGAGCC TCTTATGAGC CTAAGAAGT CATATGAGGG
TGGGAGAGAA AGTCATGCTC
6781 ACTTTGTTGT CAAGTCCCTT TTTGAGGAGT ATCTCTATGT
TGAAGAATTG TTCAGTGATG
6841 GAATTCAGGT TAACTTACCT ATTCGCATTA AACAAAATCAT
CAGTTGTTTT ATGATAAAGT
6901 CAAAATGTTT ATATTTCCCA TTCTTCTGTG GATCAAATAT
ATCACGGACA TGATATAGTT
6961 TCCTTAGGCT ATATAATGGT TCTTCATCAA ATAATATTGC
AGGAAACAGT ATAGCAAACCT
7021 ATTTGTATAT ACTCGAGATG GAAATTGTGA GAAACATCAT
TGACTAAATC TGTCTTTTGT
7081 TACGCTGTTT TTGTAGTCTG ATGTGATTGA GCGTCTGCGC
CTTCAACATA GTAAAGACCT
7141 ACAGAAGGTC GTAGACATTG TGTGTGCCCA CCAGGTAAAT
TTCTTCATGG TCTGATGACT
7201 TCACTGCGAA TGGTTACTGA ACTGTCTTCT TGTTCTGACA
ATGTGACTTT TCTTTGTAGA
7261 GTGTTAGAAA TAAACTAAG CTGATACTAA AACTCATGGA
GAGTCTGGTC TATCCAAATC
7321 CTGCTGCCTA CAGGGATCAA TTGATTCGCT TTTCTTCCCT
TAATCACAAA GCGTATTACA
7381 AGGTGACCAG GATAAACATA AATAAACGTG AATTTTTCAA
TGACCTTTTC TTCTGACATC
7441 TGAATCTGAT GAATTTCTTG CATATTAATA CAGTTGGCAC
TTAAAGCTAG TGAACCTCTT
7501 GAACAAACAA AACTTAGTGA GCTCCGTGCA AGAATAGCAA
GGAGCCTTTC AGAGCTGGAG
7561 ATGTTTACTG AGGAAAGCAA GGGTCTCTCC ATGCATAAGC
GAGAAATTGC CATTAAGGAG
7621 AGCATGGAAG ATTTAGTCAC TGCTCCACTG CCAGTTGAAG
ATGCGCTCAT TTCTTTATTT
7681 GATTGTAGTG ATACAACTGT TCAACAGAGA GTGATTGAGA
CTTATATAGC TCGATTATAC
7741 CAGGTATGAG AAGAAAGACC TTTTGAAATT ATTTATATTA
ACATATCCTA GTAAAACAGC
7801 ATGCTCATCA TTTCTTAAAA AAAGTTTACA GCACCTGATG
TTTGTTACT GACCGCATCA

FIGURE 2C CONTINUED

7861 TTAAAATAAA GTTACTTGTT GTGGAGAGAT GTATTTTGGG
ACTTGTGGCA CATGCAGTAA
7921 CATGCTACTG CTCGATATGT TTGCTAACTT GACAACAATA
TTTTTCAGCC TCATCTTGTA
7981 AAGGACAGTA TCAAAATGAA ATGGATAGAA TCGGGTGTTA
TTGCTTTATG GGAATTTTCCT
8041 GAAGGGCATT TTGATGCAAG AAATGGAGGA GCGGTTCTTG
GTGACAAAAG ATGGGGTGCC
8101 ATGGTCATTG TCAAGTCTCT TGAATCACTT TCAATGGCCA
TTAGATTTGC ACTAAAGGAG
8161 ACATCACACT AACTAGCTC TGAGGGCAAT ATGATGCATA
TTGCTTTGTT GGGTGCTGAT
8221 AATAAGATGC ATATAATTCA AGAAAGGTAT GTTCATATGC
TATGTTGGTG CTGAAATAGT
8281 TATATATGTA GTTAGCTGGT GGAGTTCTGG TAATTAACCT
ATCCCATTGT TCAGTGGTGA
8341 TGATGCTGAC AGAATAGCCA AACTTCCCTT GATACTAAAG
GATAATGTAA CCGATCTGCA
8401 TGCCTCTGGT GTGAAAACAA TAAGTTTCAT TGTTCAAAGA
GATGAAGCAC GGATGACAAT
8461 GCGTCGTACC TTCCTTTGGT CTGATGAAAA GCTTTCTTAT
GAGGAAGAGC CAATTCTCCG
8521 GCATGTGGAA CCTCCTCTTT CTGCACTTCT TGAGTTGGTA
CGTGATATCA TCAAAATGAT
8581 AATGTTTTGG TATGGCATTG ATTATCTTCT ATGCTCTTTG
TATTTATTCA GCCTATTGTG
8641 GATACAGGAC AAGTTGAAAG TGAAAGGATA CAATGAAATG
AAGTATACCC CATCACGGGA
8701 TCGTCAATGG CATATCTACA CACTTAGAAA TACTGAAAAC
CCCAAATGT TGCACCGGGT
8761 ATTTTTCCGA ACCCTTGTC AAGCAACCCAG TGTATCCAAC
AAGTTTTCTT CGGGCCAGAT
8821 TGGTGACATG GAAGTTGGGA GTGCTGAAGA ACCTCTGTCA
TTTACATCAA CCAGCATATT
8881 AAGATCTTTG ATGACTGCTA TAGAGGAATT GGAGCTTCAC
GCAATTAGAA CTGGCCATTC
8941 ACACATGTAT TTGCATGTAT TGAAAGAACA AAAGCTTCTT
GATCTTGTTT CAGTTTCAGG
9001 GTAAGTGCGC ATATTTCTTT TTGGGAACAT ATGCTTGCTT
ATGAGGTTGG TCTTCTCAAT
9061 GATCTTCTTA TCTTACTCAG GAATACAGTT TTGGATGTTG
GTCAAGATGA AGCTACTGCA
9121 TATTCACCTT TAAAAGAAAT GGCTATGAAG ATACATGAAC
TTGTTGGTGC AAGAATGCAC

FIGURE 2C CONTINUED

9181 CATCTTTCTG TATGCCAATG GGAAGTGAAA CTTAAGTTGG
ACTGCGATGG TCCTGCCAGT
9241 GGTACCTGGA GGATTGTAAC AACCAATGTT ACTAGTCACA
CTTGCACTGT GGATGTAAGT
9301 TTAATCCTCT AGCATTTTGT TTTCTTTGGA AAAGCATGTG
ATTTTAAGCC GGCTGGTCCT
9361 CATACCCAGA CCTAGTGATC TTTATATAGT GTAGACATTT
TTCTAACTGC TTTTAATTGT
9421 TTTAGATCTA CCGTGAGATG GAAGATAAAG AATCACGGAA
GTTAGTATAC CATCCCGCCA
9481 CTCCGGCGGC TGGTCCTCTG CATGGTGTGG CACTGAATAA
TCCATATCAG CCTTTGAGTG
9541 TCATTGATCT CAAACGCTGT TCTGCTAGGA ATAATAGAAC
TACATACTGC TATGATTTTC
9601 CACTGGTGAG TTGACTGCTC CCTTATATTC AATGCATTAC
CATAGCAAAT TCATATTCGT
9661 TCATGTTGTC AAAATAAGCC GATGAAAATT CAAAACGTGA
GGCATTTGAA ACTGCAGTGA
9721 GGAAGTCATG GTCCTCTAGT ACCTCTGGTG CTTCTAAAGG
TGTTGAAAAT GCCCAATGTT
9781 ATGTTAAAGC TACAGAGTTG GTATTTGCGG ACAAACATGG
GTCATGGGGC ACTCCTTTAG
9841 TTCAAATGGA CCGGCCTGCT GGGCTCAATG ACATTGGTAT
GGTAGCTTGG ACCTTGAAGA
9901 TGTCCACTCC TGAATTTTCT AGTGGTAGGG AGATTATTGT
TGTTGCAAAT GATATTACGT
9961 TCAGAGCTGG ATCATTTGGC CCAAGGGAAG ATGCATTTTT
TGAAGCTGTT ACCAACCTAG
10021 CCTGTGAGAA GAACTTCTCT CTTATTTATT TGGCAGCAAA
TTCTGGTGCT CGAATTGGCA
10081 TAGCAGATGA AGTGAAATCT TGCTTCCGTG TTGGGTGGTC
TGATGATGGC AGCCCTGAAC
10141 GTGGGTTTCA GTACATTTAT CTAAGCGAAG AAGACTATGC
TCGTATTGGC ACTTCTGTCA
10201 TAGCACATAA GATGCAGCTA GACAGTGGTG AAATTAGGTG
GGTTATTGAT TCTGTTGTGG
10261 GCAAGGAAGA TGGACTTGGT GTGGAGAATA TACATGGAAG
TGCTGCTATT GCCAGTGCTT
10321 ATTCTAGGGC ATATAAGGAG ACATTTACAC TTACATTTGT
GACTGGAAGA ACTGTTGGAA
10381 TAGGAGCTTA TCTTGCTCGA CTTGGCATCC GGTGCATACA
GCGTCTTGAC CAGCCTATTA
10441 TTCTTACAGG CTATTCTGCA CTGAACAAGC TTCTTGGGCG
GGAAGTGTAC AGCTCCCACA

FIGURE 2C CONTINUED

10501 TGCAGTTGGG TGGTCCCAAA ATCATGGCAA CTAATGGTGT
TGTCCATCTT ACTGTTTCAG
10561 ATGACCTTGA AGGCGTTTCT AATATATTGA GGTGGCTCAG
TTATGTTCCCT GCCTACATTG
10621 GTGGACCACT TCCAGTAACA ACACCGTTGG ACCCACCGBA
CAGACCTGTT GCATACATTG
10681 CTGAGAACTC GTGTGATCCT CGAGCGGCTA TCCGTGGTGT
TGATGACAGC CAAGGGAAAAT
10741 GGTTAGGTGG TATGTTTGAT AAAGACAGCT TTGTGGAAAC
ATTTGAAGGT TGGGCTAAGA
10801 CAGTGGTTAC TGGCAGAGCA AAGCTTGGTG GAATTCCAGT
GGGTGTGATA GCTGTGGAGA
10861 CTCAGACCAT GATGCAAACT ATCCCTGCTG ACCCTGGTCA
GCTTGATTCC CGTGAGCAAT
10921 CTGTTCCCTCG TGCTGGACAA GTGTGGTTTC CAGATTCTGC
AACCAAGACT GCGCAGGCAT
10981 TGCTGGACTT CAACCGTGAA GGATTACCTC TGTTTCATCCT
CGCTAACTGG AGAGGCTTCT
11041 CTGGTGGACA AAGAGATCTT TTTGAAGGAA TTCTTCAGGC
TGGCTCGACT ATTGTTGAGA
11101 ACCTTAGGAC ATACAATCAG CCTGCCTTTG TCTACATTCC
CATGGCTGCA GAGCTACGAG
11161 GAGGGGCTTG GGTGTGTGGT GATAGCAAGA TAAACCCAGA
CCGCATTGAG TGCTATGCTG
11221 AGAGGACTGC AAAAGGCAAT GTTCTGGAAC CGCAAGGGTT
AATTGAGATC AAGTTCAGGT
11281 CAGAGGAACT CCAGGATTGC ATGAGTCGGC TTGACCCAAC
ATTAATTGAT CTGAAAGCAA
11341 AACTCGAAGT AGCAAATAAA AATGGAAGTG CTGACACAAA
ATCGCTTCAA GAAAATATAG
11401 AAGCTCGAAC AAAACAGTTG ATGCCTCTAT ATACTCAGAT
TGCGATACGG TTTGCTGAAT
11461 TGCATGATAC ATCCCTCAGA ATGGCTGCGA AAGGTGTGAT
TAAGAAAGTT GTGGACTGGG
11521 AAGAATCACG ATCTTTCTTC TATAAGAGAT TACGGAGGAG
GATCTCTGAG GATGTTCTTG
11581 CAAAAGAAAT TAGAGCTGTA GCAGGTGAGC AGTTTTCCCA
CCAACCAGCA ATCGAGCTGA
11641 TCAAGAAATG GTATTTCAGCT TCACATGCAG CTGAATGGGA
TGATGACGAT GCTTTTGTTG
11701 CTTGGATGGA TAACCCTGAA AACTACAAGG ATTATATTCA
ATATCTTAAG GCTCAAAGAG
11761 TATCCCAATC CCTCTCAAGT CTTTCAGATT CCAGCTCAGA
TTTGCAAGCC CTGCCACAGG

FIGURE 2C CONTINUED

11821 GTCTTTCCAT GTTACTAGAT AAGGTAATTA GCTTACTGAT
GCTTATATAA ATTCTTTTTTC
11881 ATTACATATG GCTGGAGAAC TATCTAATCA AATAATGATT
ATAATTCCAA TCGTTCTTTT
11941 TATGCCATTA TGATCTTCTG AAATTCCTT CTTTGGACAC
TTATTCAGAT GGATCCCTCT
12001 AGAAGAGCTC AACTTGTTGA AGAAATCAGG AAGGTCCTTG
GTTGAATCAT ATGATGCCAA
12061 AACTATTATT GGAGGCACAA ATAGCTTGTG GACCCTGTCTG
GATTGTTGGT GAGTGTATAT
12121 TGGATTTGTT AGTTCTGCCA GATGAAAGTG CAAGTCTGAT
GATTCATGAT ACCGTCAGTT
12181 GGCAAGAACA CCGGTTAACC TGAGTGCTTG TTTACAAATG
GTCCTTTATG ACAATCGTTG
12241 TTTCGCGCTA GTTCCGTGAT CTACTATCAT CTGTTAGACG
CTGTAATTAG TGAGTCTCCG
12301 CGGATCCACA GTATACGGTT GAGCTGTTGA TTCAATTTTG
GACACGAATA ATATGATTTT
12361 GTAGGCATAA ATGCGTCTGT ATGTGAAATA AATTGTCTGT
TGAGTTAACA CACAAGATGA
12421 CAATATGTTT GTGCTCTACT GCTATTGTCC ATGAATACTG
ATTGCGGAAT CAACCACATG
12481 CATTAT

FIGURE 3
EAZ33685 - *ORYZA SATIVA* PLASTIDAL ACCASE OS05G22940 JAPONICA
RICE TRANSLATED PROTEIN (SEQ ID NO: 6)

1 MTSTHVATLG VGAQAPPRHQ KKSAGTAFVS SGSSRPSYRK
NGQRTSLRE
51 ESNGGVSDSK KLNHSIRQGL AGIIDLPNDA ASEVDISHGS
EDPRGPTVPG
101 SYQMNGIINE THNGRHASVS KVVEFCTALG GKTPIHSVLV
ANNGMAAAKF
151 MRSVRTWAND TFGSEKAIQL IAMATPEDLR INAEHIRIAD
QFVEVPGGTN
201 NNNYANVQLI VEIAERTGVS AVWPGWGHAS ENPELPDALT
AKGIVFLGPP
251 ASSMHALGDK VGSALIAQAA GVPTLAWSGS HVEVPLECCL
DSIPDEMYRK
301 ACVTTTEEAV ASCQVVGYPY MIKASWGGGG KGIRKVHNDD
EVRTLQKQVQ
351 GEVPGSPIFI MRLAAQSRHL EVQLLCDQYG NVAALHSRDC
SVQRRHQKII
401 EEGPVTVAPR ETVKELEQAA RRLAKAVGYV GAATVEYLYS
METGEYYFLE
451 LNPRLQVEHP VTEWIAEVNL PAAQVAVGMG IPLWQIPEIR
RFYGMNHGGG
501 YDLWRKTAAL ATPFNFDEVD SKWPKGHCVA VRITSEDPDD
GFKPTGGKVK
551 EISFKSKPNV WAYFSVKSGG GIHEFADSQF GHVFAYGTTR
SAAITTMALA
601 LKEVQIRGEI HSNVDYTVDL LNASDFRENK IHTGWLDTRI
AMRVQAERPP
651 WYISVVGGAL YKTVTANTAT VSDYVGYLTK GQIPPKHISL
VYTTVALNID
701 GKKYTIDTVR SGHGSYRLRM NGSTVDANVQ ILCDGGLLMQ
LDGNSHVIYA
751 EEEASGTRLL IDGKTCMLQN DHDPKLLAE TPCKLLRFLV
ADGAHVDAADV
801 PYAEVEVMKM CMPLLSPASG VIHVMSEGQ AMQAGDLIAR
LDLDDPSAVK
851 RAEFFEDTFP QMGLPIAASG QVHKLCAASL NACRMILAGY
EHDIDKVPE
901 LUYCLDTPEL PFLQWEELMS VLATRLPRNL KSELEGKYEE
YKVKFDSGII
951 NDFPANMLRV IIEENLACGS EKEKATNERL VEPLMSLLKS
YEGGRESHAH
1001 FVVKSLFEEY LYVEELFSDG IQSDVIERLR LQHSKDLQKV
VDIVLSHQSV
1051 RNKTKLILKL MESLVYPNPA AYRDQLIRFS SLNHKAYYKL
ALKASELLEQ
1101 TKLSELRARI ARSLSELEMF TEESKGLSMH KREIAIKESM
EDLVTAPLPV

FIGURE 3 CONTINUED

1151 EDALISLFDC SDTTVQQRVI ETYIARLYQP HLVKDSIKMK
WIESGVIALW
1201 EFPEGHFDAR NGGAVLGDKR WGAMVIVKSL ESLSMAIRFA
LKETSHYTSS
1251 EGNMMHIALL GADNKMHI IQ ESGDDADRIA KLPLILKDNV
TDLHASGVKT
1301 ISFIVQRDEA RMTMRRTFLW SDEKLSYEEE PILRHVEPPL
SALLELDKLLK
1351 VKGYNEMKYT PSRDRQWHIY TLRNTENPKM LHRVFFRTL
RQPSVSNKFS
1401 SGQIGDMEVG SAEPLSFTS TSILRSLMTA IELELHAIR
TGHSHMYLHV
1451 LKEQKLLDLV PVSGNTVLDV GQDEATAYSL LKEMAMKIE
LVGARMHHL
1501 VCQWEVKLLK DCDGPASGTW RIVTTNVTSH TCTVDIYRE
EDKESRKL
1551 HPATPAAGPL HGVALNNPYQ PLSVIDLKRC SARNNRTTYC
YDFPLAFETA
1601 VRKSWSSSTS GASKGVENAQ CYVKATELVQ MDRLAGLNDI
GMVAWTLKMS
1651 TPEFLSGREI IVVANDITFR AGSFGPREDA FFEAVTNLAC
EKKLPLIYLA
1701 ANSGARIGIA DEVKSCFRVG WSDDGSPERG FQYIYLSEED
YARIGTSVIA
1751 HKMQLDSEI RWVIDSVVGK EDGLGVENIH GSAAIASAYS
RAYKETFTLT
1801 FVTGRTVGIG AYLARLGIRC IQRLDQPIIL TGYSALNKLL
GREVYSSHM
1851 LGGPKIMATN GVVHLTVSDD LEGVSNILRW LSYVPAYIG
PLPVTTPLD
1901 PDRPVAYIPE NSCDPRAAIR GVDDSQGKWL GGMFDKDSFV
ETFEGWAKTV
1951 VTGRAKLGGI PVGVIAVETQ TMMQTIPADP GOLDSREQSV
PRAGQVWFPD
2001 SATKTAQALL DFNREGLPLF ILANWRGFSG GQDLFEGIL
QAGSTIVENL
2051 RTYNQPAFVY IPMAAELRGG AWVVVDSKIN PDRIECYAER
TAKGNVLEPQ
2101 GLIEIKFRSE ELQDCMSRLD PTLIDLKAKL EVANKNGSAD
TKSLQENIEA
2151 RTKQLMPLYT QIAIRFAELH DTSRMAAKG VIKKVVDWEE
SRSFFYKRLR
2201 RRISEDLAK EIRAVAGEQF SHQPAIELIK KWYSASHAAE
WDDDDAFVAW
2251 MDNPENYKDY IQYLKAQRVS QSLSSLSDDS SDLQALPQGL
SMLLDKMDPS
2301 RRAQLVEEIR KVLG

FIGURE 4A

AF29895 - *TRITICUM AESTIVUM* PLASTIDAL ACCASE CDNA (SEQ ID NO: 7)

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1 GAACACTGCA TCTGCGCTGT TTGTCCAAAG GGAGGACGAT
GGGATCCACA CATTTGCCCCA
61 TTGTCGGCCT TAATGCCTCG ACAACACCAT CGCTATCCAC
TATTCGCCCCG GTAAATTCAG
121 CCGGTGCTGC ATTCCAACCA TCTGCCCCTT CTAGAACCTC
CAAGAAGAAA AGTCGTCTGT
181 TTCAGTCATT AAGGGATGGA GGCGATGGAG GCGTGTGAGA
CCCTAACCCAG TCTATTGCGC
241 AAGGTCTTGC CGGCATCATT GACCTCCCAA AGGAGGGCAC
ATCAGCTCCG GAAGTGGATA
301 TTTCACATGG GTCCGAAGAA CCCAGGGGGCT CCTACCAAAT
GAATGGGATA CTGAATGAAG
361 CACATAATGG GAGGCATGCT TCGCTGTCTA AGGTTGTGCA
ATTTTGTATG GCATTGGGCG
421 GCAAAACACC AATTCACAGT GTATTAGTTG CGAACAATGG
AATGGCAGCA GCTAAGTTCA
481 TGCGGAGTGT CCGAACATGG GCTAATGAAA CATTTGGGTC
AGAGAAGGCA ATTCAGTTGA
541 TAGCTATGGC TACTCCAGAA GACATGAGGA TAAATGCAGA
GCACATTAGA ATTGCTGATC
601 AATTTGTTGA AGTACCCGGT GGAACAAACA ATAACAATA
TGCAAATGTC CAACTCATAG
661 TGGAGATAGC AGTGAGAACC GGTGTTTCTG CTGTTTGGCC
TGGTTGGGGC CATGCATCTG
721 AGAATCCTGA ACTTCCAGAT GCACTAAATG CAAACGGAAT
TGTTTTTCTT GGGCCACCAT
781 CATCATCAAT GAACGCACTA GGTGACAAGG TTGGTTCAGC
TCTCATTGCT CAAGCAGCAG
841 GGGTTCCGAC TCTTCCTTGG AGTGGATCAC AGGTGGAAAT
TCCATTAGAA GTTTGTTTGG
901 ACTCGATACC CGCGGAGATG TATAGGAAAG CTTGTGTTAG
TACTACGGAG GAAGCACTTG
961 CGAGTTGTCA GATGATTGGG TATCCCGCCA TGATTAAAGC
ATCATGGGGT GGTGGTGGTA
1021 AAGGGATCCG AAAGGTTAAT AATGACGATG ATGTCAGAGC
ACTGTTTAAG CAAGTGCAAG
1081 GTGAAGTTCC TGGCTCCCCA ATATTTATCA TGAGACTTGC
ATCTCAGAGT CGACATCTTG
1141 AAGTTCAGTT GCTTTGTGAT CAATATGGCA ATGTAGCTGC
GCTTCACAGT CGTGAATGCA
1201 GTGTGCAACG GCGACACCAA AAGATTATTG AGGAAGGACC
AGTTACTGTT GCTCCTCGCG
1261 AGACAGTGAA AGAGCTAGAG CAAGCAGCAA GGAGGCTTGC
TAAGGCTGTG GGTATGTTG
```

FIGURE 4A CONTINUED

1321 GTGCTGCTAC TGTTGAATAT CTCTACAGCA TGGAGACTGG
TGAATACTAT TTTCTGGAAC
1381 TTAATCCACG GTTGCAGGTT GAGCATCCAG TCACCGAGTG
GATAGCTGAA GTAAACTTGC
1441 CTGCAGCTCA AGTTGCAGTT GGAATGGGTA TACCCCTTTG
GCAGGTTCCA GAGATCAGAC
1501 GTTTCTATGG AATGGACAAT GGAGGAGGCT ATGACATTTG
GAGGAAAACA GCAGCTCTTG
1561 CTA CTACTCCATT TAACTTCGAT GAAGTGGATT CTCAATGGCC
AAAGGGTCAT TGTGTAGCAG
1621 TTAGGATAAC CAGTGAGGAT CCAGATGACG GATTCAAGCC
TACCGGTGGA AAAGTAAAGG
1681 AGATCAGTTT TAAAAGCAAG CCAAATGTTT GGGCCTATTT
CTCTGTTAAG TCCGGTGGAG
1741 GCATTTCATGA ATTTGCTGAT TCTCAGTTTG GACATGTTTT
TGCATATGGA GTGTCTAGAG
1801 CAGCAGCAAT AACCAACATG TCTCTTGCGC TAAAAGAGAT
TCAAATTCGT GGAGAAAATC
1861 ATTCAAATGT TGATTACACA GTTGATCTCT TGAATGCCTC
AGACTTCAAA GAAAACAGGA
1921 TTCATACTGG CTGGCTGGAT AACAGAATAG CAATGCGAGT
CCAAGCTGAG AGACCTCCGT
1981 GGTATATTTT AGTGTTTGA GGAGCTCTAT ATAAAACAAT
AACGAGCAAC ACAGACACTG
2041 TTTCTGAATA TGTTAGCTAT CTCGTCAAGG GTCAGATTCC
ACCGAAGCAT ATATCCCTTG
2101 TCCATTCAAC TGTTTCTTTG AATATAGAGG AAAGCAAATA
TACAATTGAA ACTATAAGGA
2161 GCGGACAGGG TAGCTACAGA TTGCGAATGA ATGGATCAGT
TATTGAAGCA AATGTCCAAA
2221 CATTATGTGA TGGTGGACTT TTAATGCAGT TGGATGGAAA
CAGCCATGTA ATTTATGCTG
2281 AAGAAGAGGC CGGTGGTACA CGGCTTCTAA TTGATGGAAA
GACATGCTTG TTACAGAATG
2341 ATCACGATCC TTCAAGGTTA TTAGCTGAGA CACCCTGCAA
ACTTCTTCGT TTCTTGTTG
2401 CCGATGGTGC TCATGTTGAA GCTGATGTAC CATATGCGGA
AGTTGAGGTT ATGAAGATGT
2461 GCATGCCCCCT CTTGTACCT GCTGCTGGTG TCATTAATGT
TTTGTGTCT GAGGGCCAGC
2521 CTATGCAGGC TGGTGATCTT ATAGCAAGAC TTGATCTTGA
TGACCCTTCT GCTGTGAAGA
2581 GAGCTGAGCC ATTTAACGGA TCTTTCCCAG AAATGAGCCT
TCCTATTGCT GCTTCTGGCC

FIGURE 4A CONTINUED

2641 AAGTTCACAA AAGATGTGCC ACAAGCTTGA ATGCTGCTCG
GATGGTCCTT GCAGGATATG
2701 ATCACCCGAT CAACAAAGTT GTACAAGATC TGGTATCCTG
TCTAGATGCT CCTGAGCTTC
2761 CTTTCCTACA ATGGGAAGAG CTTATGTCTG TTTTAGCAAC
TAGACTTCCA AGGCTTCTTA
2821 AGAGCGAGTT GGAGGGTAAA TACAGTGAAT ATAAGTTAAA
TGTTGGCCAT GGAAGAGCA
2881 AGGATTTCCC TTCCAAGATG CTAAGAGAGA TAATCGAGGA
AAATCTTGCA CATGGTTCTG
2941 AGAAGGAAAT TGCTACAAAT GAGAGGCTTG TTGAGCCTCT
TATGAGCCTA CTGAAGTCAT
3001 ATGAGGGTGG CAGAGAAAGC CATGCACACT TTATTGTGAA
GTCCCTTTTC GAGGACTATC
3061 TCTCGGTTGA GGAAGTATTC AGTGATGGCA TTCAGTCTGA
TGTGATTGAA CGCCTGCGCC
3121 AACACATAG TAAAGATCTC CAGAAGGTTG TAGACATTGT
GTTGTCTCAC CAGGGTGTGA
3181 GAAACAAAAC TAAGCTGATA CTAACACTCA TGGAGAAACT
GGTCTATCCA AACCTGCTG
3241 TCTACAAGGA TCAGTTGACT CGCTTTTCCT CCCTCAATCA
CAAAAGATAT TATAAGTTGG
3301 CCCTTAAAGC TAGCGAGCTT CTTGAACAAA CCAAGCTTAG
TGAGCTCCGC ACAAGCATTG
3361 CAAGGAGCCT TTCAGAACTT GAGATGTTTA CTGAAGAAAG
GACGGCCATT AGTGAGATCA
3421 TGGGAGATTT AGTGAAGTCC CCACTGCCAG TTGAAGATGC
ACTGGTTTCT TTGTTTGATT
3481 GTAGTGATCA AACTCTTCAG CAGAGGGTGA TCGAGACGTA
CATATCTCGA TTATACCAGC
3541 CTCATCTTGT CAAGGATAGT ATCCAGCTGA AATATCAGGA
ATCTGGTGTT ATTGCTTTAT
3601 GGGAATTCGC TGAAGCGCAT TCAGAGAAGA GATTGGGTGC
TATGGTTATT GTGAAGTCGT
3661 TAGAATCTGT ATCAGCAGCA ATTGGAGCTG CACTAAAGGG
TACATCACGC TATGCAAGCT
3721 CTGAGGGTAA CATAATGCAT ATTGCTTTAT TGGGTGCTGA
TAATCAAATG CATGGAAGT
3781 AAGACAGTGG TGATAACGAT CAAGCTCAAG TCAGGATAGA
CAAACCTTCT GCGACACTGG
3841 AACAAAATAC TGTCACAGCT GATCTCCGTG CTGCTGGTGT
GAAGGTTATT AGTTGCATTG
3901 TTCAAAGGGA TGGAGCACTC ATGCCTATGC GCCATACCTT
CCTCTTGTCG GATGAAAAGC

FIGURE 4A CONTINUED

3961 TTTGTTATGA GGAAGAGCCG GTTCTCCGGC ATGTGGAGCC
TCCTCTTTCT GCTCTTCTTG
4021 AGTTGGGTAA GTTGAAAGTG AAAGGATACA ATGAGGTGAA
GTATACACCG TCACGTGATC
4081 GTCAGTGGAA CATATACACA CTTAGAAATA CAGAGAACCC
CAAAATGTTG CACAGGGTGT
4141 TTTTCCGAAC TCTTGTGAGG CAACCCGGTG CTTCCAACAA
ATTACATCA GGCAACATCA
4201 GTGATGTTGA AGTGGGAGGA GCTGAGGAAT CTCTTTCATT
TACATCGAGC AGCATATTAA
4261 GATCGCTGAT GACTGCTATA GAAGAGTTGG AGCTTCACGC
GATTAGGACA GGTCACCTCTC
4321 ATATGTTTTT GTGCATATTG AAAGAGCAAA AGCTTCTTGA
TCTTGTTCCC GTTTCAGGGA
4381 ACAAAGTTGT GGATATTGGC CAAGATGAAG CTACTGCATG
CTTGCTTCTG AAAGAAATGG
4441 CTCTACAGAT ACATGAACTT GTGGGTGCAA GGATGCATCA
TCTTTCTGTA TGCCAATGGG
4501 AGGTGAAACT TAAGTTGGAC AGCGATGGGC CTGCCAGTGG
TACCTGGAGA GTTGTAACAA
4561 CCAATGTTAC TAGTCACACC TGCACGTGTTG ATATCTACCG
TGAGGTCGAA GATACAGAAT
4621 CACAGAAACT AGTGTACCAC TCTGCTCCAT CGTCATCTGG
TCCTTTGCAT GGCGTTGCAC
4681 TGAATACTCC ATATCAGCCT TTGAGTGTTA TTGATCTGAA
ACGTTGCTCC GCTAGAAATA
4741 ACAGAACTAC ATACTGCTAT GATTTTCCGT TGGCATTTGA
AACTGCAGTG CAGAAGTCAT
4801 GGTCTAACAT TTCTAGTGAC ACTAACCGAT GTTATGTTAA
AGCGACGGAG CTGGTGTGTTG
4861 CTCACAAGAA CGGGTCATGG GGCACCTCTG TAATTCCTAT
GGAGCGTCCT GCTGGGCTCA
4921 ATGACATTGG TATGGTAGCT TGGATCTTGG ACATGTCCAC
TCCTGAATAT CCCAATGGCA
4981 GGCAGATTGT TGTCATCGCA AATGATATTA CTTTTAGAGC
TGGATCGTTT GGTCCAAGGG
5041 AAGATGCATT TTTTGAAACT GTTACCAACC TAGCTTGTGA
GAGGAAGCTT CCTCTCATCT
5101 ACTTGGCAGC AACTCTGGT GCTCGGATCG GCATAGCAGA
TGAAGTAAAA TCTTGCTTCC
5161 GTGTTGGATG GTCTGATGAT GGCAGCCCTG AACGTGGGTT
TCAATATATT TATCTGACTG
5221 AAGAAGACCA TGCTCGTATT AGCGCTTCTG TTATAGCGCA
CAAGATGCAG CTTGATAATG

FIGURE 4A CONTINUED

5281 GTGAAATTAG GTGGGTTATT GATTCTGTTG TAGGGAAGGA
GGATGGGCTA GGTGTGGAGA
5341 ACATACATGG AAGTGCTGCT ATTGCCAGTG CCTATTCTAG
GGCCTATGAG GAGACATTTA
5401 CGCTTACATT TGTGACTGGA AGGACTGTTG GAATAGGAGC
ATATCTTGCT CGACTTGGCA
5461 TACGGTGCAT ACAGCGTACT GACCAGCCCA TTATCCTAAC
TGGGTTCTCT GCCTTGAACA
5521 AGCTTCTTGG CCGGGAAGTT TACAGCTCCC ACATGCAGTT
GGGTGGCCCC AAAATTATGG
5581 CGACAAACGG TGTTGTCCAT CTGACAGTTT CAGATGACCT
TGAAGGTGTA TCTAATATAT
5641 TGAGGTGGCT CAGCTATGTT CCTGCCAACA TTGGTGGACC
TCTTCCTATT AAAAAATCTT
5701 TGGACCCACC TGACAGACCC GTTGCTTACA TCCCTGAGAA
TACATGCGAT CCTCGTGCTG
5761 CCATCAGTGG CATTGATGAT AGCCAAGGGA AATGGTTGGG
GGGCATGTTC GACAAAGACA
5821 GTTTTGTGGA GACATTTGAA GGATGGGCGA AGTCAGTTGT
TACTGGCAGA GCGAAACTCG
5881 GAGGGATTCC GGTGGGTGTT ATAGCTGTGG AGACACAGAC
TATGATGCAG CTCATCCCTG
5941 CTGATCCAGG CCAGCTTGAT TCCCATGAGC GATCTGTTCC
TCGTGCTGGG CAAGTCTGGT
6001 TTCCAGATTC AGCTACTAAG ACAGCGCAGG CAATGCTGGA
CTTCAACCGT GAAGGATTAC
6061 CTCTGTTCAT CCTTGCTAAC TGGAGAGGCT TCTCTGGTGG
ACAAAGAGAT CTTTTTGAAG
6121 GAATCCTTCA GGCTGGGTCA ACAATTGTTG AGAACCTTAG
GACATACAAT CAGCCTGCCT
6181 TTGTATATAT CCCCAGGCT GCAGAGCTAC GTGGAGGGGC
TTGGGTCGTG ATTGATAGCA
6241 AGATAAATCC AGATCGCATT GAGTTCTATG CTGAGAGGAC
TGCAAAGGGC AATGTTCTCG
6301 AACCTCAAGG GTTGATCGAG ATCAAGTTCA GGTGAGAGGA
ACTCCAAGAG TGCATGGGTA
6361 GGCTTGATCC AGAATTGATA AATCTGAAGG CAAAGCTCCA
GGGAGTAAAG CATGAAAATG
6421 GAAGTCTACC TGAGTCAGAA TCCCTTCAGA AGAGCATAGA
AGCCCGGAAG AAACAGTTGT
6481 TGCCTTTGTA TACTCAAATT GCGGTACGGT TCGCTGAATT
GCATGACACT TCCCTTAGAA
6541 TGGCTGCTAA GGGTGTGATT AAGAAGGTTG TAGACTGGGA
AGATTCTAGG TCGTTCTTCT

FIGURE 4A CONTINUED

6601 ACAAGAGATT ACGGAGGAGG ATATCCGAGG ATGTTCTTGC
GAAGGAAATT AGAGGTGTAA
6661 GTGGCAAGCA GTTTTCTCAC CAATCGGCAA TCGAGCTGAT
CCAGAAATGG TACTTGGCCT
6721 CTAAGGGAGC TGAAACAGGA AGCACTGAAT GGGATGATGA
CGATGCTTTT GTTGCCTGGA
6781 GGGAAAACCC TGAAACTAC CAGGAGTATA TCAAAGAACT
CAGGGCTCAA AGGGTATCTC
6841 AGTTGCTCTC AGATGTTGCA GACTCCAGTC CAGATCTAGA
AGCCTTGCCA CAGGGTCTTT
6901 CTATGCTATT AGAGAAGATG GATCCCTCAA GGAGAGCACA
GTTTGTTGAG GAAGTCAAGA
6961 AAGTCCTTAA ATGATCAGAT GATACCGTCG ACG

FIGURE 4B
AF29895 - *TRITICUM AESTIVUM* PLASTIDAL ACCASE TRANSLATED
PROTEIN (SEQ ID NO: 8)

1 MGSTHLPIVG LNASTTPSLS TIRPVNSAGA AFQPSAPSRT
SKKKSRRVQS
51 LRDGGDGGVS DPNQSIRQGL AGIIDLPKEG TSAPEVDISH
GSEEPGRGSYQ
101 MNGILNEAHN GRHASLSKVV EFCMALGGKT PIHSLVANN
GMAAAKFMRS
151 VRTWANETFG SEKAIQLIAM ATPEDMRINA EHIRIADQFV
EVPGGTNNNN
201 YANVQLIVEI AVRTGVS AVW PGWGHASENP ELPDALNANG
IVFLGPPSSS
251 MNALGDKVGS ALIAQAAGVP TLPWSGSQVE IPLEVCLDSI
PAEMYRKACV
301 STTEEALASC QMIGYPAMIK ASWGGGGKGI RKVNNDDDDR
ALFKQVQGEV
351 PGSPIFIMRL ASQSRHLEVQ LLCDAQGNVA ALHSRDCSVQ
RRHQKIIIEG
401 PVTVAPRETV KELEQAARRL AKAVGYVGAA TVEYLYSMET
GEYYFLELNP
451 RLQVEHPVTE WIAEVNLPAA QVAVGMGIPL WQVPEIRRFY
GMDNGGGYDI
501 WRKTAALATP FNFDEVDSQW PKGHCVAVRI TSED PDDGFK
PTGGKVKEIS
551 FSKSPNVWAY FSVKSGGGIH EFADSQFGHV FAYGVSRAAA
ITNMSLALKE
601 IQIRGEIHSN VDYTVDLLNA SDFKENRIHT GWLDNRIAMR
VQAERPPWYI
651 SVVGGALYKT ITSNTDTVSE YVSYLVKGQI PPKHISLVHS
TVSLNIEESK
701 YTIETIRSGQ GSYRLRMNGS VIEANVQTLC DGGLLMQLDG
NSHVIYAEED
751 AGGTRLLIDG KTCLLQNDHD PSRLLAETPC KLLRFLVADG
AHVEADVPYA
801 EVEVMKMCMP LLSPAAGVIN VLLSEGQPMQ AGDLIARLDL
DDPSAVKRAE
851 PFNGSFPEMS LPAAASQGVH KRCATSLNAA RMVLAGYDHP
INKVVQDLVS
901 CLDAPELPFL QWHEELMSVLA TRLPRLKSE LEGKYSEYKL
NVGHGKSKDF
951 PSKMLREIIE ENLAHGSEKE IATNERLVEP LMSLLKSYEG
GRESHAFIV
1001 KSLFEDYLSV EELFSDGIQS DVIERLRQQH SKDLQKVVDI
VLSHQGVNRK
1051 TKLILTLMEK LVYPNPAVYK DQLTRFSSLN HKRYYKLALK
ASELLEQTKL
1101 SELRTSIARS LSELEMFTEE RTAISEIMGD LVTAPLPVED
ALVSLFDCSD

FIGURE 4B CONTINUED

1151 QTLQQRVIET YISRLYQPHL VKDSIQLKYQ ESGVIALWEF
AEAHSEKRLG
1201 AMVIVKSLES VSAAIGAALK GTSRYASSEG NIMHIALLGA
DNQMHGTEDS
1251 GDNDQAAQVRI DKLSATLEQN TVTADLRAAG VKVISCIVQR
DGALMPMRHT
1301 FLLSDEKLCY EEEPVLRHVE PPLSALLELG KLKVKGYNEV
KYTPSRDRQW
1351 NIYTLRNTEN PKMLHRVFFR TLVRQPGASN KFTSGNISDV
EVGGAEESLS
1401 FTSSSILRSL MTAIEELELH AIRTGHSHMF LCILKEQKLL
DLVPVSGNKV
1451 VDIGQDEATA CLLLKEMALQ IHELVGARMH HLSVCQWEVK
LKLDSDGPAS
1501 GTWRVVTTNV TSHTCTVDIY REVEDTESQK LvyHSAPSSS
GPLHGVALNT
1551 PYQPLSVIDL KRCSARNNRT TYCYDFPLAF ETAVQKSWSN
ISSDTNRCYV
1601 KATELVFAHK NGSWGTPVIP MERPAGLNDI GMVAWILDMS
TPEYPNGRQI
1651 VVIANDITFR AGSFGPREDA FFETVTNLAC ERKLPLIYLA
ANSGARIGIA
1701 DEVKSCFRVG WSDDGSPERG FQYIYLTEED HARISASVIA
HKMQLDNGEI
1751 RWVIDSVVGK EDGLGVENIH GSAAIASAYS RAYEETFTLT
FVTGRTVGIG
1801 AYLARLGIRC IQRTDQPIIL TGFSALNKLL GREVYSSHM
LGGPKIMATN
1851 GVVHLTVSDD LEGVSNILRW LSYVPANIGG PLPITKSLDP
PDRPVAYIPE
1901 NTCDPRAAIS GIDDSQGKWL GGMFDKDSFV ETFEGWAKSV
VTGRAKLGGI
1951 PVGVIAVETQ TMMQLIPADP QQLDSHERSV PRAGQVWFPD
SATKTAQAML
2001 DFNREGLPLF ILANWRGFSG GQRDLFEGIL QAGSTIVENL
RTYNQPAFVY
2051 IPKAAELRGG AWVVIDSKIN PDRIEFYAER TAKGNVLEPQ
GLIEIKFRSE
2101 ELQECMGRLD PELINLKAKL QGVKHENGSL PESESLQKSI
EARKKQLLPL
2151 YTQIAVRFAE LHDTSLRMAA KGVIKKVVDW EDSRSFFYKR
LRRRISEDLV
2201 AKEIRGVSGK QFSHQSAIEL IQKWYLASKG AETGSTEWDD
DDAFVAWREN
2251 PENYQEYIKE LRAQRVSQLL SDVADSSPDL EALPQGLSML
LEKMDPSRRA
2301 QFVEEVKKVL K

FIGURE 5A

AY312171 - *ZEA MAYS* PLASTIDAL ACCASE 1A CDNA (SEQ ID NO: 9)

```
1 AACGACAATG TCACAGCTTG GATTAGCCGC AGCTGCCTCA
AAGGCCTTGC CACTACTCCC
61 TAATCGCCAG AGAAGTTCAG CTGGGACTAC ATTCTCATCA
TCTTCATTAT CGAGGCCCTT
121 AAACAGAAGG AAAAGCCGTA CTCGTTCACT CCGTGATGGC
GGAGATGGGG TATCAGATGC
181 CAAAAAGCAC AGCCAGTCTG TTCGTCAAGG TCTTGCTGGC
ATTATCGACC TCCCAAGTGA
241 GGCACCTTCC GAAGTGGATA TTTCACATGG ATCTGAGGAT
CCTAGGGGGC CAACAGATTC
301 TTATCAAATG AATGGGATTA TCAATGAAAC ACATAATGGA
AGACATGCCT CAGTGTCCAA
361 GGTTGTTGAA TTTTGTGCGG CACTAGGTGG CAAAACACCA
ATTCACAGTA TATTAGTGGC
421 CAACAATGGA ATGGCAGCAG CAAAATTTAT GAGGAGTGTC
CGGACATGGG CTAATGATAC
481 TTTTGGATCT GAGAAGGCAA TTCAACTCAT AGCTATGGCA
ACTCCGGAAG ACATGAGGAT
541 AAATGCAGAA CACATTAGAA TTGCTGACCA ATTCGTAGAG
GTGCCTGGTG GAACAAACAA
601 TAATAACTAC GCCAATGTTC AACTCATAGT GGAGATGGCA
CAAAAACCTAG GTGTTTCTGC
661 TGTTTGGCCT GGTGCGGGTC ATGCTTCTGA GAATCCTGAA
CTGCCAGATG CATTGACCGC
721 AAAAGGGATC GTTTTTCTTG GCCCACCTGC ATCATCAATG
AATGCTTTGG GAGATAAGGT
781 CGGCTCAGCT CTCATTGCTC AAGCAGCCGG GGTCCCAACT
CTTGCTTGA GTGGATCACA
841 TGTTGAAGTT CCATTAGAGT GCTGCTTAGA CGCGATACCT
GAGGAGATGT ATAGAAAAGC
901 TTGCGTTACT ACCACAGAGG AAGCAGTTGC AAGTTGTCAA
GTGGTTGGTT ATCCTGCCAT
961 GATTAAGGCA TCCTGGGGAG GTGGTGGTAA AGGAATAAGA
AAGGTTTCATA ATGATGATGA
1021 GGTTAGAGCG CTGTTTAAGC AAGTACAAGG TGAAGTCCCT
GGCTCCCCAA TATTTGTCAT
1081 GAGGCTTGCA TCCCAGAGTC GGCATCTTGA AGTTCAGTTG
CTTTGTGATC AATATGGTAA
1141 TGTAGCAGCA CTTACAGTC GTGATTGCAG TGTGCAACGG
CGACACCAGA AGATTATTGA
1201 AGAAGGTCCA GTTACTGTTG CTCCTCGTGA GACAGTTAAA
GCACTTGAGC AGGCAGCAAG
1261 GAGGCTTGCT AAGGCTGTGG GTTATGTTGG TGCTGCTACT
GTTGAGTATC TTTACAGCAT
```

FIGURE 5A CONTINUED

1321 GGAAACTGGA GACTACTATT TTCTGGAAC TAATCCCCGA
CTACAGGTTG AGCATCCAGT
1381 CACCGAGTGG ATAGCTGAAG TAAATCTGCC TGCAGCTCAA
GTTGCTGTTG GAATGGGCGAT
1441 ACCTCTTTGG CAGATTCCAG AAATCAGACG TTTCTATGGA
ATGGACTATG GAGGAGGGTA
1501 TGACATTTGG AGGAAAACAG CAGCTCTTGC TACACCATTT
AATTTTGATG AAGTAGATTC
1561 TCAATGGCCA AAGGGCCATT GTGTAGCAGT TAGAATTACT
AGTGAGGACC CAGATGATGG
1621 TTTCAAACCT ACTGGTGGGA AAGTGAAGGA GATAAGTTTT
AAAAGCAAGC CTAATGTTTG
1681 GGCCTACTTC TCAGTAAAGT CTGGTGGAGG CATTTCATGAA
TTTGCTGATT CTCAGTTCGG
1741 ACATGTTTTT GCATATGGGC TCTCTAGATC AGCAGCAATA
ACAAACATGA CTCTTGCAAT
1801 AAAAGAGATT CAAATTCGTG GAGAAATTCA TTCAAATGTT
GATTACACAG TTGACCTCTT
1861 AAATGCTTCA GACTTTAGAG AAAACAAGAT TCATACTGGT
TGGCTCGACA CCAGAATAGC
1921 TATGCGTGTT CAAGCTGAGA GGCCCCCATG GTATATTTCA
GTGGTTGGGG GTGCTTTATA
1981 TAAAACAGTA ACCACCAATG CAGCCACTGT TTCTGAATAT
GTTAGTTATC TCACCAAGGG
2041 CCAGATTCCA CCAAAGCATA TATCCCTTGT CAATTCTACA
GTTAATTTGA ATATAGAAGG
2101 GAGCAAATAC ACAATTGAAA CTGTAAGGAC TGGACATGGT
AGCTACAGGT TGAGAATGAA
2161 TGATTCAACA GTTGAAGCGA ATGTACAATC TTTATGTGAT
GGTGGCCTCT TAATGCAGTT
2221 GGATGGAAAC AGCCATGTAA TTTATGCAGA AGAAGAAGCT
GGTGGTACAC GGCTTCAGAT
2281 TGATGGAAAG ACATGTTTAT TGCAGAATGA CCATGATCCA
TCAAAGTTAT TAGCTGAGAC
2341 ACCCTGCAAA CTTCTTCGTT TCTTGGTTGC TGATGGTGCT
CATGTTGATG CGGATGTACC
2401 ATACGCGGAA GTTGAGGTTA TGAAGATGTG CATGCCTCTC
TTGTCGCCTG CTTCTGGTGT
2461 CATTCAATTGT ATGATGTCTG AGGGCCAGGC ATTGCAGGCT
GGTGATCTTA TAGCAAGGTT
2521 GGATCTTGAT GACCCTTCTG CTGTGAAAAG AGCTGAGCCA
TTTGATGGAA TATTTCCACA
2581 AATGGAGCTC CCTGTTGCTG TCTCTAGTCA AGTACACAAA
AGATATGCTG CAAGTTTGAA

FIGURE 5A CONTINUED

2641 TGCTGCTCGA ATGGTCCTTG CAGGATATGA GCACAATATT
AATGAAGTCG TTCAAGATTT
2701 GGTATGCTGC CTGGACAACC CTGAGCTTCC TTTCTTACAG
TGGGATGAAC TTATGTCTGT
2761 TCTAGCAACG AGGCTTCCAA GAAATCTCAA GAGTGAGTTA
GAGGATAAAT ACAAGGAATA
2821 CAAGTTGAAT TTTTACCATG GAAAAAACGA GGACTTTCCA
TCCAAGTTGC TAAGAGACAT
2881 CATTGAGGAA AATCTTTCTT ATGGTTCAGA GAAGGAAAAAG
GCTACAAATG AGAGGCTTGT
2941 TGAGCCTCTT ATGAACCTAC TGAAGTCATA TGAGGGTGGG
AGAGAGAGCC ATGCACATTT
3001 TGTTGTCAAG TCTCTTTTCG AGGAGTATCT TACAGTGGAA
GAACTTTTTTA GTGATGGCAT
3061 TCAGTCTGAC GTGATTGAAA CATTGCGGCA TCAGCACAGT
AAAGACCTGC AGAAGGTTGT
3121 AGACATTGTG TTGTCTCACC AGGGTGTGAG GAACAAAGCT
AAGCTTGTA CGGCACTTAT
3181 GGAAAAGCTG GTTTATCCAA ATCCTGGTGG TTACAGGGAT
CTGTTAGTTC GCTTTTCTTC
3241 CCTCAATCAT AAAAGATATT ATAAGTTGGC CCTTAAAGCA
AGTGAACCTC TTGAACAAAC
3301 CAACTAAGT GAACTCCGTG CAAGCGTTGC AAGAAGCCTT
TCGGATCTGG GGATGCATAA
3361 GGGAGAAATG AGTATTAAGG ATAACATGGA AGATTTAGTC
TCTGCCCCAT TACCTGTTGA
3421 AGATGCTCTG ATTTCTTTGT TTGATTACAG TGATCGAACT
GTTGAGCAGA AAGTGATTGA
3481 GACATACATA TCACGATTGT ACCAGCCTCA TCTTGTAAG
GATAGCATCC AAATGAAATT
3541 CAAGGAATCT GGTGCTATTA CTTTTTGGGA ATTTTATGAA
GGGCATGTTG ATACTAGAAA
3601 TGGACATGGG GCTATTATTG GTGGGAAGCG ATGGGGTGCC
ATGGTCGTTT TCAAATCACT
3661 TGAATCTGCG TCAACAGCCA TTGTGGCTGC ATTAAAGGAT
TCGGCACAGT TCAACAGCTC
3721 TGAGGGCAAC ATGATGCACA TTGCATTATT GAGTGCTGAA
AATGAAAGTA ATATAAGTGG
3781 AATAAGTGAT GATCAAGCTC AACATAAGAT GGAAAAGCTT
AGCAAGATAC TGAAGGATAC
3841 TAGCGTTGCA AGTGATCTCC AAGCTGCTGG TTTGAAGGTT
ATAAGTTGCA TTGTTCAAAG
3901 AGATGAAGCT CGCATGCCAA TCGCCACAC ATTCTCTGG
TTGGATGACA AGAGTTGTTA

FIGURE 5A CONTINUED

3961 TGAAGAAGAG CAGATTCTCC GGCATGTGGA GCCTCCCCTC
TCTACACTTC TTGAATTGGA
4021 TAAGTTGAAG GTGAAAGGAT ACAATGAAAT GAAGTATACT
CCTTCGCGTG ACCGCCAATG
4081 GCATATCTAC AACTAAGAA ATACTGAAAA CCCCCAAATG
TTGCATAGGG TGTTTTTCCG
4141 AACTATTGTC AGGCAACCCA ATGCAGGCAA CAAGTTTACA
TCGGCTCAGA TCAGCGACGC
4201 TGAAGTAGGA TGTCCCGAAG AATCTCTTTC ATTTACATCA
AATAGCATCT TAAGATCATT
4261 GATGACTGCT ATTGAAGAAT TAGAGCTTCA TGCAATTAGG
ACAGGTCATT CTCACATGTA
4321 TTTGTGCATA CTGAAAGAGC AAAAGCTTCT TGACCTCATT
CCATTTTCAG GGAGTACAAT
4381 TGTTGATGTT GGCCAAGATG AAGCTACCGC TTGTTCACTT
TTAAAATCAA TGGCTTTGAA
4441 GATACATGAG CTTGTTGGTG CAAGGATGCA TCATCTGTCT
GTATGCCAGT GGGAGGTGAA
4501 ACTCAAGTTG GACTGTGATG GCCCTGCAAG TGGTACCTGG
AGAGTTGTAA CTACAAATGT
4561 TACTGGTCAC ACCTGCACCA TTGATATATA CCGAGAAAGTG
GAGGAAATAG AATCGCAGAA
4621 GTTAGTGTAC CATTGAGCCA CTCGTCAGC TGGACCATTG
CATGGTGTG CACTGAATAA
4681 TCCATATCAA CCTTTGAGTG TGATTGATCT AAAGCGCTGC
TCTGCTAGGA ACAACAGAAC
4741 AACATATTGC TATGATTTTC CGCTGGCCTT TGAAACTGCA
CTGCAGAAGT CATGGCAGAC
4801 CAATGGCTCT ACTGTTTCTG AAGGCAATGA AAATAGTAAA
TCCTACGTGA AGGCAACTGA
4861 GCTAGTGTTT GCTGAAAAAC ATGGGTCTCTG GGGCACTCCT
ATAATTCCGA TGGAACGCCC
4921 TGCTGGGCTC AACGACATTG GTATGGTCGC TTGGATCATG
GAGATGTCAA CACCTGAATT
4981 TCCCAATGGC AGGCAGATTA TTGTTGTAGC AAATGATATC
ACTTTCAGAG CTGGATCATT
5041 TGGCCCAAGG GAAGATGCAT TTTTGA AAC TGTCACTAAC
CTGGCTTGCG AAAGGAAACT
5101 TCCTCTTATA TACTTGGCAG CAAACTCTGG TGCTAGGATT
GGCATAGCTG ATGAAGTAAA
5161 ATCTTGCTTC CGTGTTGGAT GGTCTGACGA AGGCAGTCCT
GAACGAGGGT TTCAGTACAT
5221 CTATCTGACT GAAGAAGACT ATGCTCGCAT TAGCTCTTCT
GTTATAGCAC ATAAGCTGGA

FIGURE 5A CONTINUED

5281 GCTAGATAGT GGTGAAATTA GGTGGATTAT TGA CTCTGTT
GTGGGCAAGG AGGATGGGCT
5341 TGGTGTCTGAG AACATACATG GAAGTGCTGC TATTGCCAGT
GCTTATTCTA GGGCATATGA
5401 GGAGACATTT AACTTACAT TTGTGACTGG GCGGACTGTA
GGAATAGGAG CTTATCTTGC
5461 TCGACTTGGT ATACGGTGCA TACAGCGTCT TGACCAGCCT
ATTATTTTAA CAGGGTTTTTC
5521 TGCCCTGAAC AAGCTCCTTG GGCGGGAAGT GTACAGCTCC
CACATGCAGC TTGGTGGTCC
5581 TAAGATCATG GCGACTAATG GTGTTGTCCA CCTCACTGTT
CCAGATGACC TTGAAGGTGT
5641 TTCCAATATA TTGAGGTGGC TCAGCTATGT TCCTGCAAAC
ATTGGTGGAC CTCTTCCTAT
5701 TACCAAACCT CTGGACCCTC CAGACAGACC TGTGCTTAC
ATCCCTGAGA ACACATGCGA
5761 TCCACGTGCA GCTATCTGTG GTGTAGATGA CAGCCAAGGG
AAATGGTTGG GTGGTATGTT
5821 TGACAAAGAC AGCTTTGTGG AGACATTTGA AGGATGGGCA
AAAACAGTGG TTA CTGGCAG
5881 AGCAAAGCTT GGAGGAATTC CTGTGGGCGT CATAGCTGTG
GAGACACAGA CCATGATGCA
5941 GATCATCCCT GCTGATCCAG GTCAGCTTGA TTCCCATGAG
CGATCTGTCC CTCGTGCTGG
6001 ACAAGTGTGG TTCCCAGATT CTGCAACCAA GACCGCTCAG
GCATTATTAG ACTTCAACCG
6061 TGAAGGATTG CCTCTGTTCA TCCTGGCTAA TTGGAGAGGC
TTCTCTGGTG GACAAAGAGA
6121 TCTCTTTGAA GGAATTCTTC AGGCTGGGTC AACAAATTGC
GAGAACCTTA GGACATATAA
6181 TCAGCCTGCT TTTGTGTACA TTCCTATGGC TGGAGAGCTT
CGTGGAGGAG CTTGGGTTGT
6241 GGTGATAGC AAAATAAATC CAGACCGCAT TGAGTGTTAT
GCTGAAAGGA CTGCCAAAGG
6301 TAATGTTCTC GAACCTCAAG GGTTAATTGA AATCAAGTTC
AGGTCAGAGG AACTCCAAGA
6361 CTGTATGGGT AGGCTTGACC CAGAGTTGAT AAATCTGAAA
GCAAACTCC AAGATGTAAA
6421 TCATGGAAAT GGAAGTCTAC CAGACATAGA AGGGATTCCG
AAGAGTATAG AAGCACGTAC
6481 GAAACAGTTG CTGCCTTTAT ATACCCAGAT TGCAATACGG
TTTGCTGAAT TGCATGATAC
6541 TTCCCTAAGA ATGGCAGCTA AAGGTGTGAT TAAGAAAGTT
GTAGACTGGG AAGAATCACG

FIGURE 5A CONTINUED

6601 CTCGTTCTTC TATAAAAGGC TACGGAGGAG GATCGCAGAA
GATGTTCTTG CAAAAGAAAT
6661 AAGGCAGATA GTCGGTGATA AATTTACGCA CCAATTAGCA
ATGGAGCTCA TCAAGGAATG
6721 GTACCTTGCT TCTCAGGCCA CAACAGGAAG CACTGGATGG
GATGACGATG ATGCTTTTGT
6781 TGCCTGGAAG GACAGTCCTG AAAACTACAA GGGGCATATC
CAAAAGCTTA GGGCTCAAAA
6841 AGTGTCTCAT TCGCTCTCTG ATCTTGCTGA CTCCAGTTCA
GATCTGCAAG CATTCTCGCA
6901 GGGTCTTTCT ACGCTATTAG ATAAGATGGA TCCCTCTCAG
AGAGCGAAGT TTGTTCAAGG
6961 AGTCAAGAAG GTCCTTGATT GATGATACCA ACACATCCAA
CACAATGTGT GCATGTCACA
7021 TCTTTTTTGT CTAGTACATA CATAGAAGGA TATTGCTTGG
TCTTGATTGA TCATGTCTGA
7081 TTAAAGTCGA CTATTATTTT TTGGATTTTT CTTTTGGACC
TGGTGCTATG GTTGATGGAT
7141 GTATATTGGA TATGTGCGTT CTGCCAGGTG TAAGCACAAA
GGTTTAGACA GACCGAGAGC
7201 AAGAGCGAGT GAACCTGTTC TGGTTTTGCA GTGGTTCAGT
AAGGCAGAAA GTTGTTAAAC
7261 CGTAGTTCTG AGATGTATTA CCAGTGGCGC CATGCTGTAC
TTTTAGGGTG TATAATGCGG
7321 ATAC

FIGURE 5B
AY312171 – ZEA MAYS PLASTIDAL ACCASE 1A TRANSLATED
PROTEIN (SEQ ID NO: 10)

1 MSQLGLAAAA SKALPLLPNR QRSSAGTTFS SSSLSRPLNR
RKSRTSLRD
51 GGDGVSDAKK HSQSVRQGLA GIIDLPEAP SEVDISHGSE
DPRGPTDSYQ
101 MNGIINETHN GRHASVSKVV EFCAALGGKT PIHSILVANN
GMAAAKFMRS
151 VRTWANDTFG SEKAIQLIAM ATPEDMRINA EHIRIADQFV
EVPGGTNNNN
201 YANVQLIVEM AQKLGVS AVW PGWGHASENP ELPDALTAKG
IVFLGPPASS
251 MNALGDKVGS ALIAQAAGVP TLAWSGSHVE VPLECCLDAI
PEEMYRKACV
301 TTTEEAVASC QVVGYPAMIK ASWGGGGKGI RKVHNDDEV
ALFKQVQGEV
351 PGSPIFVMRL ASQSRHLEVQ LLC DQYGNVA ALHSRDCSVQ
RRHQKIIIEG
401 PVTVAPRETV KALEQAARRL AKAVGYVGAA TVEYLYSMET
GDYYFLELNP
451 RLQVEHPVTE WIAEVNLPAA QVAVGMGIPL WQIPEIRRFY
GMDYGGGYDI
501 WRKTAALATP FNFDEVDSQW PKGHC VAVRI TSEDPDDGFK
PTGGKVKEIS
551 FKSKPNVWAY FSVKSGGGIH EFADSQFGHV FAYGLSRSA
ITNMTLALKE
601 IQIRGEIHSN VDYTVDLLNA SDFRENKIHT GWLDTRIAMR
VQAERPPWYI
651 SVVGGALYKT VTTNAATVSE YVSYLTGQI PPKHISLVNS
TVNLNIEGSK
701 YTIETVRTGH GSYRLRMNDS TVEANVQSLC DGGLLMQLDG
NSHVIYAE
751 AGGTRLQIDG KTCLLQNDHD PSKLLAETPC KLLRFLVADG
AHVDADVPYA
801 EVEVMKMCMP LLSPASGVH CMMSEGQALQ AGDLIARLDL
DDPSAVKRAE
851 PFDGIFPQME LPVAVSSQVH KRYAASLNAA RMVLAGYEH
INEVVQDLVC
901 CLDNPELPFL QWDELMSVLA TRLPRNLKSE LEDKYKEYKL
NFYHGKNE
951 PSKLLRDIIE ENLSYGSEKE KATNERLVEP LMNLLKSYEG
GRESHAFVV
1001 KSLFEEYLTV EELFSDGIQS DVIETLRHQH SKDLQKVVDI
VLSHQGV
1051 AKLVTALMEK LVYPNPGGYR DLLVRFSSLN HKRYYKLALK
ASELLEQTKL
1101 SELRASVARS LSDLGMHKGE MSIKDNMEDL VSAPLPVEDA
LISLFDYS

FIGURE 5B CONTINUED

1151 TVQQKVIETY ISRLYQPHLV KDSIQMKFKE SGAITFWEFY
EGHVDTRNGH
1201 GAIIGGKRWG AMVVLKSLES ASTAIVAALK DSAQFNSSEG
NMMHIALLSA
1251 ENESNISGIS DDQAQHKMEK LSKILKDTSV ASDLQAAGLK
VISCIVQRDE
1301 ARMPMRHTFL WLDDKSCYEE EQILRHVEPP LSTLLELDKL
KVKGYNEMKY
1351 TPSRDRQWHI YTLRNTENPK MLHRVFFRTI VRQPNAGNKF
TSAQISDAEV
1401 GCPEESLSFT SNSILRSLMT AIEEELHAI RTGSHSHMYLC
ILKEQKLLDL
1451 IPFSGSTIVD VGQDEATACS LLKSMALKIH ELVGARMHHL
SVCQWEVKLK
1501 LDCDGPASGT WRVVTNTVTG HTCTIDIYRE VEEIESQKLV
YHSATSSAGP
1551 LHGVALNNPY QPLSVIDLKR CSARNNRTTY CYDFPLAFET
ALQKSWQTNG
1601 STVSEGNENS KSYVKATELV FAEKHGSWGT PIIPMERPAG
LNDIGMVAWI
1651 MEMSTPEFPN GRQIIVVAND ITFRAGSFGP REDAFFETVT
NLACERKLPL
1701 IYLAANS GAR IGIADDEVKSC FRVGWSDEGS PERGFQYIYL
TEEDYARISS
1751 SVIAHKLELD SGEIRWIIDS VVGKEDGLGV ENIHGSAAIA
SAYSRA YEET
1801 FTLTFVTGRT VGIGAYLARL GIRCIQRLDQ PIILTGFSA
NKLLGREVYS
1851 SHMQLGGPKI MATNGVVHLT VPDDLEGVSN ILRWLSYVPA
NIGGPLPITK
1901 PLDPPDRPVA YIPENTCDPR AAICGVDDSQ GKWLGGMF
DSFVETFE GW
1951 AKTVVTGRAK LGGIPVGVIA VETQTMMQII PADPGQLDS
ERSVPRAGQV
2001 WFPDSATKTA QALLDFNREG LPLFILANWR GFSGGQRDL
EGILQAGSTI
2051 VENLR TYNQP AFVYIPMAGE LRGGAWVVVD SKINPDRIE
YAERTAKGNV
2101 LEPQGLIEIK FRSEELQDCM GRDPPELINL KAKLQDVNH
NGSLPDIEGI
2151 RKSIEARTKQ LLPLYTQIAI RFAELHDTSL RMAAKGVIK
VVDWEESRSF
2201 FYKRLRRRIA EDVLAKEIRQ IVGDKFTHQL AMELIKEWYL
ASQATTGSTG
2251 WDDDDAFVAW KDSPENYKGH IQKLRAQKVS HSLSDLADSS
SDLQAFSQGL
2301 STLLDKMDPS QRAK FVQEVK KVL D

FIGURE 6A

AY312172 - *ZEA MAYS* PLASTIDAL ACCASE 1B CDNA (SEQ ID NO: 11)

```
1 AACGACAATG TCACAGCTTG GATTAGCCGC AGCTGCCTCA
AAGGCCTTGC CACTACTCCC
61 TAATCGCCAG AGAAGTTCAG CTGGGACTAC ATTCTCATCA
TCTTCATTAT CGAGGCCCTT
121 AAACAGAAGG AAAAGCCGTA CTCGTTCACT CCGTGATGGC
GGAGATGGGG TATCAGATGC
181 CAAAAAGCAC AGCCAGTCTG TTCGTCAAGG TCTTGCTGGC
ATTATCGACC TCCCAAGTGA
241 GGCACCTTCC GAAGTGGATA TTTCACATGG ATCTGAGGAT
CCTAGGGGGC CAACAGATTC
301 TTATCAAATG AATGGGATTA TCAATGAAAC ACATAATGGA
AGACATGCCT CAGTGTCCAA
361 GGTTGTTGAA TTTTGTGCGG CACTAGGTGG CAAAACACCA
ATTCACAGTA TATTAGTGGC
421 CAACAATGGA ATGGCAGCAG CAAAATTTAT GAGGAGTGTC
CGGACATGGG CTAATGATAC
481 TTTTGGATCT GAGAAGGCAA TTCAACTCAT AGCTATGGCA
ACTCCGGAAG ACATGAGGAT
541 AAATGCAGAA CACATTAGAA TTGCTGACCA ATTCGTAGAG
GTGCCTGGTG GAACAAACAA
601 TAATAACTAC GCCAATGTTC AACTCATAGT GGAGATGGCA
CAAAAACCTAG GTGTTTCTGC
661 TGTTTGGCCT GGTGCGGGTC ATGCTTCTGA GAATCCTGAA
CTGCCAGATG CATTGACCGC
721 AAAAGGGATC GTTTTTCTTG GCCCACCTGC ATCATCAATG
AATGCTTTGG GAGATAAGGT
781 CGGCTCAGCT CTCATTGCTC AAGCAGCCGG GGTCCCAACT
CTTGCTCGGA GTGGATCACA
841 TGTTGAAGTT CCATTAGAGT GCTGCTTAGA CGCGATACCT
GAGGAGATGT ATAGAAAAGC
901 TTGCGTTACT ACCACAGAGG AAGCAGTTGC AAGTTGTCAA
GTGGTTGGTT ATCCTGCCAT
961 GATTAAGGCA TCCTGGGGAG GTGGTGGTAA AGGAATAAGA
AAGGTTTCATA ATGATGATGA
1021 GGTTAGAGCG CTGTTTAAGC AAGTACAAGG TGAAGTCCCT
GGCTCCCCAA TATTTGTCAT
1081 GAGGCTTGCA TCCCAGAGTC GGCATCTTGA AGTTCAGTTG
CTTTGTGATC AATATGGTAA
1141 TGTAGCAGCA CTTACAGTC GTGATTGCAG TGTGCAACGG
CGACACCAGA AGATTATTGA
1201 AGAAGGTCCA GTTACTGTTG CTCCTCGTGA GACAGTTAAA
GCACTTGAGC AGGCAGCAAG
1261 GAGGCTTGCT AAGGCTGTGG GTTATGTTGG TGCTGCTACT
GTTGAGTATC TTTACAGCAT
```

FIGURE 6A CONTINUED

1321 GGAAACTGGA GACTACTATT TTCTGGAAC TAATCCCCGA
CTACAGGTTG AGCATCCAGT
1381 CACCGAGTGG ATAGCTGAAG TAAATCTGCC TGCAGCTCAA
GTTGCTGTTG GAATGGGCGAT
1441 ACCTCTTTGG CAGATTCCAG AAATCAGACG TTTCTATGGA
ATGGACTATG GAGGAGGGTA
1501 TGACATTTGG AGGAAAACAG CAGCTCTTGC TACACCATTT
AATTTTGATG AAGTAGATTC
1561 TCAATGGCCA AAGGGCCATT GTGTAGCAGT TAGAATTACT
AGTGAGGACC CAGATGATGG
1621 TTTCAAACCT ACTGGTGGGA AAGTGAAGGA GATAAGTTTT
AAAAGCAAGC CTAATGTTTG
1681 GGCCTACTTC TCAGTAAAGT CTGGTGGAGG CATTTCATGAA
TTTGCTGATT CTCAGTTCGG
1741 ACATGTTTTT GCATATGGGC TCTCTAGATC AGCAGCAATA
ACAAACATGA CTCTTGCAAT
1801 AAAAGAGATT CAAATTCGTG GAGAAATTCA TTCAAATGTT
GATTACACAG TTGACCTCTT
1861 AAATGCTTCA GACTTTAGAG AAAACAAGAT TCATACTGGT
TGGCTCGACA CCAGAATAGC
1921 TATGCGTGTT CAAGCTGAGA GGCCCCCATG GTATATTTCA
GTGGTTGGAG GTGCTTTATA
1981 TAAAACAGTA ACCACCAATG CAGCCACTGT TTCTGAATAT
GTTAGTTATC TCACCAAGGG
2041 CCAGATTCCA CCAAAGCATA TATCCCTTGT CAATTCTACA
GTTAATTTGA ATATAGAAGG
2101 GAGCAAATAC ACAATTGAAA CTGTAAGGAC TGGACATGGT
AGCTACAGGT TGAGAATGAA
2161 TGATTCAACA GTTGAAGCGA ATGTACAATC TTTATGTGAT
GGTGGCCTCT TAATGCAGTT
2221 GGATGGAAAC AGCCATGTAA TTTATGCAGA AGAAGAAGCT
GGTGGTACAC GGCTTCAGAT
2281 TGATGGAAAG ACATGTTTAT TGCAGAATGA CCATGATCCA
TCAAAGTTAT TAGCTGAGAC
2341 ACCCTGCAAA CTTCTTCGTT TCTTGGTTGC TGATGGTGCT
CATGTTGATG CGGATGTACC
2401 ATACGCGGAA GTTGAGGTTA TGAAGATGTG CATGCCTCTC
TTGTCACCTG CTTCTGGTGT
2461 CATTCATTGT ATGATGTCTG AGGGCCAGGC ATTGCAGGCT
GGTGATCTTA TAGCAAGGTT
2521 GGATCTTGAT GACCCTTCTG CTGTGAAAAG AGCTGAGCCA
TTTGATGGAA TATTTCCACA
2581 AATGGAGCTC CCTGTTGCTG TCTCTAGTCA AGTACACAAA
AGATATGCTG CAAGTTTGAA

FIGURE 6A CONTINUED

2641 TGCTGCTCGA ATGGTCCTTG CAGGATATGA GCACAATATT
AATGAAGTCG TTCAAGATTT
2701 GGTATGCTGC CTGGACAACC CTGAGCTTCC TTTCTTACAG
TGGGATGAAC TTATGTCTGT
2761 TCTAGCAACG AGGCTTCCAA GAAATCTCAA GAGTGAGTTA
GAGGATAAAT ACAAGGAATA
2821 CAAGTTGAAT TTTTACCATG GAAAAAACGA GGACTTTCCA
TCCAAGTTGC TAAGAGACAT
2881 CATTGAGGAA AATCTTTCTT ATGGTTCAGA GAAGGAAAAG
GCTACAAATG AGAGGCTTGT
2941 TGAGCCTCTT ATGAACCTAC TGAAGTCATA TGAGGGTGGG
AGAGAGAGCC ATGCACATTT
3001 TGTTGTCAAG TCTCTTTTCG AGGAGTATCT TACAGTGGAA
GAACTTTTTTA GTGATGGCAT
3061 TCAGTCTGAC GTGATTGAAA CATTGCGGCA TCAGCACAGT
AAAGACCTGC AGAAGGTTGT
3121 AGACATTGTG TTGTCTCACC AGGGTGTGAG GAACAAAGCT
AAGCTTGTA CGGCACTTAT
3181 GGAAAAGCTG GTTTATCCAA ATCCTGGTGG TTACAGGGAT
CTGTTAGTTC GCTTTTCTTC
3241 CCTCAATCAT AAAAGATATT ATAAGTTGGC CCTTAAAGCA
AGTGAACCTC TTGAACAAAC
3301 CAACTAAGT GAACTCCGTG CAAGCGTTGC AAGAAGCCTT
TCGGATCTGG GGATGCATAA
3361 GGGAGAAATG AGTATTAAGG ATAACATGGA AGATTTAGTC
TCTGCCCCAT TACCTGTTGA
3421 AGATGCTCTG ATTTCTTTGT TTGATTACAG TGATCGAACT
GTTCAGCAGA AAGTGATTGA
3481 GACATACATA TCACGATTGT ACCAGCCTCA TCTTGTAAG
GATAGCATCC AAATGAAATT
3541 CAAGGAATCT GGTGCTATTA CTTTTTGGGA ATTTTATGAA
GGGCATGTTG ATACTAGAAA
3601 TGGACATGGG GCTATTATTG GTGGGAAGCG ATGGGGTGCC
ATGGTCGTTT TCAAATCACT
3661 TGAATCTGCG TCAACAGCCA TTGTGGCTGC ATTAAAGGAT
TCGGCACAGT TCAACAGCTC
3721 TGAGGGCAAC ATGATGCACA TTGCATTATT GAGTGCTGAA
AATGAAAGTA ATATAAGTGG
3781 AATAAGCAGT GATGATCAAG CTCAACATAA GATGGAAAAG
CTTAGCAAGA TACTGAAGGA
3841 TACTAGCGTT GCAAGTGATC TCCAAGCTGC TGGTTTGAAG
GTTATAAGTT GCATTGTTCA
3901 AAGAGATGAA GCTCGCATGC CAATGCGCCA CACATTCCTC
TGTTTGGATG ACAAGAGTTG

FIGURE 6A CONTINUED

3961 TTATGAAGAA GAGCAGATTC TCCGGCATGT GGAGCCTCCC
CTCTCTACAC TTCTTGAATT
4021 GGATAAGTTG AAGGTGAAAG GATACAATGA AATGAAGTAT
ACTCCTTCGC GTGACCGCCA
4081 ATGGCATATC TACACACTAA GAAATACTGA AAACCCCAAA
ATGTTGCATA GGGTGTTTTT
4141 CCGAACTATT GTCAGGCAAC CCAATGCAGG CAACAAGTTT
ACATCGGCTC AGATCAGCGA
4201 CGCTGAAGTA GGATGTCCCG AAGAATCTCT TTCATTTACA
TCAAATAGCA TCTTAAGATC
4261 ATTGATGACT GCTATTGAAG AATTAGAGCT TCATGCAATT
AGGACAGGTC ATTCTCACAT
4321 GTATTTGTGC ATACTGAAAG AGCAAAAGCT TCTTGACCTC
ATTCCATTTT CAGGGAGTAC
4381 AATTGTTGAT GTTGCCCAAG ATGAAGCTAC CGCTTGTTCA
CTTTTAAAAT CAATGGCTTT
4441 GAAGATACAT GAGCTTGTTG GTGCAAGGAT GCATCATCTG
TCTGTATGCC AGTGGGAGGT
4501 GAAACTCAAG TTGGACTGTG ATGGCCCTGC AAGTGGTACC
TGGAGAGTTG TAACTACAAA
4561 TGTTACTGGT CACACCTGCA CCATTGATAT ATACCGAGAA
GTGGAGGAAA TAGAATCGCA
4621 GAAGTTAGTG TACCATTGAG CCACTTCGTC AGCTGGACCA
TTGCATGGTG TTGCACTGAA
4681 TAATCCATAT CAACCTTTGA GTGTGATTGA TCTAAAGCGC
TGCTCTGCTA GGAACAACAG
4741 AACAACATAT TGCTATGATT TTCCGCTGGC CTTTGAAACT
GCACTGCAGA AGTCATGGCA
4801 GTCCAATGGC TCTACTGTTT CTGAAGGCAA TGAAAATAGT
AAATCCTACG TGAAGGCAAC
4861 TGAGCTAGTG TTTGCTGAAA AACATGGGTC CTGGGGCACT
CCTATAATTC CGATGGAACG
4921 CCCTGCTGGG CTCAACGACA TTGGTATGGT CGCTTGATC
ATGGAGATGT CAACACCTGA
4981 ATTTCCCAAT GGCAGGCAGA TTATTGTTGT AGCAAATGAT
ATCACTTTCA GAGCTGGATC
5041 ATTTGGCCCA AGGGAAGATG CATTTTTTGA AACTGTCAC
AACCTGGCTT GCGAAAGGAA
5101 ACTTCCTCTT ATATACTTGG CAGCAAACCTC TGGTGCTAGG
ATTGGCATAG CTGATGAAGT
5161 AAAATCTTGC TTCCGTGTTG GATGGTCTGA CGAAGGCAGT
CCTGAACGAG GGTTTCAGTA
5221 CATCTATCTG ACTGAAGAAG ACTATGCTCG CATTAGCTCT
TCTGTTATAG CACATAAGCT

FIGURE 6A CONTINUED

5281 GGAGCTAGAT AGTGGTGAAA TTAGGTGGAT TATTGACTCT
GTTGTGGGCA AGGAGGATGG
5341 GCTTGGTGTC GAGAACATAC ATGGAAGTGC TGCTATTGCC
AGTGCTTATT CTAGGGCATA
5401 TGAGGAGACA TTTACACTTA CATTTGTGAC TGGGCGGACT
GTAGGAATAG GAGCTTATCT
5461 TGCTCGACTT GGTATACGGT GCATACAGCG TCTTGACCAG
CCTATTATTT TAACAGGGTT
5521 TTCTGCCCTG AACAAAGCTCC TTGGGCGGGA AGTGTACAGC
TCCCACATGC AGCTTGGTGG
5581 TCCTAAGATC ATGGCGACTA ATGGTGTGT CCACCTCACT
GTTCCAGATG ACCTTGAAGG
5641 TGTTTCCAAT ATATTGAGGT GGCTCAGCTA TGTTCCCTGCA
AACATTGGTG GACCTCTTCC
5701 TATTACCAAA CCTCTGGACC CTCCAGACAG ACCTGTTGCT
TACATCCCTG AGAACACATG
5761 CGATCCACGT GCAGCTATCT GTGGTGTAGA TGACAGCCAA
GGGAAATGGT TGGGTGGTAT
5821 GTTTGACAAA GACAGCTTTG TGGAGACATT TGAAGGATGG
GCAAAAACAG TGGTTACTGG
5881 CAGAGCAAAG CTTGGAGGAA TTCCTGTGGG CGTCATAGCT
GTGGAGACAC AGACCATGAT
5941 GCAGATCATC CCTGCTGATC CAGGTCAGCT TGATTCCCAT
GAGCGATCTG TCCCTCGTGC
6001 TGGACAAGTG TGGTTCCCAG ATTCTGCAAC CAAGACCGCT
CAGGCATTAT TAGACTTCAA
6061 CCGTGAAGGA TTGCCTCTGT TCATCCTGGC TAATTGGAGA
GGCTTCTCTG GTGGACAAAG
6121 AGATCTCTTT GAAGGAATTC TTCAGGCTGG GTCAACAATT
GTCGAGAACC TTAGGACATC
6181 TAATCAGCCT GCTTTTGTGT ACATTCCTAT GGCTGGAGAG
CTTCGTGGAG GAGCTTGGGT
6241 TGTGGTCGAT AGCAAAATAA ATCCAGACCG CATTGAGTGT
TATGCTGAAA GGAAGTCCAA
6301 AGGTAATGTT CTCGAACCTC AAGGGTTAAT TGAAATCAAG
TTCAGGTCAG AGGAACTCCA
6361 AGACTGTATG GGTAGGCTTG ACCCAGAGTT GATAAATCTG
AAAGCAAAAC TCCAAGATGT
6421 AAATCATGGA AATGGAAGTC TACCAGACAT AGAAGGGATT
CGGAAGAGTA TAGAAGCACG
6481 TACGAAACAG TTGCTGCCTT TATATACCCA GATTGCAATA
CGGTTTGCTG AATTGCATGA
6541 TACTTCCCTA AGAATGGCAG CTAAAGGTGT GATTAAGAAA
GTTGTAGACT GGGAAGAATC

FIGURE 6A CONTINUED

6601 ACGCTCGTTC TTCTATAAAA GGCTACGGAG GAGGATCGCA
GAAGATGTTC TTGCAAAAGA
6661 AATAAGGCAG ATAGTCGGTG ATAAATTTAC GCACCAATTA
GCAATGGAGC TCATCAAGGA
6721 ATGGTACCTT GCTTCTCAGG CCACAACAGG AAGCACTGGA
TGGGATGACG ATGATGCTTT
6781 TGTTGCCTGG AAGGACAGTC CTGAAAATA CAAGGGGGCAT
ATCCAAAAGC TTAGGGGCTCA
6841 AAAAGTGTCT CATTGCTCT CTGATCTTGC TGA CTCCAGT
TCAGATCTGC AAGCATTCTC
6901 GCAGGGTCTT TCTACGCTAT TAGATAAGAT GGATCCCTCT
CAGAGAGCGA AGTTTGTTCA
6961 GGAAGTCAAG AAGGTCCTTG ATTGATGATA CCAACACATC
CAACACAATG TGTGCATGTC
7021 ACATCTTTTT GTTCTAGTAC ATACATAGAA GGATATTGCT
TGGTCTTGAT TGATCATGTC
7081 TGATTTAAGT CGACTATTAT TTCTTGATT TTTCTTTTGG
ACCTGGTGCT ATGGTTGATG
7141 GATGTATATT GGATATGTGC GTTCTGCCAG GTGTAAGCAC
AAAGGTTTAG ACAGACCGAG
7201 AGCAAGAGCG AGTGAACCTG TTCTGGTTTT GCAGTGGTTC
AGTAAGGCAG AAAGTTGTTA
7261 AACCGTAGTT CTGAGATGTA TTACCAGTGG CGCCATGCTG
TACTTTTAGG GTGTATAATG
7321 CGGATAC

FIGURE 6B
AY312172 – ZEA MAYS PLASTIDAL ACCASE 1B TRANSLATED
PROTEIN (SEQ ID NO: 12)

1 MSQLGLAAAA SKALPLLPNR QRSSAGTTFS SSSLSRPLNR
RKSRTSLRD
51 GGDGVSDAKK HSQSVRQGLA GIIDLPEAP SEVDISHGSE
DPRGPTDSYQ
101 MNGIINETHN GRHASVSKVV EFCAALGGKT PIHSILVANN
GMAAAKFMRS
151 VRTWANDTFG SEKAIQLIAM ATPEDMRINA EHIRIADQFV
EVPGGTNNNN
201 YANVQLIVEM AQKLGVS AVW PGWGHASENP ELPDALTAKG
IVFLGPPASS
251 MNALGDKVGS ALIAQAAGVP TLARSGSHVE VPLECCLDAI
PEEMYRKACV
301 TTTEEAVASC QVVGYPAMIK ASWGGGGKGI RKVHNDDEV
ALFKQVQGEV
351 PGSPIFVMRL ASQSRHLEVQ LLCQYGNVA ALHSRDCSVQ
RRHQKIIIEG
401 PVTVAPRETV KALEQAARRL AKAVGYVGAA TVEYLYSMET
GDYFLELNP
451 RLQVEHPVTE WIAEVNLPAA QVAVGMGIPL WQIPEIRRFY
GMDYGGGYDI
501 WRKTAALATP FNFDEVDSQW PKGHCVAVRI TSEDPDGDFK
PTGGKVKEIS
551 FSKSPNVWAY FSVKSGGGIH EFADSQFGHV FAYGLSRSA
ITNMTLALKE
601 IQIRGEIHSN VDYTVDLLNA SDFRENKIHT GWLDTRIAMR
VQAERPPWYI
651 SVVGGALYKT VTTNAATVSE YVSYLTGQI PPKHISLVNS
TVNLNIEGSK
701 YTIETVRTGH GSYRLRMNDS TVEANVQSLC DGGLLMQLDG
NSHVIYAE
751 AGGTRLQIDG KTCLLQNDHD PSKLLAETPC KLLRFLVADG
AHVDADVPYA
801 EVEVMKMCMP LLSPASGVIIH CMMSEGQALQ AGDLIARLDL
DDPSAVKRAE
851 PFDGIFPQME LPVAVSSQVH KRYAASLNAA RMVLAGYEH
INEVVQDLVC
901 CLDNPELPFL QWDELMSVLA TRLPRNLKSE LEDKYKEYKL
NFYHGKNE
951 PSKLLRDIIE ENLSYGSEKE KATNERLVEP LMNLLKSYEG
GRESHAFVV
1001 KSLFEEYLTV EELFSDGIQS DVIETLRHQH SKDLQKVVDI
VLHQGV
1051 AKLV TALMEK LVYPNPGGYR DLLVRFSSLN HKRYK LALK
ASELLEQTKL
1101 SELRASVARS LSDLGMHKGE MSIKDNMEDL VSAPLPVEDA
LISLFDYS

FIGURE 6B CONTINUED

1151 TVQQKVIETY ISRLYQPHLV KDSIQMKFKE SGAITFWEFY
EGHVDTRNGH
1201 GAIIGGKRWG AMVVLKSLES ASTAIVAALK DSAQFNSSEG
NMMHIALLSA
1251 ENESNISGIS SDDQAQHKME KLSKILKDTS VASDLQAAGL
KVISCIVQRD
1301 EARMPPMRHTF LWLDDKSCYE EEQILRHVEP PLSTLLELDK
LKVKGYNEMK
1351 YTPSRDRQWH IYTLRNTENP KMLHRVFFRT IVRQPNAGNK
FTSAQISDAE
1401 VGCPEESLSF TSNSILRSLM TAIEEELHA IRTGHSHMYL
CILKEQKLLD
1451 LIPFSGSTIV DVGQDEATAC SLLKSMALKI HELVGARMHH
LSVCQWEVKL
1501 KLDCDGPASG TWRVVTTNVT GHTCTIDIYR EVEEIESQKL
VYHSATSSAG
1551 PLHGVALNNP YQPLSVIDLK RCSARNNRTT YCYDFPLAFE
TALQKSWQSN
1601 GSTVSEGNEK SKSYVKATEL VFAEKHGSWG TPIIPMERPA
GLNDIGMVAW
1651 IMEMSTPEFP NGRQIIVVAN DITFRAGSFG PREDAFFETV
TNLACERKLP
1701 LIYLAANSGA RIGIADEVKS CFRVGWSDEG SPERGFQYIY
LTEEDYARIS
1751 SSVIAHKLEL DSGEIRWIID SVVGKEDGLG VENIHGSAAI
ASAYSRAYEE
1801 TFTLTFTVGR TVGIGAYLAR LGIRCIQRLD QPIILTGFSA
LNKLLGREVY
1851 SSHMQLGGPK IMATNGVVHL TVPDDLEGVS NILRWLSYVP
ANIGGPLPIT
1901 KPLDPPDRPV AYIPENTCDP RAAICGVDDS QGKWLGMFED
KDSFVETFEG
1951 WAKTVVTGRA KLGIGIPVGI AVETQTMMQI IPADPGQLDS
HERSVPRAGQ
2001 VWFPDSATKT AQALLDFNRE GLPLFILANW RGFSGGQRDL
FEGILQAGST
2051 IVENLRNLSQ PAFVYIPMAG ELRGGAWVVV DSKINPDRIE
CYAERTAKGN
2101 VLEPQGLIEI KFRSEELQDC MGRLDPELIN LKAKLQDVNH
NGSLPDIEG
2151 IRKSIEARTK QLLPLYTQIA IRFAELHDTL LRMAAKGVIK
KVVDWEESRS
2201 FFYKRLRRRI AEDVLAKEIR QIVGDKFTHQ LAMELIKWEY
LASQATTGST
2251 GWDDDDAFVA WKDSPENYKG HIQKLRAQKV SHSLSDLADS
SSDLQAFSQG
2301 LSTLLDKMDP SQRAKFVQEV KKVLD

FIGURE 7A

ZMU19183 - *ZEA MAYS* PLASTIDAL ACCASE CDNA (SEQ ID NO: 13)

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1 GGTCTTCAAT TGTGCTGTCT GGGCCACGGA ACGACAATGT
CACAGCTTGG ATTAGCCGCA
61 GCTGCCTCAA AGGCCTTGCC ACTACTCCCT AATCGCCAGA
GAAGTTCAGC TGGGACTACA
121 TTCTCATCAT CTTCATTATC GAGGCCCTTA AACAGAAGGA
AAAGCCATAC TCGTTCACTC
181 CGTGATGGCG GAGATGGGGT ATCAGATGCC AAAAAGCACA
GCCAGTCTGT TCGTCAAGGT
241 CTTGCTGGCA TTATCGACCT CCCAAGTGAG GCACCTTCCG
AAGTGGATAT TTCACATGGA
301 TCTGAGGATC CTAGGGGGCC AACAGATTCT TATCAAATGA
ATGGGATTAT CAATGAAACA
361 CATAATGGAA GACATGCCTC AGTGTCCAAG GTTGTGAAT
TTTGTGCGGC ACTAGGTGGC
421 AAAACACCAA TTCACAGTAT ATTAGTGGCC AACAAATGGAA
TGGCAGCAGC AAAATTTATG
481 AGGAGTGTCC GGACATGGGC TAATGATACT TTTGGATCTG
AGAAGGCAAT TCAACTCATA
541 GCTATGGCAA CTCCGGAAGA CATGAGGATA AATGCAGAAC
ACATTAGAAT TGCTGACCAA
601 TTCGTAGAGG TGCCTGGTGG AACAAACAAT AATAACTACG
CCAATGTTCA ACTCATAGTG
661 GGGATGGCAC AAAAAGTAGG TGTTTCTGCT GTTTGGCCTG
GTTGGGGTCA TGCTTCTGAG
721 AATCCTGAAC TGCCAGATGC ATTGACCGCA AAAGGGATCG
TTTTTCTTGG CCCACCTGCA
781 TCATCAATGA ATGCTTTGGG AGATAAGGTC GGCTCAGCTC
TCATTGCTCA AGCAGCCGGG
841 GTCCCAACTC TTGCTTGGAG TGGATCACAT GTTGAAGTTC
CATTAGAGTG CTGCTTAGAC
901 GCGATACCTG AGGAGATGTA TAGAAAAGCT TCGGTTACTA
CCACAGAGGA AGCAGTTGCA
961 AGTTGTCAAG TGGTTGGTTA TCCTGCCATG ATTAAGGCAT
CCTGGGGAGG TGGTGGTAAA
1021 GGAATAAGAA AGGTTTCATAA TGATGATGAG GTTAGAGCGC
TGTTTAAGCA AGTACAAGGT
1081 GAAGTCCCTG GCTCCCAAT ATTTGTCATG AGGCTTGCA
CCCAGAGTCG GCATCTTGAA
1141 GTTCAGTTGC TTTGTGATCA ATATGGTAAT GTAGCAGCAC
TTCACAGTCG TGATTGCAGT
1201 GTGCAACGGC GACACCAGAA GATTATTGAA GAAGGTCCAG
TTACTGTTGC TCCTCGTGAG
1261 ACAGTTAAAG CACTTGAGCA GGCAGCAAGG AGGCTTGCTA
AGGCTGTGGG TTATGTTGGT
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FIGURE 7A CONTINUED

1321 GCTGCTACTG TTGAGTATCT TTACAGCATG GAAACTGGAG
ACTACTATTT TCTGGAACTT
1381 AATCCCCGAC TACAGGTTGA GCATCCAGTC ACTGAGTGGA
TAGCTGAAGT GAATCTGCCT
1441 GCAGCTCAAG TTGCTGTTGG AATGGGCATA CCTCTTTGGC
AGATTCCAGA AATCAGACGT
1501 TTCTATGGAA TGGACTATGG AGGAGGGTAT GACATTTGGA
GGAAAACAGC AGCTCTTGCT
1561 ACACCATTTA ATTTTGATGA AGTAGATTCT CAATGGCCAA
AGGGCCATTG TGTAGCAGTT
1621 AGAATTACTA GTGAGGACCC AGATGATGGT TTCAAACCTA
CTGGTGGGAA AGTGAAGGAG
1681 ATAAGTTTTA AAAGCAAGCC TAATGTTTGG GCCTACTTCT
CAGTAAAGTC TGGTGGAGGC
1741 ATTCATGAAT TTGCTGATTC TCAGTTTGGA CATGCTTTTG
CATATGGACT CTCTAGACCA
1801 GCAGCTATAA CAAACATGTC TCTTGCATTA AAAGAGATTCT
AGATTCTGTT AGAAATTCAT
1861 TCAAATGTTG ATTACACAGT TGACCTCTTA AACGCTTCAG
ACTTCAGAGA AAACAAGATC
1921 CACACTGGTT GGCTGGATAC AAGAATAGCT ATGCGTGTTCT
AAGCTGAGAG GCCCCCATGG
1981 TATATCTCAG TG GTTGGAGG TGCTTTATAT AAAACAGTAA
CCACCAATGC AGCCACTGTT
2041 TCTGAATATG TTAGTTATCT CACCAAGGGC CATATTCCAC
CAAAGCATAT ATCCCTTGTC
2101 AATTCTACAG TTAATTTGAA TATAGAAGGG AGCAAATACA
CAATTGAAAC TGTAAGGACT
2161 GGACATGGTA GCTACAGGTT GAGAATGAAT GATTCAACAG
TTGAAGCGAA TGTACAATCT
2221 TTATGTGATG GTGGCCTCTT AATGCAGTTG GATGGAAACA
GCCATGTAAT TTATGCAGAA
2281 GAAGAAGCTG GTGGTACACG GCTTCAGATT GATGGAAAGA
CATGTTTATT GCAGAATGAC
2341 CATGATCCAT CGAAGTTATT AGCTGAGACA CCCTGCAAAC
TTCTTCGTTT CTTGGTTGCT
2401 GATGGTGCTC ATGTTGATGC GGATGTACCA TACGCGGAAG
TTGAGGTTAT GAAGATGTGC
2461 ATGCCTCTCT TGTCACCTGC TTCTGGTGTC ATTCATTGTA
TGATGTCTGA GGGCCAGGCA
2521 TTGCAGGCTG GTGATCTTAT AGCAAGGTTG GATCTTGATG
ACCCTTCTGC TGTGAAAAGA
2581 GCTGAGCCAT TTGATGGAAT ATTTCCACAA ATGGAGCTCC
CTGTTGCTGT CTCTAGTCAA

FIGURE 7A CONTINUED

2641 GTACACAAAA GATATGCTGC AAGTTTGAAT GCTGCTCGAA
TGGTCCTTGC AGGATATGAG
2701 CACAATATTA ATGAAGTCGT TCAAGATTG GTATGCTGCC
TGGACAACCC TGAGCTTCCT
2761 TTCCTACAGT GGGATGAACT TATGTCTGTT CTAGCAACGA
GGCTTCCAAG AAATCTCAAG
2821 AGTGAGTTAG AGGATAAATA CAAGGAATAC AAGTTGAATT
TTTACCATGG AAAAAACGAG
2881 GACTTTCCAT CCAAGTTGCT AAGAGACATC ATTGAGGAAA
ATCTTTCTTA TGGTTCAGAG
2941 AAGGAAAAGG CTACAAATGA GAGGCTTGTT GAGCCTCTTA
TGAACCTACT GAAGTCATAT
3001 GAGGGTGGGA GAGAGAGCCA TGCACATTTT GTTGTCAAGT
CTCTTTTTCGA GGAGTATCTT
3061 ACAGTGGAAG AACTTTTTAG TGATGGCATT CAGTCTGACG
TGATTGAAAC ATTGCGGCAT
3121 CAGCACAGTA AAGACCTGCA GAAGGTTGTA GACATTGTGT
TGTCTCACCA GGGTGTGAGG
3181 AACAAAGCTA AGCTTGTAAC GGCACCTATG GAAAAGCTGG
TTTATCCAAA TCCTGGTGGT
3241 TACAGGGATC TGTTAGTTCT CTTTTCTTCC CTCAATCATA
AAAGATATTA TAAGTTGGCC
3301 CTAAAGCAA GTGAACTTCT TGAACAAACC AAATAAGTG
AACTCCGTGC AAGCGTTGCA
3361 AGAAGCCTTT CGGATCTGGG GATGCATAAG GGAGAAATGA
GTATTAAGGA TAACATGGAA
3421 GATTTAGTCT CTGCCCCATT ACCTGTTGAA GATGCTCTGA
TTTCTTTGTT TGATTACAGT
3481 GATCGAACTG TTCAGCAGAA AGTGATTGAG ACATACATAT
CACGATTGTA CCAGCCTCAT
3541 CTTGTAAAGG ATAGCATCCA AATGAAATTC AAGGAATCTG
GTGCTATTAC TTTTTGGGAA
3601 TTTTATGAAG GGCATGTTGA TACTAGAAAT GGACATGGGG
CTATTATTGG TGGGAAGCGA
3661 TGGGGTGCCA TGGTCGTTCT CAAATCACTT GAATCTGCGT
CAACAGCCAT TGTGGCTGCA
3721 TTAAAGGATT CGGCACAGTT CAACAGCTCT GAGGGCAACA
TGATGCACAT TGCATTATTG
3781 AGTGCTGAAA ATGAAAGTAA TATAAGTGGA ATAAGCAGTG
ATGATCAAGC TCAACATAAG
3841 ATGGAAAAGC TTAGCAAGAT ACTGAAGGAT ACTAGCGTTG
CAAGTGATCT CCAAGCTGCT
3901 GGTTTGAAGG TTATAAGTTG CATTGTTCAA AGAGATGAAG
CTCGCATGCC AATGCGCCAC

FIGURE 7A CONTINUED

3961 ACATTCCCTCT GGTTGGATGA CAAGAGTTGT TATGAAGAAG
AGCAGATTCT CCGGCATGTG
4021 GAGCCTCCCC TCTCTACACT TCTTGAATTG GATAAGTTGA
AGGTGAAAGG ATACAATGAA
4081 ATGAAGTATA CTCCTTCGCG TGACCGCCAA TGGCATATCT
ACACACTAAG AAATACTGAA
4141 AACCCCCAAA TGTTGCATAG GGTGTTTTTC CGAACTATTG
TCAGGCAACC CAATGCAGGC
4201 AACAAAGTTTA GATCGGCTCA GATCAGCGAC GCTGAGGTAG
GATGTCCCGA AGAATCTCTT
4261 TCATTTACAT CAAATAGCAT CTTAAGATCA TTGATGACTG
CTATTGAAGA ATTAGAGCTT
4321 CATGCAATTA GGACAGGTCA TTCTCACATG TATTTGTGCA
TACTGAAAGA GCAAAAGCTT
4381 CTTGACCTCA TTCCATTTTC AGGGAGTACA ATTGTTGATG
TTGGCCAAGA TGAAGCTACC
4441 GCTTGTTTAC TTTTAAATC AATGGCTTTG AAGATACATG
AGCTTGTTGG TGCAAGGATG
4501 CATCATCTGT CTGTATGCCA GTGGGAGGTG AAACCTCAAGT
TGGACTGTGA TGGCCCTGCA
4561 AGTGGTACCT GGAGAGTTGT AACTACAAAT GTTACTGGTC
ACACCTGCAC CATTGATATA
4621 TACCGAGAAG TGGAGGAAAT AGAATCACAG AAGTTAGTGT
ACCATTCAGC CAGTTCGTCA
4681 GCTGGACCAT TGCATGGTGT TGCACTGAAT AATCCATATC
AACCTTTGAG TGTGATTGAT
4741 CTAAAGCGCT GCTCTGCTAG GAACAACAGA ACAACATATT
GCTATGATTT TCCGCTGGCC
4801 TTTGAAACTG CACTGCAGAA GTCATGGCAG TCCAATGGCT
CTACTGTTTC TGAAGGCAAT
4861 GAAAATAGTA AATCCTACGT GAAGGCAACT GAGCTAGTGT
TTGCTGAAAA ACATGGGTCC
4921 TGGGGCACTC CTATAATTCC GATGGAACGC CCTGCTGGGC
TCAACGACAT TGGTATGGTC
4981 GCTTGATCA TGGAGATGTC AACACCTGAA TTTCCCAATG
GCAGGCAGAT TATTGTTGTA
5041 GCAAATGATA TCACTTTCAG AGCTGGATCA TTTGGCCCAA
GGGAAGATGC ATTTTTTGAA
5101 ACTGTCACTA ACCTGGCTTG CGAAAGGAAA CTTCTCTTA
TATACTTGGC AGCAAACCTT
5161 GGTGCTAGGA TTGGCATAGC TGATGAAGTA AAATCTTGCT
TCCGTGTTGG ATGGTCTGAC
5221 GAAGGCAGTC CTGAACGAGG GTTTCAGTAC ATCTATCTGA
CTGAAGAAGA CTATGCTCGC

FIGURE 7A CONTINUED

5281 ATTAGCTCTT CTGTTATAGC ACATAAGCTG GAGCTAGATA
GTGGTGAAAT TAGGTGGATT
5341 ATTGACTCTG TTGTGGGCAA GGAGGATGGG CTTGGTGTCTG
AGAACATACA TGGAAAGTGCT
5401 GCTATTGCCA GTGCTTATTC TAGGGCATAT GAGGAGACAT
TTACACTTAC ATTTGTGACT
5461 GGGCGGACTG TAGGAATAGG AGCTTATCTT GCTCGACTTG
GTATACGGTG CATAACAGCGT
5521 CTTGACCAGC CTATTATTTT AACAGGGTTT TCTGCCCTGA
ACAAGCTCCT TGGGCGGGAA
5581 GTGTACAGCT CCCACATGCA GCTTGGTGGT CCTAAGATCA
TGGCGACCAA TGGTGTGTCT
5641 CACCTCACTG TTCCAGATGT CCTTGAAGGT GTTTCCAATA
TATTGAGGTG GCTCAGCTAT
5701 GTTCCTGCAA ACATTGGTGG ACCTCTTCCT ATTACCAAAC
CTCTGGACCC TCCAGACAGA
5761 CCTGTTGCTT ACATCCCTGA GAACACATGC GATCCACGTG
CAGCTATCTG TGGTGTAGAT
5821 GACAGCCAAG GGAAATGGTT GGGTGGTATG TTTGACAAAG
ACAGCTTTGT GGAGACATTT
5881 GAAGGATGGG CAAAACAGT GGTTACTGGC AGAGCAAAGC
TTGGAGGAAT TCCTGTGGGC
5941 GTCATAGCTG TGGAGACACA GACCATGATG CAGATCATCC
CTGCTGATCC AGGTCAGCTT
6001 GATTCCCATG AGCGATCTGT CCCTCGTGCT GGACAAGTGT
GGTCCCAGA TTCTGCAACC
6061 AAGACCGCTC AGGCATTATT AGACTTCAAC CGTGAAGGAT
TGCTCTGTGTT CATCCTGGCT
6121 AATTGGAGAG GCTTCTCTGG TGGACAAAGA GATCTCTTTG
AAGGAATTCT TCAGGCTGGG
6181 TCAACAATTG TCGAGAACCT TAGGACATAT AATCAGCCTG
CTTTTGTGTA CATTCCCTATG
6241 GCTGGAGAGC TTCGTGGAGG AGCTTGGGTT GTGGTCGATA
GCAAAATAAA TCCAGACCGC
6301 ATTGAGTGTT ATGCTGAAAG GACTGCCAAA GGTAATGTTC
TCGAACCTCA AGGGTTAATT
6361 GAAATCAAGT TCAGGTCAGA GGAACCCAA GACTGTATGG
GTAGGCTTGA CCCAGAGTTG
6421 ATAAATCTGA AAGCAAAACT CCAAGATGTA AATCATGGAA
ATGGAAGTCT ACCAGACATA
6481 GAAGGGATTC GGAAGAGTAT AGAAGCACGT ACGAAACAGT
TGCTGCCTTT ATATACCCAG
6541 ATTGCAATAC GGTGTGCTGA ATTGCATGAT ACTTCCCTAA
GAATGGCAGC TAAAGGTGTG

FIGURE 7A CONTINUED

6601 ATTAAGAAAAG TTGTAGACTG GGAAGAATCA CGCTCGTTCT
TCTATAAAAAG GCTACGGAGG
6661 AGGATCGCAG AAGATGTTCT TGCAAAAGAA ATAAGGCAGA
TAGTCGGTGA TAAATTTACG
6721 CACCAATTAG CAATGGAGCT CATCAAGGAA TGGTACCTTG
CTTCTCAGGC CACAACAGGA
6781 AGCACTGGAT GGGATGACGA TGATGCTTTT GTTGCCTGGA
AGGACAGTCC TGAAAACTAC
6841 AAGGGGCATA TCCAAAAGCT TAGGGCTCAA AAAGTGTCTC
ATTCGCTCTC TGATCTTGCT
6901 GACTCCAGTT CAGATCTGCA AGCATTCTCG CAGGGTCTTT
CTACGCTATT AGATAAGATG
6961 GATCCCTCTC AGAGAGCGAA GTTTGTTTCA GAAGTCAAGA
AGGTCCTTGA TTGATGATAC
7021 CAACACATCC AACACAATGT GTGCATGTCA CATCTTTTTG
TTCTAGTACA TACATAGAAG
7081 GATATTGCTT GGTCTTGATT GATCATGTCT GATTTAAGTC
GACTATTATT TCTTGGAATT
7141 TTCTTTTGGA CCTGGTGCTA TGGTTGATGG ATGTATATTG
GATATGTGCG TTCTGCCAGG
7201 TGTAAGCACA AAGGTTTAGA CARAMMRARA RCAAGAGCGA
GTGAACCTGT TCTGGTTTTG
7261 CAGTGGTTCA GTAAGGCAGA AAGTTGTTAA ACCGTAGTTC
TGAGATGTAT TACCAGTGNC
7321 GCCATGCTGT ACTTTTAGGG TGTATAATGC GGATACAAAT
AAACAATTTA GCGGTTTCATT
7381 AAAGTTTGAA CTCAAATAAC ATGTTCTTTG TAAGCATATG
TACCGTACCT CTACGTGAAA
7441 TAAAGTTGTT GAATTAGCAT TCGA

FIGURE 7B
ZMU19183 – ZEA MAYS PLASTIDAL ACCASE TRANSLATED PROTEIN (SEQ
ID NO: 14)

1 MSQLGLAAAA SKALPLLPNR QRSSAGTTFS SSSLSRPLNR
RKSHTRSLRD
51 GGDGVSDAKK HSQSVRQGLA GIIDLPESEAP SEVDISHGSE
DPRGPTDSYQ
101 MNGIINETHN GRHASVSKVV EFCAALGGKT PIHSILVANN
GMAAAKFMRS
151 VRTWANDTFG SEKAIQLIAM ATPEDMRINA EHIRIADQFV
EVPGGTNNNN
201 YANVQLIVGM AQKLGVS AVW PGWGHASENP ELPDALTAKG
IVFLGPPASS
251 MNALGDKVGS ALIAQAAGVP TLAWSGSHVE VPLECCLDAI
PEEMYRKACV
301 TTTEEAVASC QVVGYPAMIK ASWGGGGKGI RKVHNDDEVR
ALFKQVQGEV
351 PGSPIFVMRL ASQSRHLEVQ LLC DQYGNVA ALHSRDCSVQ
RRHQKIIIEG
401 PVTVAPRETV KALEQAARRL AKAVGYVGAA TVEYLYSMET
GDYYFLELNP
451 RLQVEHPVTE WIAEVNLPAA QVAVGMGIPL WQIPEIRRFY
GMDYGGGYDI
501 WRKTAALATP FNFDEVDSQW PKGHCVAVRI TSEDPDDGFK
PTGGKVKEIS
551 FKSKPNVWAY FSVKSGGGIH EFADSQFGHA FAYGLSRPAA
ITNMSLALKE
601 IQIRGEIHSN VDYTVDLLNA SDFRENKIHT GWLDTRIAMR
VQAERPPWYI
651 SVVGGALYKT VTTNAATVSE YVSYLTKGHI PPKHISLVNS
TVNLNIEGSK
701 YTIETVRTGH GSYRLRMNDS TVEANVQSLC DGGLLMQLDG
NSHVIYAEED
751 AGGTRLQIDG KTCLLQNDHD PSKLLAETPC KLLRFLVADG
AHVDADVPYA
801 EVEVMKMCMP LLSPASGVIIH CMMSEGQALQ AGDLIARLDL
DDPSAVKRAE
851 PFDGIFPQME LPVAVSSQVH KRYAASLNAA RMVLAGYEHN
INEVVQDLVC
901 CLDNPELPFL QWDELMSVLA TRLPRNLKSE LEDKYKEYKL
NFYHGKNEDE
951 PSKLLRDIIE ENLSYGSEKE KATNERLVEP LMNLLKSYEG
GRESHAFVV
1001 KSLFEEYLTV EELFSDGIQS DVIETLRHQH SKDLQKVVDI
VLSHQGVNRK
1051 AKLVTALMEK LVYPNPGGYR DLLVRFSSLN HKRYYKLALK
ASELLEQTKL
1101 SELRASVARS LSDLGMHKGE MSIKDNMEDL VSAPLPVEDA
LISLFDYSR

FIGURE 7B CONTINUED

1151 TVQQKVIETY ISRLYQPHLV KDSIQMKFKE SGAITFWEFY
EGHVDTRNGH
1201 GAIIGGKRWG AMVVLKSLES ASTAIVAALK DSAQFNSSEG
NMMHIALLSA
1251 ENESNISGIS SDDQAQHKME KLSKILKDTS VASDLQAAGL
KVISCIVQRD
1301 EARMPPMRHTF LWLDDKSCYE EEQILRHVEP PLSTLLELDK
LKVKGYNEMK
1351 YTPSRDRQWH IYTLRNTENP KMLHRVFFRT IVRQPNAGNK
FRSAQISDAE
1401 VGCPEESLSF TSNSILRSLM TAIEEELHA IRTGHSHMYL
CILKEQKLLD
1451 LIPFSGSTIV DVGQDEATAC SLLKSMALKI HELVGARMHH
LSVCQWEVKL
1501 KLDCDGPASG TWRVVTTNVT GHTCTIDIYR EVEEIESQKL
VYHSASSSAG
1551 PLHGVALNNP YQPLSVIDLK RCSARNNRTT YCYDFPLAFE
TALQKSWQSN
1601 GSTVSEGNEK SKSYVKATEL VFAEKHGSWG TPIIPMERPA
GLNDIGMVAW
1651 IMEMSTPEFP NGRQIIVVAN DITFRAGSFG PREDAFFETV
TNLACERKLP
1701 LIYLAANSAG RIGIADEVKS CFRVGWSDEG SPERGFQYIY
LTEEDYARIS
1751 SSVIAHKLEL DSGEIRWIID SVVGKEDGLG VENIHGSAAI
ASAYSRAYEE
1801 TFTLTFTVGR TVGIGAYLAR LGIRCIQRLD QPIILTGFSA
LNKLLGREVY
1851 SSHMQLGGPK IMATNGVVHL TVPDVLEGVS NILRWLSYVP
ANIGGPLPIT
1901 KPLDPPDRPV AYIPENTCDP RAAICGVDDS QGKWLGMFED
KDSFVETFEG
1951 WAKTVVTGRA KLGIGIPVGI AVETQTMMQI IPADPGQLDS
HERSVPRAGQ
2001 VWFPDSATKT AQALLDFNRE GLPLFILANW RGFSGGQRDL
FEGILQAGST
2051 IVENLRITYN PAFVYIPMAG ELRGGAWVVV DSKINPDRIE
CYAERTAKGN
2101 VLEPQGLIEI KFRSEELQDC MGRLDPELIN LKAKLQDVNH
NGSLPDIEG
2151 IRKSIEARTK QLLPLYTQIA IRFAELHDTL LRMAAKGVIK
KVVDWEESRS
2201 FFYKRLRRRI AEDVLAKEIR QIVGDKFTHQ LAMELIKWEY
LASQATTGST
2251 GWDDDDAFVA WKDSPENYKG HIQKLRAQKV SHSLSDLADS
SSDLQAFSQG
2301 LSTLLDKMDP SQRAKFVQEV KKVLD

FIGURE 8A
AY219174 - *SETARIA ITALICA* PLASTIDAL ACCASE CDNA - FOXTAIL
MILLET (SEQ ID NO: 15)

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1 TGTGCTGTCT GGGCTACGGA ACGACAATGT CGCAACTTGG
ATTAGCTGCA GCTGCCTCAA
61 AGGCGCTGCC ACTACTTCCT AATCGCCATA GAACTTCAGC
TGGA ACTACA TTCCCATCAC
121 CTGTATCATC GCGGCCCTCA AACCGAAGGA AAAGCCGCAC
TCGTTCACTT CGTGATGGAG
181 GAGATGGGGT ATCAGATGCC AAAAAGCACA ACCAGTCTGT
CCGTCAAGGT CTTGCTGGCA
241 TCATCGACCT CCCAAATGAG GCAACATCGG AAGTGGATAT
TTCTCATGGA TCCGAGGATC
301 CCAGGGGGCC AACCGATTCA TATCAAATGA ATGGGATTGT
AAGTGAAGCA CATAATGGCA
361 GACATGCCTC AGTGTCCAAG GTTGTGAAT TTTGTGCGGC
GCTAGGTGGC AAAACACCAA
421 TTCACAGTAT ACTAGTGGCC AACAATGGAA TGGCAGCAGC
AAAGTTCATG AGGAGTGTCC
481 GGACATGGGC TAATGATACT TTTGGATCGG AGAAGGCGAT
TCAGCTCATA GCTATGGCAA
541 CTCCAGAAGA CATGAGGATA AATGCAGAAC ACATTAGAAT
TGCTGATCAA TTTGTGGAGG
601 TGCCTGGTGG AACAAACAAT AACAACTATG CAAATGTTCA
ACTCATAGTG GAGGTAGCAG
661 AAAGAATAGG TGTTTCTGCT GTTTGGCCTG GTTGGGGTCA
TGCTTCTGAG AATCCTGAAC
721 TTCCAGATGC ATTGACCGCA AAAGGAGTTG TTTTCCTTGG
GCCACCTGCG GCATCAATGA
781 ATGCATTGGG AGATAAGGTC GGTTCAAGCTC TCATTGCTCA
AGCAGCTGGG GTCCCGACCC
841 TTTCGTGGAG TGGATCACAT GTTGAAGTTC CATTAGAGTG
CTGCTTAGAT GCGATACCTG
901 AGGAAATGTA TAGAAAAGCT TGTGTTACTA CCACAGAAGA
AGCTGTTGCG AGTTGTCAGG
961 TGGTTGGTTA TCCTGCCATG ATTAAGGCAT CCTGGGGAGG
TGGTGGTAAA GGAATAAGAA
1021 AGGTTTCATAA TGACGATGAG GTTAGAGCAC TGTTTAAGCA
AGTACAAGGT GAAGTCCCTG
1081 GCTCCCCAAT ATTTATCATG AGGCTTGCAT CCCAGAGTCG
TCATCTTGAA GTTCAGTTGC
1141 TTTGTGATCA ATATGGCAAT GTGGCAGCAC TTCACAGTCG
TGATTGCAGT GTGCAACGGC
1201 GACACCAAAA GATTATTGAG GAAGGCCAG TTACTGTTGC
TCCTCGTGAG ACAGTTAAAG
```

FIGURE 8A CONTINUED

1261 CGCTTGAGCA GGCAGCAAGG AGGCTTGCTA AGGCTGTGGG
TTATGTTGGT GCTGCTACTG
1321 TTGAATACCT TTACAGCATG GAGACTGGGG AATACTATTT
TCTGGAGCTT AATCCCAGAT
1381 TACAGGTCGA GCATCCAGTC ACTGAGTGGA TTGCTGAAGT
AAATCTTCCT GCAGCTCAAG
1441 TTGCAGTTGG AATGGGCATA CCTCTTTGGC AGATTCCAGA
AATCAGACGT TTCGATGGAA
1501 TGGACTATGG AGGAGGATAT GACATTTGGA GGAAAAACAGC
AGCTCTTGCC ACACCATTTA
1561 ATTTTGATGA AGTAGATTCT CAATGGCCAA AGGGCCATTG
TGTAGCAGTT AGAATTACTA
1621 GCGAGGATCC AGATGATGGT TTCAAACCTA CTGGTGGGAA
AGTGAAGGAG ATAAGTTTTA
1681 AAAGCAAGCC TAATGTTTGG GCCTACTTCT CAGTAAAGTC
TGGTGGAGGC ATTCATGAAT
1741 TTGTTGATTC TCAGTTTGGG CATGTTTTTG CATATGGGCT
CTCTAGATCA GCAGCAATAA
1801 CGAACATGGC TCTTGCATTA AAAGAGATTC AAATTCGTGG
AGAAATTCAT TCAAATGTTG
1861 ATTACACAGT TGATCTCTTA AATGCTTCAG ACTTCAGAGA
AAATAAGATT CATACTGGCT
1921 GGCTTGATAC CAGAATAGCT ATGCGTGTTT AAGCTGAGAG
GCCCCCATGG TATATTTTCA
1981 TGGTTGGAGG AGCTCTATAT AAAACAGTAA CTGCCAATGC
AGCCACTGTT TCTGATTATG
2041 TCAGTTATCT CACCAAGGGC CAGATTCCAC CAAAGCATAT
ATCCCTTGTC AGTTCAACAG
2101 TTAATCTGAA TATCGAAGGG AGCAAATACA CAGTTGAAAC
TGTAAGGACT GGACATGGTA
2161 GCTACAGATT ACGAATGAAT GATTCAGCAA TTGAAGCGAA
TGTACAATCC TTATGTGATG
2221 GAGGCCTCTT AATGCAGTTG GATGGAAATA GCCATGTAAT
TTACGCGGAA GAAGAAGCTG
2281 GTGGTACACG ACTTCTGATT GATGGAAAGA CATGCTTGTT
ACAGAATGAT CATGATCCAT
2341 CAAAGTTATT AGCTGAGACA CCCTGCAAAC TTCTTCGGTT
CTTGTTGCT GATGGTGCCC
2401 ATGTTGATGC TGATGTACCA TATGCGGAAG TTGAGGTTAT
GAAAATGTGC ATGCCTCTCT
2461 TGTCGCCTGC TTCTGGTGTC ATTCATGTTA TGATGTCTGA
GGGCCAGGCA TTGCAGGCTG
2521 GTGATCTTAT AGCAAGGCTG GATCTTGATG ACCCTTCTGC
TGTGAAAAGA GCTGAACCAT

FIGURE 8A CONTINUED

2581 TTCATGGAAT ATTTCCACAA ATGGACCTTC CTGTTGCTGC
CTCTAGCCAA GTACACAAAA
2641 GATATGCTGC AAGTTGGAAT GCTGCTCGAA TGGTCCTTGC
AGGATACGAG CATAATATCA
2701 ATGAAGTTGT ACAAGATTTG GTATGCTGCC TGGATGATCC
CGAGCTTCCC TTCCTACAGT
2761 GGGATGAACT TATGTCAGTT CTAGCAACTA GGCTTCCAAG
AAATCTTAAG AGTGAGTTAG
2821 AGGATAAATA CATGGAATAC AAGTTGAACT TTTACCATGG
GAAAAACAAG GACTTCCCGT
2881 CCAAGCTGCT GAGAGACATC ATTGAGGCAA ATCTTGCATA
TGGTTCAGAG AAGGAAAAAG
2941 CTACGAATGA GAGGCTTATT GAGCCTCTTA TGAGCCTACT
TAAGTCATAT GAGGGTGGGA
3001 GAGAAAGCCA TGCTCATTTT GTTGTCAAGT CCCTTTTCAA
GGAGTACCTT GCTGTGGAAG
3061 AACTTTTCAG TGATGGGATT CAGTCTGATG TGATTGAAAC
CCTGCGTCAT CAGCACAGTA
3121 AAGACTTGCA GAAGGTTGTA GACATTGTGT TGTCTCACCA
GGGTGTGAGG AACAAAGCTA
3181 AGCTTGTAAC AGCACTTATG GAAAAGCTGG TTTATCCAAA
TCCTGCTGCT TACAGGGATC
3241 TGTTGGTTCG CTTTTCTTCA CTCAATCATA AAAGATATTA
TAAGTTGGCC CTAAAGCAA
3301 GCGAACTTCT TGAACAAACT AAATAAGTG AACTCCGTGC
AAGCATCGCA AGAAGCCTTT
3361 CTGATCTGGG GATGCATAAG GGAGAAATGA CTATTGAAGA
TAGCATGGAA GATTTAGTCT
3421 CTGCCCCATT ACCTGTCGAA GATGCACTTA TTTCTTTGTT
TGATTACAGT GATCCAACCTG
3481 TTCAGCAGAA AGTGATCGAG ACATACATAT CTCGATTGTA
TCAGCCTCTT CTTGTGAAAG
3541 ATAGCATCCA AGTGAAATTT AAGGAATCTG GTGCCTTTGC
TTTATGGGAA TTTTCTGAAG
3601 GGCATGTTGA TACTAAAAAT GGACAAGGGA CCGTTCTTGG
TCGAACAAGA TGGGGTGCCA
3661 TGGTAGCTGT CAAATCAGTT GAATCTGCAC GAACAGCCAT
TGTAGCTGCA TTAAAGGATT
3721 CGGCACAGCA TGCCAGCTCT GAGGGCAACA TGATGCACAT
TGCCTTATTG AGTGCTGAAA
3781 ATGAAAATAA TATCAGTGAT GATCAAGCTC AACATAGGAT
GGAAAACTT AACAAGATAC
3841 TCAAGGATAC TAGTGTCGCA AATGATCTTC GAGCTGCTGG
TTTGAAGGTT ATAAGTTGCA

FIGURE 8A CONTINUED

3901 TTGTTCAAAG AGATGAAGCA CGCATGCCAA TCGCCACAC
ATTACTCTGG TCAGATGAAA
3961 AGAGTTGTTA TGAGGAAGAG CAGATTCTTC GGCATGTGGA
GCCTCCCCTC TCCATGCTTC
4021 TTGAAATGGA TAAGTTGAAA GTGAAAGGAT ACAATGAAAT
GAAGTATACT CCATCACGTG
4081 ATCGTCAATG GCATATCTAC AACTAAGAA ATACTGAAAA
CCCCAAAATG TTGCATAGGG
4141 TATTTTTCG AACTATTGTC AGGCAACCCA ATGCAGGCCAA
CAAGTTTATA TCAGCCCCAA
4201 TTGGCGACAC TGAAGTAGGA GGTCTGAGG AATCTTTGTC
ATTTACATCT AATAGCATTT
4261 TAAGAGCCTT GATGACTGCT ATTGAAGAAT TAGAGCTTCA
TGCAATTAGG ACTGATCATT
4321 CTCACATGTA TTTGTGCATA TTGAAAGAAC AAAAGCTTCT
TGATCTCATT CCGTTTTTCAG
4381 GGAGCACAAT CGTCGATGTT GTCCAAGACG AAGCTACTGC
TTGTTCACTT TAAAAATCAA
4441 TGGCTTTGAA GATACACGAA CTTGTTGGTG CACAGATGCA
TCATCTTTCT GTATGCCAGT
4501 GGGAGGTGAA ACTCAAGTTG TACTGCGATG GGCCTGCCAG
TGGCACCTGG AGAGTTGTAA
4561 CTACAAATGT TACTAGTCAC ACTTGACCCG TTGATATCTA
CCGGGAAGTG GAAGATACTG
4621 AATCGCAGAA GTTAGTATAC CATTCAGCTT CTCCGTCAGC
TAGTCCTTTG CATGGTGTGG
4681 CCCTGGATAA TCCGTATCAA CCTTTGAGTG TCATTGATCT
AAAACACTGC TCTGCTAGGA
4741 ACAACAGAAC TACATATTGC TATGATTTTC CACTGGCATT
TGAAACTGCC CTGCAGAAGT
4801 CATGGCAGTC CAATGGCTCC AGTGTTTCTG AAGGCAGTGA
AAATAGTAGG TCTTATGTGA
4861 AAGCAACAGA GCTGGTGTTT GCTGAAAAAC ATGGGTCCTG
GGGCACTCCT ATAATTTCCA
4921 TGGAGCGTCC CGCTGGGCTC AATGACATTG GCATGGTAGC
TTGGATCTTA GAGATGTCCA
4981 CTCCTGAATT TCCCAATGGC AGGCAGATTA TTGTCATAGC
AAATGATATT ACTTTCAGAG
5041 CTGGATCATT TGGCCCAAGG GAAGATGCGT TTTTGAAGC
TGTCACGAAC CTGGCCTGCG
5101 AGAGGAAGCT TCCTCTTATA TACTTGGCAG CAAACTCCGG
TGCTAGGATT GGCATAGCCG
5161 ATGAAGTGAA ATCTTGCTTC CGTGTTGGGT GGTCCGATGA
AGGCAGCCCT GAACGGGGTT

FIGURE 8A CONTINUED

5221 TTCAGTACAT TTATCTGACT GACGAAGACT ATGCCCCGTAT
TAGCTTGTCT GTTATAGCAC
5281 ACAAGCTGCA GCTGGATAAT GGTGAAATTA GGTGGATTAT
TGA CTCTGTT GTGGGCAAGG
5341 AGGATGGGCT TGGTGTGAG AATATACATG GAAGTGCTGC
TATTGCCAGT GCTTATTCTA
5401 GGGCATATGA GGAGACATTT ACACTTACAT TTGTGACTGG
GCGGACTGTT GGAATAGGAG
5461 CATATCTTGC TCGGCTCGGT ATACGGTGCA TACAGCGTCT
TGACCAGCCT ATTATTTTAA
5521 CTGGGTTTTTC TGCCCTGAAC AAGCTTCTTG GGCGGGAAGT
GTACAGCTCC CACATGCAGT
5581 TGGGTGGTCC TAAGATCATG GCGACCAATG GTGTTGTCCA
CTTGACTGTT TCAGATGACC
5641 TTGAAGGTGT TTCCAATATA TTGAGGTGGC TCAGCTATGT
TCCTGCCAAC ATTGGTGGAC
5701 CTCTTCCTAT TACAAAACCT TTGGACCCAC CAGACAGACC
TGTTGCATAC ATCCCTGAGA
5761 ACACATGTGA TCCGCGCGCA GCCATTCGTG GTGTAGATGA
CAGCCAAGGG AAATGGTTGG
5821 GTGGTATGTT TGACAAAGAC AGCTTTGTCTG AGACATTTGA
AGGATGGGCG AAAACAGTGG
5881 TTACGGGCAG AGCAAAGCTT GGAGGAATTC CTGTTGGCGT
CATAGCTGTG GAGACACAAA
5941 CCATGATGCA GCTTATCCCT GCTGATCCAG GCCAGCTTGA
TTCCCATGAG CGATCTGTTC
6001 CTCGGGCTGG ACAAGTGTGG TTCCCAGATT CTGCAACCAA
GACAGCTCAG GCATTGTTGG
6061 ACTTCAACCG TGAAGGATTG CCGCTGTTCA TCCTTGCTAA
CTGGAGAGGA TTCTCTGGTG
6121 GACAAAGAGA TCTGTTTGAA GGAATTCTTC AGGCTGGGTC
AACAATTGTT GAGAACCTTA
6181 GGACATACAA TCAGCCTGCT TTTGTCTACA TTCCTATGGC
TGGAGAGCTG CGTGGAGGAG
6241 CTTGGGTTGT GGTGATAGC AAAATAAATC CAGACCGAAT
TGAGTGTTAT GCTGAGAGGA
6301 CTGCTAAAGG CAATGTTCTG GAACCTCAAG GGTAAATTGA
AATCAAATTC AGATCAGAGG
6361 AGCTCCAAGA CTGTATGGGT AGGCTTGACC CAGGGTTGAT
AAATCTGAAA GCAAACTCC
6421 AAGGTGCAAA GCTTGAAAT GGAAGCCTAA CAGATGTAGA
ATCCCTTCAG AAGAGTATAG
6481 ATGCTCGTAC GAAACAGTTG TTGCCTTTAT ACACCCAGAT
TGCAATACGG TTTGCTGAAT

FIGURE 8A CONTINUED

6541 TGCATGATAC TTCCCTCAGA ATGGCAGCTA AAGGTGTGAT
TAAGAAAGTT GTAGATTGGG
6601 AAGAATCACG TTCTTTCTTC TACAGAAGGC TACGGAGGAG
GATCTCTGAA GATGTTCTTG
6661 CAAAAGAAAT AAGAGGAATA GCTGGTGACC ACTTCACTCA
CCAATCAGCA GTTGAGCTGA
6721 TCAAGGAATG GTACTTGGCT TCTCAAGCCA CAACAGGAAG
CACTGAATGG GATGATGATG
6781 ATGCTTTTGT TGCCTGGAAG GAGAATCCTG AAAACTATAA
GGGATATATC CAAGAGTTAA
6841 GGGCTCAAAA GGTGTCTCAG TCGCTCTCCG ATCTTGCAGA
CTCCAGTTCA GATCTAGAAG
6901 CATTCTCACA GGGTCTTTCC ACATTATTAG ATAAGATGGA
TCCCTCTCAG AGAGCCAAGT
6961 TCATTTCAGGA AGTCAAGAAG GTCCTGGGTT GATGAATACC
AACACATTCA ACACAATGTG
7021 TATGCTACAT GTTTTTGTTC AAGTACATAC ATAGAAGGAT
ATTGATCATA TCTGATCTGA
7081 ATCGACCATG ATTTGTTAAA AGTTCTGTTG GACCTAATTC
TGTGGTTGGT ATCAGCACAA
7141 AGCTTGGGGG AGCTGAGTGA CAGACAGTTA GCAAGGGCAC
AAGTGAATCT GTGTTCTGGT
7201 TTTGCAGGGG TCCAGTAAGG CACAAAGTTG TTTGCTATA
GTTATGTGAT GTAACCAGCG
7261 GTTCAATTCT G

FIGURE 8B
AY219174 – *SETARIA ITALICA* PLASTIDAL ACCASE TRANSLATED
PROTEIN (FOXTAIL MILLET) (SEQ ID NO:16)

1 MSQLGLAAAA SKALPLLPNR HRTSAGTTFP SPVSSRPSNR
RKSRTSLRD
51 GGDGVSDAKK HNQSVRQGLA GIIDL PNEAT SEVDISHGSE
DPRGPTDSYQ
101 MNGIVSEAHN GRHASVSKVV EFCAALGGKT PIHSILVANN
GMAAAKFMRS
151 VRTWANDTFG SEKAIQLIAM ATPEDMRINA EHIRIADQFV
EVPGGTNNNN
201 YANVQLIVEV AERIGVSAVW PGWGHASENP ELPDALTAKG
VVFLGPPAAS
251 MNALGDKVGS ALIAQAAGVP TLSWSGSHVE VPLECCLDAI
PEEMYRKACV
301 TTTEEAVASC QVVGYPAMIK ASWGGGGKGI RKVHNDDEVR
ALFKQVQGEV
351 PGSPIFIMRL ASQSRHLEVQ LLC DQYGNVA ALHSRDCSVQ
RRHQKIIIEG
401 PVTVAPRETV KALEQAARRL AKAVGYVGAA TVEYLYSMET
GEYYFLELNP
451 RLQVEHPVTE WIAEVNLPAA QVAVGMGIPL WQIPEIRRFD
GMDYGGGYDI
501 WRKTAALATP FNFDEVDSQW PKGHCVAVRI TSED PDDGFK
PTGGKVKEIS
551 FSKSPNVWAY FSVKSGGGIH EFVDSQFGHV FAYGLSRSA
ITNMALALKE
601 IQIRGEIHSN VDYTVDLLNA SDFRENKIHT GWLDTRIAMR
VQAERPPWYI
651 SVVGGALYKT VTANAATVSD YVSYLTGQI PPKHISLVSS
TVNLNIEGSK
701 YTVETVRTGH GSYRLRMNDS AIEANVQSLC DGGLLMQLDG
NSHVIYAE
751 AGGTRLLIDG KTCLLQNDHD PSKLLAETPC KLLRFLVADG
AHVDADVPYA
801 EVEVMKMCMP LLSPASGVIIH VMMSEGQALQ AGDLIARLDL
DDPSAVKRAE
851 PFHGIFPQMD LPVAASSQVH KRYAASWNAA RMVLAGYEHN
INEVVQDLVC
901 CLDDPELPFL QWDELMSVLA TRLPRNLKSE LEDKYMAYKL
NFYHGKKNKDF
951 PSKLLRDIIE ANLAYGSEKE KATNERLIEP LMSLLKSYEG
GRESHAFVV
1001 KSLFKEYLAV EELFSDGIQS DVIETLRHQH SKDLQKVVDI
VLSHQGVNRK
1051 AKLVTALMEK LVYPNPAAYR DLLVRFSSLN HKRYYKLALK
ASELLEQTKL
1101 SELRASIARS LSDLGMHKGE MTIEDSMEDL VSAPLPVEDA
LISLFDYSDP

FIGURE 8B CONTINUED

1151 TVQQKVIETY ISRLYQPLLK KDSIQVKFKE SGAFALWEFS
EGHVDTKNGQ
1201 GTVLGRTRWG AMVAVKSVES ARTAIVAALK DSAQHASSEG
NMMHIALLSA
1251 ENENNISDDQ AQHRMEKLNK ILKDTSVAND LRAAGLKVIS
CIVQRDEARM
1301 PMRHTLLWSD EKSCYEEEQI LRHVEPPLSM LLEMDKLKVK
GYNEMKYTPS
1351 RDRQWHIYTL RNTENPKMLH RVFFRTIVRQ PNAGNKFISA
QIGDTEVGGP
1401 EESLSFTSNS ILRALMTAIE ELELHAIRTD HSHMYLCILK
EQKLLDLIPF
1451 SGSTIVDVVQ DEATACSLK SMALKIHELK GAQMHHLSVC
QWEVKLKLYC
1501 DGPASGTWRV VTTNVTSTHC TVDIYREVED TESQKLIVHS
ASPSASPLHG
1551 VALDNPYQPL SVIDLKHCSA RNNRTTYCYD FPLAFETALQ
KSWQSNSSV
1601 SEGSENSRSY VKATELVFAE KHGSWGTPII SMERPAGLND
IGMVAWILEM
1651 STPEFPNGRQ IIVIANDITF RAGSFGPRED AFFEAVTNLA
CERKLPLIYL
1701 AANSGARIGI ADEVKSCFRV GWSDEGSPER GFQYIYLTDE
DYARISLSVI
1751 AHKLQLDNKE IRWIIDSVVG KEDGLGVENI HGSAAIASAY
SRAYEETFTL
1801 TFFTGRTVGI GAYLARLGIR CIQRLDQPII LTGFSALNKL
LGREYSSHM
1851 QLGGPKIMAT NGVVHLTVSD DLEGVSNILR WLSYVPANIG
GPLPITKPLD
1901 PPDRPVAYIP ENTCDPRAAI RGVDDSQGW LGGMFDKDSF
VETFEWAKT
1951 VVTGRAKLGG IPVGVIIVET QTMMQLIPAD PGQLDSHERS
VPRAGQVWFP
2001 DSATKTAQAL LDFNREGLPL FILANWRGFS GGQRLDFEGI
LQAGSTIVEN
2051 LRTYNQPAFV YIPMAGELRG GAWVVVDSKI NPDRIECYAE
RTAKGNVLEP
2101 QGLIEIKFRS EELQDCMGRD DPGLINLKAK LQAKLNGS
LTDVESLQKS
2151 IDARTKQLLP LYTQIAIRFA ELHDTSLRMA AKGVIKKVVD
WEESRSFFYR
2201 RLRRRISEVD LAKEIRGIAG DHFTHQSAVE LIKEWYLAQ
ATTGSTEWDD
2251 DDAFVAWKEN PENYKGYIQE LRAQKVSQSL SDLADSSSDL
EAFSQGLSTL
2301 LDKMDPSQRA KFIQEVKKVL G

FIGURE 9A

AY219175 - *SETARIA ITALICA* PLASTIDAL ACCASE DIM TOLERANT
CDNA (FOXTAIL MILLET) (SEQ ID NO:17)

```
1 AATGGCACTT TGCCTTTGAG AAAATATTTA ATTGTGCTGT
CTGGGCTACG GAACGACAAT
61 GTCGCAACTT GGATTAGCTG CAGCTGCCTC AAAGGCGCTG
CCACTACTTC CTAATCGCCA
121 TAGAACTTCA GCTGGAAC TAATCCCATC ACCTGTATCA
TCGCGGCCCT CAAACCGAAG
181 GAAAAGCCGC ACTCGTTCAC TTCGTGATGG AGGAGATGGG
GTATCAGATG CAAAAAGCA
241 CAACCAGTCT GTCCGTCAAG GTCTTGCTGG CATCATCGAC
CTCCCAAATG AGGCAACATC
301 GGAAGTGGAT ATTTCTCATG GATCCGAGGA TCCCAGGGGG
CCAACCGATT CATATCAAAT
361 GAATGGGATT GTAAATGAAG CACATAATGG CAGACATGCC
TCAGTGTCCA AGGTTGTTGA
421 ATTTTGTGCG GCGCTAGGTG GCAAAACACC AATTCACAGT
ATACTAGTGG CCAACAATGG
481 AATGGCAGCA GCAAAGTTCA TGAGGAGTGT CCGGACATGG
GCTAATGATA CTTTTGGATC
541 GGAGAAGGCG ATTCAGCTCA TAGCTATGGC AACTCCAGAA
GACATGAGGA TAAATGCAGA
601 ACACATTAGA ATTGCTGATC AATTTGTAGA GGTGCCTGGT
GGAACAAACA ATAACAATA
661 TGCAAATGTT CAACTCATAG TGGAGGTAGC AGAAAGAATA
GGTGTTCCTG CTGTTTGGCC
721 TGGTTGGGGT CATGCTTCTG AGAATCCTGA ACTTCCAGAT
GCATTGACCG CAAAAGGAAT
781 TGTTTTCCCT GGGCCACCTG CGGCATCAAT GAATGCATTG
GGAGATAAGG TCGGTTGAGC
841 TCTCATTGCT CAAGCAGCTG GGGTCCCGAC CCTTTCGTGG
AGTGGATCAC ATGTTGAAGT
901 TCCATTAGAG TGCTGCTTAG ATGCGATACC TGAGGAAATG
TATAGAAAAG CTTGTGTTAC
961 TACCACAGAA GAAGCTGTTG CGAGTTGTCA GGTGGTTGGT
TATCCTGCCA TGATTAAGGC
1021 ATCCTGGGGA GGTGGTGGTA AAGGAATAAG AAAGGTTTAT
AATGACGATG AGGTTAGAGC
1081 ACTGTTTAAG CAAGTACAAG GTGAAGTCCC TGGCTCCCCA
ATATTTATCA TGAGGCTTGC
1141 ATCCCAGAGT CGTCATCTTG AAGTTCAGTT GCTTTGTGAT
CAATATGGCA ATGTGGCAGC
1201 ACTTCACAGT CGTGATTGCA GTGTGCAACG GCGACACCAA
AAGATTATTG AGGAAGGCCC
```

FIGURE 9A CONTINUED

1261 AGTTACTGTT GCTCCTCGTG AGACAGTTAA AGCGCTTGAG
CAGGCAGCAA GGAGGCTTGC
1321 TAAGGCTGTG GGTTATGTTG GTGCTGCTAC TGTTGAATAC
CTTTACAGCA TGGAGACTGG
1381 GGAATACTAT TTTCTGGAGC TTAATCCCAG ATTACAGGTC
GAGCATCCAG TCACTGAGTG
1441 GATTGCTGAA GTAAATCTTC CTGCAGCTCA AGTTGCAGTT
GGAATGGGCA TACCTCTTTG
1501 GCAGATTCCA GAAATCAGAC GTTCTATGG AATGGACTAT
GGAGGAGGAT ATGACATTTG
1561 GAGGAAAACA GCAGCTCTTG CCACACCATT TAATTTTGAT
GAAGTAGATT CTCAATGGCC
1621 AAAGGGCCAT TGTGTAGCAG TTAGAATTAC TAGCGAGGAT
CCAGATGATG GTTTCAAACC
1681 TACTGGTGGG AAAGTGAAGG AGATAAGTTT TAAAAGCAAG
CCTAATGTTT GGGCCTACTT
1741 CTCAGTAAAG TCTGGTGGAG GCATTCATGA ATTTGCTGAT
TCTCAGTTTG GGCATGTTTT
1801 TGCATATGGG CTCTCTAGAT CAGCAGCAAT AACGAACATG
GCTCTTG CAT TAAAAGAGAT
1861 TCAAATTCGT GGAGAAATTC ATTCAAATGT TGATTACACA
GTTGATCTCT TAAATGCTTC
1921 AGACTTCAGA GAAAATAAGA TTCATACTGG CTGGCTTGAT
ACCAGAATAG CTATGCGTGT
1981 TCAAGCTGAG AGGCCCCCAT GGTATATTTT AGTGGTTGGA
GGAGCTCTAT ATAAAACAGT
2041 AACTGCCAAT GCAGCCACTG TTTCTGATTA TGTCAGTTAT
CTCACC AAG GCCAGATTCC
2101 ACCAAAGCAT ATATCCCTTG TCAGTTCAAC AGTTAATCTG
AATATCGAAG GGAGCAAATA
2161 CACAGTTGAA ACTGTAAGGA CTGGACATGG TAGCTACAGA
TTACGAATGA ATGATTCAGC
2221 AATTGAAGCG AATGTACAAT CTTTATGTGA TGGAGGCCTC
TTAATGCAGT TGGATGGAAA
2281 TAGCCATGTA ATTTACGCGG AAGAAGAAGC TGGTGGTACA
CGACTTCTGA TTGATGGAAA
2341 GACATGCTTG TTACAGAATG ATCATGATCC ATCAAAGTTA
TTAGCTGAGA CACCCTGCAA
2401 ACTTCTTCGG TTCTTGGTTG CTGATGGTGC TCATGTTGAT
GCTGATGTAC CATATGCGGA
2461 AGTTGAGGTT ATGAAAATGT GCATGCCTCT CTTGTCGCCT
GCTTCTGGTG TCATTCATGT
2521 TATGATGTCT GAGGGCCAGG CATTGCAGGC TGGTGATCTT
ATAGCAAGGC TGGATCTTGA

FIGURE 9A CONTINUED

2581 TGACCCCTTCT GCTGTGAAAA GAGCTGAACC ATTTTCATGGA
ATATTTCCAC AAATGGACCT
2641 TCCTGTTGCT GCCTCTAGCC AAGTACACAA AAGATATGCT
GCAAGTTTGA ATGCTGCTCG
2701 AATGGTCCTT GCAGGATACG AGCATAATAT CAATGAAGTT
GTACAAGATT TGGTATGCTG
2761 CCTGGATGAT CCCGAGCTTC CCTTCCTACA GTGGGATGAA
CTTATGTCAG TTCTAGCAAC
2821 TAGGCTTCCA AGAAATCTTA AGAGTGAGTT AGAGGATAAA
TACATGGAAT ACAAGTTGAA
2881 CTTTTACCAT GGGAAAAACA AGGACTTCCC GTCCAAGCTG
CTGAGAGACA TCATTGAGGC
2941 AAATCTTGCA TATGGTTCAG AGAAGGAAAA AGCTACGAAT
GAGAGGCTTA TTGAGCCTCT
3001 TATGAGCCTA CTTAAGTCAT ATGAGGGTGG GAGAGAAAGC
CATGCTCATT TTGTTGTCAA
3061 GTCCCTTTTC AAGGAGTACC TTGCTGTGGA AGAACTTTTC
AGTGATGGGA TTCAGTCTGA
3121 TGTGATTGAA ACCCTGCGTC ATCAGCACAG TAAAGACTTG
CAGAAGGTTG TAGACATTGT
3181 GTTGTCTCAC CAGGGTGTGA GGAACAAAGC TAAGCTTGTA
ACAGCACTTA TGGAAAAGCT
3241 GGTTTATCCA AATCCTGCTG CTTACAGGGA TCTGTTGGTT
CGCTTTTCTT CACTCAATCA
3301 TAAAAGATAT TATAAGTTGG CCCTTAAAGC AAGCGAACTT
CTTGAACAAA CTAAACTAAG
3361 TGAACCTCCGT GCAAGCATCG CAAGAAGCCT TTCTGATCTG
GGGATGCATA AGGGAGAAAT
3421 GACTATTGAA GATAGCATGG AAGATTTAGT CTCTGCCCCA
TTACCTGTCG AAGATGCACT
3481 TATTTCTTTG TTTGATTACA GTGATCCAAC TGTTTCAGCAG
AAAGTGATCG AGACATACAT
3541 ATCTCGATTG TATCAGCCTC TTCTTGTAAG AGATAGCATC
CAAGTGAAAT TTAAGGAATC
3601 TGGTGCCTTT GCTTTATGGG AATTTTCTGA AGGGCATGTT
GATACTAAAA ATGGACAAGG
3661 GACCGTTCTT GGTGCAACAA GATGGGGTGC CATGGTAGCT
GTCAAATCAG TTGAATCTGC
3721 ACGAACAGCC ATTGTAGCTG CATTAAAGGA TTCGGCACAG
CATGCCAGCT CTGAGGGCAA
3781 CATGATGCAC ATTGCCTTAT TGAGTGCTGA AAATGAAAAT
AATATCAGTG ATGATCAAGC
3841 TCAACATAGG ATGGAAAAAC TTAACAAGAT ACTCAAGGAT
ACTAGTGTCG CAAATGATCT

FIGURE 9A CONTINUED

3901 TCGAGCTGCT GGTTTGAAGG TTATAAGTTG CATTGTTCAA
AGAGATGAAG CACGCATGCC
3961 AATGCGCCAC ACATTACTCT GGTCAGATGA AAAGAGTTGT
TATGAGGAAG AGCAGATTCT
4021 TCGGCATGTG GAGCCTCCCC TCTCCATGCT TCTTGAAATG
GATAAGTTGA AAGTGAAAGG
4081 ATACAATGAA ATGAAGTATA CTCCATCACG TGATCGTCAA
TGGCATATCT ACACACTAAG
4141 AAATACTGAA AACCCCAAAA TGTTGCATAG GGTATTTTTTC
CGAACTATTG TCAGGCAACC
4201 CAATGCAGGC AACAAGTTTA TATCAGCCCA AATTGGCGAC
ACTGAAGTAG GAGGTCCTGA
4261 GGAATCTTTG TCATTTACAT CTAATAGCAT TTTAAGAGCC
TTGATGACTG CTATTGAAGA
4321 ATTAGAGCTT CATGCAATTA GGACTGGTCA TTCTCACATG
TATTTGTGCA TATTGAAAGA
4381 ACAAAGCTT CTTGATCTCA TTCCGTTTTTC AGGGAGCACA
ATCGTCGATG TTGGCCAAGA
4441 CGAAGCTACT GCTTGTTTAC TTTTAAAATC AATGGCTTTG
AAGATACACG AACTTGTTGG
4501 TGCACAGATG CATCATCTTT CTGTATGCCA GTGGGAGGTG
AAACTCAAGT TGTACTGCGA
4561 TGGGCCTGCC AGTGGCACCT GGAGAGTTGT AACTACAAAT
GTTACTAGTC ACACTTGCAC
4621 CATTGATATC TACCGGGAAG TGGAAGATAC TGAATCGCAG
AAGTTAGTAT ACCATTGAGC
4681 TTCTCCGTCA GCTAGTCCTT TGCATGGTGT GGCCCTGGAT
AATCCGTATC AACCTTTGAG
4741 TGTCATTGAT CTAAAACGCT GCTCTGCTAG GAACAACAGA
ACTACATATT GCTATGATTT
4801 TCCACTGGCA TTTGAAACTG CCCTGCAGAA GTCATGGCAG
TCCAATGGCT CCAGTGTTTC
4861 TGAAGGCAGT GAAAATAGTA GGTCTTATGT GAAAGCAACA
GAGCTGGTGT TTGCTGAAAA
4921 ACATGGGTCC TGGGGCACTC CTATAATTTT CATGGAGCGT
CCCGCTGGGC TCAATGACAT
4981 TGGCATGGTA GCTTGATCT TAGAGATGTC CACTCCTGAA
TTTCCCAATG GCAGGCAGAT
5041 TATTGTCATA GCAAATGATA TTACTTTCAG AGCTGGATCA
TTTGGCCCAA GGGAAGATGC
5101 GTTTTTTGA GCTGTCACGA ACCTGGCCTG CGAGAGGAAG
CTTCCTCTTA TATACTTGGC
5161 AGCAAACCTCC GGTGCTAGGA TTGGCATAGC CGATGAAGTG
AAATCTTGCT TCCGTGTTGG

FIGURE 9A CONTINUED

5221 GTGGTCCGAT GAAGGCAGCC CTGAACGGGG TTTTCAGTAC
ATTTATCTGA CTGACGAAGA
5281 CTATGCCCCGT ATTAGCTTGT CTGTTATAGC ACACAAGCTG
CAGCTGGATA ATGGTGAAAT
5341 TAGGTGGATT ATTGACTCTG TTGTGGGCAA GGAGGATGGG
CTTGGTGTTG AGAATCTACA
5401 TGGAAGTGCT GCTATTGCCA GTGCTTATTC TAGGGCATAT
GAGGAGACAT TTACACTTAC
5461 ATTTGTGACT GGGCGGACTG TTGGAATAGG AGCATATCTC
GCTCGGCTCG GTATACGGTG
5521 CATAACGCGT CTTGACCAGC CTATTATTTT AACTGGGTTT
TCTGCCCTGA ACAAGCTTCT
5581 TGGGCGGGAA GTGTACAGCT CCCACATGCA GTTGGGTGGT
CCTAAGATCA TGGCGACCAA
5641 TGGTGTTGTC CACTTGAAGT TTTTCAGATGA CCTTGAAGGT
GTTTCCAATA TATTGAGGTG
5701 GCTCAGCTAT GTTCCTGCCA ACATTGGTGG ACCTCTTCCT
ATTACAAAAC CTTTGGACCC
5761 ACCAGACAGA CCTGTTGCAT ACATCCCTGA GAACACATGT
GATCCGCGCG CAGCCATTCG
5821 TGGTGATAGT GACAGCCAAG GGAAATGGTT GGGTGGTATG
TTTGACAAAG ACAGCTTTGT
5881 CGAGACATTT GAAGGATGGG CGAAAACAGT GGTTACGGGC
AGAGCAAAGC TTGGAGGAAT
5941 TCCTGTTGGT GTCATAGCTG TGGAGACACA AACCATGATG
CAGCTTATCC CTGCTGATCC
6001 AGGCCAGCTT GATTCCCATG AGCGATCTGT TCCTCGGGCT
GGACAAGTGT GGTTCCCAGA
6061 TTCTGCAACC AAGACAGCTC AGGCATTGTT GGACTTCAAC
CGTGAAGGAT TGCCGCTGTT
6121 CATCCTTGCT AACTGGAGAG GATTCTCTGG TGGACAAAGA
GATCTGTTTG AAGGAATTCT
6181 TCAGGCTGGG TCAACAATTG TTGAGAACCT TAGGACATAC
AATCAGCCTG CTTTTGTCTA
6241 CATTCCATG GCTGGAGAGC TCGTGGAGG AGCTTGGGTT
GTGGTTGATA GCAAAATAAA
6301 TCCAGACCGA ATTGAGTGTT ATGCTGAGAG GACTGCTAAA
GGCAATGTTC TTGAACCTCA
6361 AGGGTTAATT GAAATCAAAT TCAGATCAGA GGAGCTCCAA
GACTGTATGG GTAGGCTTGA
6421 CCCAGAGTTG ATAAATCTGA AAGCAAACT CCAAGGTGCA
AAGCTTGGA ATGGAAGCCT
6481 AACAGATGTA GAATCCCTTC AGAAGAGTAT AGATGCTCGT
ACGAAACAGT TGTTGCCTTT

FIGURE 9A CONTINUED

6541 ATACACCCAG ATTGCAATAC GGTTTGCTGA ATTGCATGAT
ACTTCCCTCA GAATGGCAGC
6601 TAAAGGTGTG ATTAAGAAAG TTGTAGATTG GGAAGAATCA
CGTTCCTTCT TCTACAGAAG
6661 GCTACGGAGG AGGATCTCTG AAGATGTTCT TGCAAAAGAA
ATAAGAGGAA TAGCTGGTGA
6721 CCACTTCACT CACCAATCAG CAGTTGAGCT GATCAAGGAA
TGGTACTTGG CTTCTCAAGC
6781 CACAACAGGA AGCACTGAAT GGGATGATGA TGATGCTTTT
GTTGCCTGGA AGGAGAATCC
6841 TGAAACTAT AAGGGATATA TCCAAGAGTT AAGGGCTCAA
AAGGTGTCTC AGTCGCTCTC
6901 CGATCTTGCA GACTCCAGTT CAGATCTAGA AGCATTCTCA
CAGGGTCTTT CCACATTATT
6961 AGATAAGATG GATCCCTCTC AGAGAGCCAA GTTCATTGAG
GAAGTCAAGA AGGTCCTGGG
7021 TTGATGAATA CCAACACATT CAACACAATG TGTATGCTAC
ATGTTTTTGT TCAAGTACAT
7081 ACATAGAAGG ATATTGATCA TATCTGATCT GAATCGACCA
TGATTTGTGA AAAGTTCTGT
7141 TGGACCTAAT TCTGTGGTTG GTATCAGCAC AAAGCTTGGG
GGAGCTGAGT GACAGACAGT
7201 CAGCAAGGGC ACAAGTGAAT CTGTGTTCTG GTTTTGCAGG
GGTCCAGTAA GGCACAAAGT
7261 TGTTTCGCTA TAGTTATGTG ATGTAACCAG CGGTTCAATT
CTGTAATTTT TGGGTGTATC
7321 ATGCGGATCC TAGCATACTG TTGAGGTCAT TAAATTTTGA
ACTTGAATAA TATGTTTTGT
7381 AGGCATGTGT ACCACTACGT GTAATAAACT TGTTGAATTA
GCAGTCTAAA AAAAAAAAAA
7441 AAAAAA

FIGURE 9B

AY219175 – *SETARIA ITALICA* PLASTIDAL ACCASE TRANSLATED DIM
TOLERANT PROTEIN (FOXTAIL MILLET) (SEQ ID NO: 18)

1 MSQLGLAAAA SKALPLLPNR HRTSAGTTFP SPVSSRPSNR
RKSRTSLRD
51 GGDGVSDAKK HNQSVRQGLA GIIDL PNEAT SEVDISHGSE
DPRGPTDSYQ
101 MNGIVNEAHN GRHASVSKVV EFCAALGGKT PIHSILVANN
GMAAAKFMRS
151 VRTWANDTFG SEKAIQLIAM ATPEDMRINA EHIRIADQFV
EVPGGTNNNN
201 YANVQLIVEV AERIGVSAVW PGWGHASENP ELPDALTAKG
IVFLGPPAAS
251 MNALGDKVGS ALIAQAAGVP TLSWSGSHVE VPLECCLDAI
PEEMYRKACV
301 TTTEEAVASC QVVGYPAMIK ASWGGGGKGI RKVHNDDEV
ALFKQVQGEV
351 PGSPIFIMRL ASQSRHLEVQ LLC DQYGNVA ALHSRDCSVQ
RRHQKIIIEG
401 PVTVAPRETV KALEQAARRL AKAVGYVGAA TVEYLYSMET
GEYYFLELNP
451 RLQVEHPVTE WIAEVNLPAA QVAVGMGIPL WQIPEIRRFY
GMDYGGGYDI
501 WRKTAALATP FNFDEVDSQW PKGHCVAVRI TSEDPDDGFK
PTGGKVKEIS
551 FKSKPNVWAY FSVKSGGGIH EFADSQFGHV FAYGLSRSA
ITNMALALKE
601 IQIRGEIHSN VDYTVDLLNA SDFRENKIHT GWLDTRIAMR
VQAERPPWYI
651 SVVGGALYKT VTANAATVSD YVSYLTGQI PPKHISLVSS
TVNLNIEGSK
701 YTVETVRTGH GSYRLRMNDS AIEANVQSLC DGGLLMQLDG
NSHVIYAE
751 AGGTRLLIDG KTCLLQNDHD PSKLLAETPC KLLRFLVADG
AHVDADVPYA
801 EVEVMKMCMP LLSPASGVIIH VMMSEGQALQ AGDLIARLDL
DDPSAVKRAE
851 PFHGIFPQMD LPVAASSQVH KRYAASLNAA RMVLAGYEHN
INEVVQDLVC
901 CLDDPELPFL QWDELMSVLA TRLPRLNKSE LEDKYMAYKL
NFYHGKKNKDF
951 PSKLLRDIIE ANLAYGSEKE KATNERLIEP LMSLLKSYEG
GRESHAFVV
1001 KSLFKEYLAV EELFSDGIQS DVIETLRHQH SKDLQKVVDI
VLHQGVVRNK
1051 AKLV TALMEK LVYPNPAAAYR DLLVRFSSLN HKRYYKLALK
ASELLEQTKL
1101 SELRASIARS LSDLGMHKGE MTIEDSMEDL VSAPLPVEDA
LISLFDYSDP
1151 TVQQKVIETY ISRLYQPLLK KDSIQVKFKE SGAFALWEFS
EGHVDTKNGQ

FIGURE 9B CONTINUED

1201 GTVLGRTRWG AMVAVKSVES ARTAIVAALK DSAQHASSEG
NMMHIALLSA
1251 ENENNISDDQ AQHRMEKLNK ILKDTSVAND LRAAGLKVIS
CIVQRDEARM
1301 PMRHTLLWSD EKSCYEEEQI LRHVEPPLSM LLEMDKLVK
GYNEMKYTPS
1351 RDRQWHIYTL RNTENPKMLH RVFFRTIVRQ PNAGNKFISA
QIGDTEVGGP
1401 EESLSFTSNS ILRALMTAIE ELELHAIRTG HSHMYLCILK
EQKLLDLIPF
1451 SGSTIVDVGQ DEATACSLK SMALKIHELV GAQMHHLSVC
QWEVKLKLYC
1501 DGPASGTWRV VTTNVTSTHC TIDIYREVED TESQKLIVHS
ASPSASPLHG
1551 VALDNPYQPL SVIDLKRCSA RNNRTTYCYD FPLAFETALQ
KSWQSNSSV
1601 SEGSENSRSY VKATELVFAE KHGSWGTPII SMERPAGLND
IGMVAWILEM
1651 STPEFPNGRQ IIVIANDITF RAGSFGPRED AFFEAVTNLA
CERKLPLIYL
1701 AANSGARIGI ADEVKSCFRV GWSDEGSPER GFQYIYLTDE
DYARISLSVI
1751 AHKLQLDNGE IRWIIDSVVG KEDGLGVENL HGSAAIASAY
SRAYEETFTL
1801 TFLTGRTVGI GAYLARLGIR CIQRLDQPII LTGFSALNKL
LGREYSSHM
1851 QLGGPKIMAT NGVVHLTVSD DLEGVSNILR WLSYVPANIG
GPLPITKPLD
1901 PPDRPVAYIP ENTCDPRAAI RGVDDSQGW LGGMFDKDSF
VETFEWAKT
1951 VVTGRAKLGG IPVGVIIVET QTMMQLIPAD PGQLDSHERS
VPRAGQVWFP
2001 DSATKTAQAL LDFNREGLPL FILANWRGFS GGQRLDFEGI
LQAGSTIVEN
2051 LRTYNQPAFV YIPMAGELRG GAWVVVDSKI NPDRIECYAE
RTAKGNVLEP
2101 QGLIEIKFRS EELQDCMGRD DPGLNLKAK LQAKLNGS
LTDVESLQKS
2151 IDARTKQLLP LYTQIAIRFA ELHDTSLRMA AKGVIKKVVD
WEESRSFFYR
2201 RLRRRISEVD LAKEIRGIAG DHFTHQSAVE LIKEWYLASQ
ATTGSTEWDD
2251 DDAFVAWKEN PENYKGYIQE LRAQKVSQSL SDLADSSSDL
EAFSQGLSTL
2301 LDKMDPSQRA KFIQEVKKVL G

FIGURE 10A
AF294805 – *SETARIA ITALIC* PLASTIDAL ACCASE CDNA (FOXTAIL
MILLET) (SEQ ID NO:19)

```
1  CCGCCCTCCT GGCTCGCCCC CACCCCTCGG GATATCCGCC
   TCGCCTCGCC TCCACTCCAC
61  CCGGCGCCTC CTCTCCCCTC CTCTGCTCCG CCCC GCCGCC
   GCAAGGATCC AAACCCCGCG
121 CGTCGCCTTC TCCGCCGCCT CCCTCTTTCT CCCC GAGATT
   TCCCAGGAGT TTTTGCTCTC
181 TTTTAATGGC ACTTTGCCTT TGAGAAAATA TTTAATTGTG
   CTGTCTGGGC TACGGAACGA
241 CAATGTCGCA ACTTGGAATTA GCTGCAGCTG CCTCAAAGGC
   GCTGCCACTA CTTCTAATC
301 GCCATAGAAC TTCAGCTGGA ACTACATTCC CATCACCTGT
   ATCATCGCGG CCCTCAAACC
361 GAAGGAAAAAG CCGCACTCGT TCACTTCGTG ATGGAGGAGA
   TGGGGTATCA GATGCCAAAA
421 AGCACAACCA GTCTGTCCGT CAAGGTCTTG CTGGCATCAT
   CGACCTCCCA AATGAGGCAA
481 CATCGGAAGT GGATATTTCT CATGGATCCG AGGATCCCAG
   GGGGCCAACC GATTCATATC
541 AAATGAATGG GATTGTAAAT GAAGCACATA ATGGCAGACA
   TGCCTCAGTG TCCAAGGTTG
601 TTGAATTTTG TCGGCGCTA GGTGGCAAAA CACCAATTCA
   CAGTATACTA GTGGCCAACA
661 ATGGAATGGC AGCAGCAAAG TTCATGAGGA GTGTCCGGAC
   ATGGGCTAAT GATACTTTTG
721 GATCGGAGAA GGCGATTGAG CTCATAGCTA TGGCAACTCC
   AGAAGACATG AGGATAAATG
781 CAGAACACAT TAGAATTGCT GATCAATTTG TAGAGGTGCC
   TGGTGAACA AACAATAACA
841 ACTATGCAAA TGTTCAACTC ATAGTGGAGG TAGCAGAAAG
   AATAGGTGTT TCTGCTGTTT
901 GGCCTGGTTG GGGTCATGCT TCTGAGAATC CTGAACTTCC
   AGATGCATTG ACCGCAAAAG
961 GAATTGTTTT CCTTGGGCCA CCTGCGGCAT CAATGAATGC
   ATTGGGAGAT AAGGTCGGTT
1021 CAGCTCTCAT TGCTCAAGCA GCTGGGGTCC CGACCCTTTC
   GTGGAGTGGA TCACATGTTG
1081 AAGTTCCATT AGAGTGCTGC TTAGATGCGA TACCTGAGGA
   AATGTATAGA AAAGCTTGTG
1141 TTACTACCAC AGAAGAAGCT GTTGCAGATT GTCAGGTGGT
   TGGTTATCCT GCCATGATTA
1201 AGGCATCCTG GGGAGGTGGT GGTAAAGGAA TAAGAAAGGT
   TCATAATGAC GATGAGGTTA
```

FIGURE 10A CONTINUED

1261 GAGCACTGTT TAAGCAAGTA CAAGGTGAAG TCCCTGGCTC
CCCAATATTT ATCATGAGGC
1321 TTGCATCCCA GAGTCGTCAT CTTGAAGTTC AGTTGCTTTG
TGATCAATAT GGCAATGTGG
1381 CAGCACTTCA CAGTCGTGAT TGCAGTGTGC AACGGCGACA
CCAAAAGATT ATTGAGGAAG
1441 GCCCAGTTAC TGTTGCTCCT CGTGAGACAG TTAAAGCGCT
TGAGCAGGCA GCAAGGAGGC
1501 TTGCTAAGGC TGTGGGTAT GTTGGTGCTG CTA CTACTGTTGA
ATACCTTTAC AGCATGGAGA
1561 CTGGGGAATA CTATTTTCTG GAGCTTAATC CCAGATTACA
GGTCGAGCAT CCAGTCACTG
1621 AGTGGATTGC TGAAGTAAAT CTTCTGCAG CTCAAGTTGC
AGTTGGAATG GGCATACCTC
1681 TTTGGCAGAT TCCAGAAATC AGACGTTTCT ATGGAATGGA
CTATGGAGGA GGATATGACA
1741 TTTGGAGGAA AACAGCAGCT CTTGCCACAC CATTTAATTT
TGATGAAGTA GATTCTCAAT
1801 GGCCAAAGGG CCATTGTGTA GCAGTTAGAA TTACTAGCGA
GGATCCAGAT GATGGTTTCA
1861 AACCTACTGG TGGGAAAGTG AAGGAGATAA GTTTTAAAAG
CAAGCCTAAT GTTTGGGCCT
1921 ACTTCTCAGT AAAGTCTGGT GGAGGCATTC ATGAATTTGC
TGATTCTCAG TTTGGGCATG
1981 TTTTTCGATA TGGGCTCTCT AGATCAGCAG CAATAACGAA
CATGGCTCTT GCATTAAAAG
2041 AGATTCAAAT TCGTGGAGAA ATTCATTCAA ATGTTGATTA
CACAGTTGAT CTCTTAAATG
2101 CTTCAGACTT CAGAGAAAAT AAGATTCATA CTGGCTGGCT
TGATAACCAGA ATAGCTATGC
2161 GTGTTCAAGC TGAGAGGCCC CCATGGTATA TTTCAGTGGT
TGGAGGAGCT CTATATAAAA
2221 CAGTAACTGC CAATGCAGCC ACTGTTTCTG ATTATGTCAG
TTATCTCACC AAGGGCCAGA
2281 TTCCACCAA GCATATATCC CTTGTCAGTT CAACAGTTAA
TCTGAATATC GAAGGGAGCA
2341 AATACACAGT TGAACTGTA AGGACTGGAC ATGGTAGCTA
CAGATTACGA ATGAATGATT
2401 CAGCAATTGA AGCGAATGTA CAATCTTTAT GTGATGGAGG
CCTCTTAATG CAGTTGGATG
2461 GAAATAGCCA TGTAATTTAC GCGGAAGAAG AAGCTGGTGG
TACACGACTT CTGATTGATG
2521 GAAAGACATG CTTGTTACAG AATGATCATG ATCCATCAAA
GTTATTAGCT GAGACACCCT

FIGURE 10A CONTINUED

2581 GCAAACCTTCT TCGGTTCTTG GTTGCTGATG GTGCTCATGT
TGATGCTGAT GTACCATATG
2641 CGGAAGTTGA GGTTATGAAA ATGTGCATGC CTCTCTTGTC
GCCTGCTTCT GGTGTCATTG
2701 ATGTTATGAT GTCTGAGGGC CAGGCATTGC AGGCTGGTGA
TCTTATAGCA AGGCTGGATC
2761 TTGATGACCC TTCTGCTGTG AAAAGAGCTG AACCATTTC
TGGAATATTT CCACAAATGG
2821 ACCTTCCTGT TGCTGCCTCT AGCCAAGTAC AAAAAAGATA
TGCTGCAAGT TTGAATGCTG
2881 CTCGAATGGT CCTTGCAGGA TACGAGCATA ATATCAATGA
AGTTGTACAA GATTTGGTAT
2941 GCTGCCTGGA TGATCCCGAG CTTCCCTTCC TACAGTGGGA
TGAACCTATG TCAGTTCTAG
3001 CAACTAGGCT TCCAAGAAAT CTTAAGAGTG AGTTAGAGGA
TAAATACATG GAATACAAGT
3061 TGAACCTTTTA CCATGGGAAA AACAAAGGACT TCCCGTCCAA
GCTGCTGAGA GACATCATTG
3121 AGGCAAATCT TGCATATGGT TCAGAGAAGG AAAAAAGCTAC
GAATGAGAGG CTTATTGAGC
3181 CTCTTATGAG CCTACTTAAG TCATATGAGG GTGGGAGAGA
AAGCCATGCT CATTTTGTTG
3241 TCAAGTCCCT TTTCAAGGAG TACCTTGCTG TGGAAGAACT
TTTCAGTGAT GGGATTCAGT
3301 CTGATGTGAT TGAAACCCTG CGTCATCAGC ACAGTAAAGA
CTTGCAGAAG GTTGTAGACA
3361 TTGTGTTGTC TCACCAGGGT GTGAGGAACA AAGCTAAGCT
TGTAACAGCA CTTATGGAAA
3421 AGCTGGTTTA TCCAAATCCT GCTGCTTACA GGGATCTGTT
GGTTCGCTTT TCTTCACTCA
3481 ATCATAAAAAG ATATTATAAG TTGGCCCTTA AAGCAAGCGA
ACTTCTTGAA CAACTAAAC
3541 TAAGTGAACCT CCGTGCAAGC ATCGCAAGAA GCCTTTCTGA
TCTGGGGATG CATAAGGGAG
3601 AAATGACTAT TGAAGATAGC ATGGAAGATT TAGTCTCTGC
CCCATTACCT GTCGAAGATG
3661 CACTTATTTT TTTGTTTGAT TACAGTGATC CAACTGTTCA
GCAGAAAGTG ATCGAGACAT
3721 ACATATCTCG ATTGTATCAG CCTCTTCTTG TGAAAGATAG
CATCCAAGTG AAATTTAAGG
3781 AATCTGGTGC CTTTGCTTTA TGGAATTTT CTGAAGGGCA
TGTTGATACT AAAAATGGAC
3841 AAGGGACCGT TCTTGGTCGA ACAAGATGGG GTGCCATGGT
AGCTGTCAAA TCAGTTGAAT

FIGURE 10A CONTINUED

3901 CTGCACGAAC AGCCATTGTA GCTGCATTAA AGGATTCGGC
ACAGCATGCC AGCTCTGAGG
3961 GCAACATGAT GCACATTGCC TTATTGAGTG CTGAAAAATGA
AAATAATATC AGTGATGATC
4021 AAGCTCAACA TAGGATGGAA AACTTAACA AGATACTCAA
GGATACTAGT GTCGCAAATG
4081 ATCTTCGAGC TGCTGGTTTG AAGGTTATAA GTTGCATTGT
TCAAAGAGAT GAAGCACGCA
4141 TGCCAATGCG CCACACATTA CTCTGGTCAG ATGAAAAGAG
TTGTTATGAG GAAGAGCAGA
4201 TTCTTCGGCA TGTGGAGCCT CCCCTCTCCA TGCTTCTTGA
AATGGATAAG TTGAAAGTGA
4261 AAGGATACAA TGAAATGAAG TATACTCCAT CACGTGATCG
TCAATGGCAT ATCTACACAC
4321 TAAGAAATAC TGAAAACCCC AAAATGTTGC ATAGGGTATT
TTTCCGAAC TTTGTCAGGC
4381 AACCCAATGC AGGCAACAAG TTTATATCAG CCCAAATTGG
CGACACTGAA GTAGGAGGTC
4441 CTGAGGAATC TTTGTCATTT ACATCTAATA GCATTTTAA
AGCCTTGATG ACTGCTATTG
4501 AAGAATTAGA GCTTCATGCA ATTAGGACTG GTCATTCTCA
CATGTATTTG TGCATATTGA
4561 AAGAACAAAA GCTTCTTGAT CTCATTCCGT TTTCAGGGAG
CACAATCGTC GATGTTGGCC
4621 AAGACGAAGC TACTGCTTGT TCACTTTTAA AATCAATGGC
TTTGAAGATA CACGAACTTG
4681 TTGGTGACA GATGCATCAT CTTTCTGTAT GCCAGTGGGA
GGTGAACTC AAGTTGTACT
4741 GCGATGGGCC TGCCAGTGGC ACCTGGAGAG TTGTAACTAC
AAATGTTACT AGTCACACTT
4801 GCACCGTTGA TATCTACCGG GAAGTGGAAG ATACTGAATC
GCAGAAGTTA GTATACCATT
4861 CAGCTTCTCC GTCAGCTAGT CCTTTGCATG GTGTGGCCCT
GGATAATCCG TATCAACCTT
4921 TGAGTGTCAT TGATCTAAAA CGCTGCTCTG CTAGGAACAA
CAGAACTACA TATTGCTATG
4981 ATTTTCCACT GGCATTTGAA ACTGCCCTGC AGAAGTCATG
GCAGTCCAAT GGCTCCAGTG
5041 TTTCTGAAGG CAGTGAAAAT AGTAGGTCTT ATGTGAAAGC
AACAGAGCTG GTGTTTGCTG
5101 AAAAACATGG GTCCTGGGGC ACTCCTATAA TTTCCATGGA
GCGTCCCGCT GGGCTCAATG
5161 ACATTGGCAT GGTAGCTTGG ATCTTAGAGA TGTCCACTCC
TGAATTTCCC AATGGCAGGC

FIGURE 10A CONTINUED

5221 AGATTATTGT CATAGCAAAT GATATTACTT TCAGAGCTGG
ATCATTTGGC CCAAGGGAAG
5281 ATGCGTTTTT TGAAGCTGTC ACGAACCTGG CCTGCGAGAG
GAAGCTTCCT CTTATATACT
5341 TGGCAGCAAA CTCCGGTGCT AGGATTGGCA TAGCCGATGA
AGTGAAATCT TGCTTCCGTG
5401 TTGGGTGGTC CGATGAAGGC AGCCCTGAAC GGGGTTTTCA
GTACATTTAT CTGACTGACG
5461 AAGACTATGC CCGTATTAGC TTGTCTGTTA TAGCACACAA
GCTGCAGCTG GATAATGGTG
5521 AAATTAGGTG GATTATTGAC TCTGTTGTGG GCAAGGAGGA
TGGGCTTGGT GTTGAGAATA
5581 TACATGGAAG TGCTGCTATT GCCAGTGCTT ATTCTAGGGC
ATATGAGGAG ACATTTACAC
5641 TTACATTTGT GACTGGGCGG ACTGTTGGAA TAGGAGCATA
TCTTGCTCGG CTCGGTATAC
5701 GGTGCATACA GCGTCTTGAC CAGCCTATTA TTTTAACTGG
GTTTTCTGCC CTGAACAAGC
5761 TTCTTGGGCG GGAAGTGTAC AGCTCCCACA TGCAGTTGGG
TGGTCCTAAG ATCATGGCGA
5821 CCAATGGTGT TGTCCACTTG ACTGTTTCAG ATGACCTTGA
AGGTGTTTCC AATATATTGA
5881 GGTGGCTCAG CTATGTTTCT GCCAACATTG GTGGACCTCT
TCCTATTACA AAACCTTTGG
5941 ACCCACCAGA CAGACCTGTT GCATACATCC CTGAGAACAC
ATGTGATCCG CGCGCAGCCA
6001 TTCGTGGTGT AGATGACAGC CAAGGGAAAT GGTGGGTGG
TATGTTTGAC AAAGACAGCT
6061 TTGTCGAGAC ATTTGAAGGA TGGGCGAAAA CAGTGGTTAC
GGGCAGAGCA AAGCTTGGAG
6121 GAATTCCTGT TGGTGTCTATA GCTGTGGAGA CACAAACCAT
GATGCAGCTT ATCCCTGCTG
6181 ATCCAGGCCA GCTTGATTCC CATGAGCGAT CTGTTCTCTG
GGCTGGACAA GTGTGGTTCC
6241 CAGATTCTGC AACCAAGACA GCTCAGGCAT TGTTGGACTT
CAACCGTGAA GGATTGCCGC
6301 TGTTTCATCT TGCTAACTGG AGAGGATTCT CTGGTGGACA
AAGAGATCTG TTTGAAGGAA
6361 TTCTTCAGGC TGGGTCAACA ATTGTTGAGA ACCTTAGGAC
ATACAATCAG CCTGCTTTTG
6421 TCTACATTCC TATGGCTGGA GAGCTGCGTG GAGGAGCTTG
GGTTGTGGTT GATAGCAAAA
6481 TAAATCCAGA CCGAATTGAG TGTTATGCTG AGAGGACTGC
TAAAGGCAAT GTTCTGGAAC

FIGURE 10A CONTINUED

6541 CTCAAGGGTT AATTGAAATC AAATTCAGAT CAGAGGAGCT
CCAAGACTGT ATGGGTAGGC
6601 TTGACCCAGA GTTGATAAAT CTGAAAGCAA AACTCCAAGG
TGCAAAGCTT GGAAATGGAA
6661 GCCTAACAGA TGTAGAATCC CTTCAGAAGA GTATAGATGC
TCGTACGAAA CAGTTGTTGC
6721 CTTTATACAC CCAGATTGCA ATACGGTTTG CTGAATTGCA
TGATACTTCC CTCAGAAATGG
6781 CAGCTAAAGG TGTGATTAAG AAAGTTGTAG ATTGGGAAGA
ATTACGTTCT TTCTTCTACA
6841 GAAGGCTACG GAGGAGGATC TCTGAAGATG TTCTTGCAAA
AGAAATAAGA GGAATAGCTG
6901 GTGACCACTT CACTCACCAA TCAGCAGTTG AGCTGATCAA
GGAATGGTAC TTGGCTTCTC
6961 AAGCCACAAC AGGAAGCACT GAATGGGATG ATGATGATGC
TTTTGTTGCC TGGAAGGAGA
7021 ATCCTGAAAA CTATAAGGGA TATATCCAAG AGTTAAGGGC
TCAAAAGGTG TCTCAGTCGC
7081 TCTCCGATCT TGCAGACTCC AGTTCAGATC TAGAAGCATT
CTCACAGGGT CTTTCCACAT
7141 TATTAGATAA GATGGATCCC TCTCAGAGAG CCAAGTTCAT
TCAGGAAGTC AAGAAGGTCC
7201 TGGGTTGATG AATACCAACA CATTCAACAC AATGTGTATG
CTACATGTTT TTGTTCAAGT
7261 ACATACATAG AAGGATATTG ATCATATCTG ATCTGAATCG
ACCATGATTT GTTAAAAGTT
7321 CTGTTGGACC TAATTCTGTG GTCGGTATCA GCACAAAGCT
TGGGGGAGCT GAGTGACAGA
7381 CAGTTAGCAA GGGCACAAGT GAATCTGTGT TCTGGTTTTG
CAGGGGTCCA GTAAGGCACA
7441 AAGTTGTTTC GCTATAGTTA TGTGATGTAA CCAGCGGTTT
AATTCTGTAA TTTTGGGTG
7501 TATCATGCGG ATCCTAGCAT ACTGTTGAGG TCATTAAATT
TTGAACTTGA ATAATATGTT
7561 TTGTAGGCAT GTGTACCACT ACCTGTAATA AACTTGTG
ATTAGCAGTC TAAAAAAAAA
7621 AAAAAAAAAA

FIGURE 10B
AF294805 – *SETARIA ITALICA* PLASTIDAL ACCASE TRANSLATED
PROTEIN (FOXTAIL MILLET) (SEQ ID NO: 20)

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      1 MSQLGLAAAA SKALPLLPNR HRTSAGTTFP SPVSSRPSNR
RKSRTSLRD
     51 GGDGVSDAKK HNQSVRQGLA GIIDL PNEAT SEVDISHGSE
DPRGPTDSYQ
    101 MNGIVNEAHN GRHASVSKVV EFCAALGGKT PIHSILVANN
GMAAAKFMRS
    151 VRTWANDTFG SEKAIQLIAM ATPEDMRINA EHIRIADQFV
EVPGGTNNNN
    201 YANVQLIVEV AERIGVSAVW PGWGHASENP ELPDALTAKG
IVFLGPPAAS
    251 MNALGDKVGS ALIAQAAGVP TLSWSGSHVE VPLECCLDAI
PEEMYRKACV
    301 TTTEEAVASC QVVGYPAMIK ASWGGGGKGI RKVHNDDEVR
ALFKQVQGEV
    351 PGSPIFIMRL ASQSRHLEVQ LLC DQYGNVA ALHSRDCSVQ
RRHQKIIIEG
    401 PVTVAPRETV KALEQAARRL AKAVGYVGAA TVEYLYSMET
GEYYFLELNP
    451 RLQVEHPVTE WIAEVNLPAA QVAVGMGIPL WQIPEIRRFY
GMDYGGGYDI
    501 WRKTAALATP FNFDEVDSQW PKGHCVAVRI TSED PDDGFK
PTGGKVKEIS
    551 FSKSPNVWAY FSVKSGGGIH EFADSQFGHV FAYGLSRSA
ITNMALALKE
    601 IQIRGEIHSN VDYTVDLLNA SDFRENKIHT GWLDTRIAMR
VQAERPPWYI
    651 SVVGGALYKT VTANAATVSD YVSYLTGQI PPKHISLVSS
TVNLNIEGSK
    701 YTVETVRTGH GSYRLRMNDS AIEANVQSLC DGGLLMQLDG
NSHVIYAE
    751 AGGTRLLIDG KTCLLQNDHD PSKLLAETPC KLLRFLVADG
AHVDADVPYA
    801 EVEVMKMCMP LLSPASGVII VMMSEGQALQ AGDLIARLDL
DDPSAVKRAE
    851 PFHGIFPQMD LPVAASSQVH KRYAASLNAA RMVLAGYEH
INEVVQDLVC
    901 CLDDPELPFL QWDELMSVLA TRLPRNLKSE LEDKYMAYKL
NFYHGKKNDF
    951 PSKLLRDIIE ANLAYGSEKE KATNERLIEP LMSLLKSYEG
GRESHAFVV
   1001 KSLFKEYLAV EELFSDGIQS DVIETLRHQH SKDLQKVVDI
VLSHQGVNRK
   1051 AKLVTALMEK LVYPNPAAYR DLLVRFSSLN HKRYYKLALK
ASELLEQTKL
   1101 SELRASIARS LSDLGMHKGE MTIEDSMEDL VSAPLPVEDA
LISLFDYSDP

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FIGURE 10B CONTINUED

1151 TVQQKVIETY ISRLYQPLLK KDSIQVKFKE SGAFALWEFS
EGHVDTKNGQ
1201 GTVLGRTRWG AMVAVKSVES ARTAIVAALK DSAQHASSEG
NMMHIALLSA
1251 ENENNISDDQ AQHRMEKLNK ILKDTSVAND LRAAGLKVIS
CIVQRDEARM
1301 PMRHTLLWSD EKSCYEEEQI LRHVEPPLSM LLEMDKLKVK
GYNEMKYTPS
1351 RDRQWHIYTL RNTENPKMLH RVFFRTIVRQ PNAGNKFISA
QIGDTEVGGP
1401 EESLSFTSNS ILRALMTAIE ELELHAIRTG HSHMYLCILK
EQKLLDLIPF
1451 SGSTIVDVGQ DEATACSLK SMALKIHELK GAQMHHLSVC
QWEVKLKLYC
1501 DGPASGTWRV VTTNVTSTHC TVDIYREVED TESQKLVIHS
ASPSASPLHG
1551 VALDNPYQPL SVIDLKRCSA RNNRTTYCYD FPLAFETALQ
KSWQSNSSV
1601 SEGSENSRSY VKATELVFAE KHGSWGTPII SMERPAGLND
IGMVAWILEM
1651 STPEFPNGRQ IIVIANDITF RAGSFGPRED AFFEAVTNLA
CERKLPLIYL
1701 AANSGARIGI ADEVKSCFRV GWSDEGSPER GFQYIYLTDE
DYARISLSVI
1751 AHKLQLDNKE IRWIIDSVVG KEDGLGVENI HGSAAIASAY
SRAYEETFTL
1801 TSVTGRVTVGI GAYLARLGIR CIQRLDQPII LTGFSALNKL
LGREVSSSH
1851 QLGGPKIMAT NGVVHLTVSD DLEGVSNILR WLSYVPANIG
GPLPITKPLD
1901 PPDRPVAYIP ENTCDPRAAI RGVDDSQGW LGGMFDKDSF
VETFEWAKT
1951 VVTGRAKLGG IPVGVIAVET QTMMQLIPAD PGQLDSHERS
VPRAGQVWFP
2001 DSATKTAQAL LDFNREGLPL FILANWRGFS GGQRDLFEGI
LQAGSTIVEN
2051 LRTYNQPAFV YIPMAGELRG GAWVVVDSKI NPDRIECYAE
RTAKGNVLEP
2101 QGLIEIKFRS EELQDCMGRD DPGLINLKAK LQAKLNGS
LTDVESLQKS
2151 IDARTKQLLP LYTQIAIRFA ELHDTSLRMA AKGVIKKVV
WEELRSFFYR
2201 RLRRRISEVD LAKEIRGIAG DHFTHQSAVE LIKEWYLSQ
ATTGSTEWDD
2251 DDAFVAWKEN PENYKGYIQE LRAQKVSQSL SDLADSSSDL
EAFSQGLSTL
2301 LDKMDPSQRA KFIQEVKKVL G

FIGURE 11A

SORGHUM BICOLOR PLASTIDAL ACCASE SB06003090 CDNA (SEQ ID NO: 21)

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1 ATGTCGCAGC TTGGATTAGC TGCAGCTGCC TCAAAGGCAC
TGCCACTACT CCCTAATCGC
61 CAGCGAAGTC CTGCTGGGAC TACATTCTCA TCATCTGCAT
TGTCGAGGCC CTCAAACCGA
121 AGGAAAAGCC GTACCCGTTC ACTCCGTGAT GGTGGAGATG
GGGTATCAGA TGTCAAAAAG
181 CACAGCCAGT CTGTTCTGCA AGGTCTTGCT GGCATTATTG
ACCTCCCAAG CGAGGCAGCT
241 TCGGAAGTGG ACATTTTACA TGGATCTGAG GATCCTAGGG
GTCCACCAGA TTCCTATCAA
301 ATGAATGGGA TTATCAATGA AACACATAAT GGAAGACATG
CTTCAGTGTC CAAGGTTGTT
361 GAATTTTGTG CGGCACTAGG TGGCAAAACA CCAATTCACA
GTATATTAGT GGCCAATAAT
421 GGAATGGCAG CAGCAAAGTT CATGAGGAGT GTCCGGACAT
GGGCTAATGA TACTTTTGGA
481 TCTGAGAAGG CAATTCAGCT CATAGCTATG GCAACTCCGG
AAGACATGAG GATAAATGCA
541 GAGCACATTA GAATTGCTGA TCAATTTGTA GAGGTGCCTG
GTGGAACAAA CAATAATAAC
601 TACGCCAACG TTCAACTCAT AGTGGAGGTA GCAGAAAGAG
TAGGTGTTTC TGCTGTTTGG
661 CCTGGTTGGG GTCATGCTTC TGAGAATCCT GAACTGCCGG
ATGCATTGAC TGCAAAAGGA
721 ATCGTTTTCC TTGGGCCACC TGCATCATCA ATGAATGCAT
TGGGAGATAA GGTCGGTTCA
781 GCTCTCATTG CTCAAGCAGC TGGGGTCCCA ACTCTTGCTT
GGAGTGGATC ACATGTTGAA
841 GTGCCATTAG AGTGCTGCTT AGACGCTATA CCTGAGGAGA
TGTATAGAAA AGCTTGTGTT
901 ACTACCACAG AGGAAGCAGT TGCAAGTTGT CAAGTGATTG
GTTATCCTGC CATGATTAAG
961 GCATCCTGGG GAGGTGGTGG TAAAGGAATA AGAAAGGTTT
ATAATGATGA TGAGGTTAGA
1021 GCACTGTTTA AGCAAGTACA AGGTGAAGTC CCTGGCTCCC
CAATATTTAT CATGAGGCTT
1081 GCAGCCCAGA GTCGGCATCT TGAAGTTCAG TTGCTTTGTG
ATCAATATGG CAATGTAGCA
1141 GCACTTCACA GTCGTGATTG CAGTGTGCAA CGGCGACACC
AGAAGATTAT TGAAGAAGGC
1201 CCAGTTACTG TTGCTCCTCG TGAGACAGTT AAAGCACTTG
AGCAGGCAGC AAGGAGGCTT
1261 GCTAAGGCTG TGGGTTATGT TGGTGCTGCT ACTGTTGAGT
ATCTTTACAG CATGGAACT
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FIGURE 11A CONTINUED

1321 GGAGAATACT ATTTTCTGGA GCTTAATCCC CGACTACAGG
TCGAGCATCC AGTCACCGAA
1381 TGGATAGCTG AAGTAAATCT GCCTGCAGCT CAAGTTGCTG
TTGGAATGGG CATACTCTT
1441 TGGCAAATTC CAGAAATCAG ACGTTTCTAT GGAATGGACT
ATGGAGGAGG GTATGATATT
1501 TGGAGGAAAA CAGCAGCTCT TGCTACACCA TTTAATTTTG
ATGAAGTAGA TTCTCAATGG
1561 CCAAAGGGCC ATTGTGTAGC AGTTAGAATT ACTAGTGAGG
ACCCTGATGA TGGTTTCAAA
1621 CCTACTGGTG GGAAAGTGAA GGAGATAACT TTTAAAGCCA
AGCCTAATGT TTGGGCCTAC
1681 TTCTCAGTAA AGTCTGGTGG AGGCATTCAT GAATTTGCTG
ATTCTCAGTT TGGACATGTT
1741 TTTGCATATG GACTCTCTAG ATCAGCAGCA ATAACAAACA
TGGCTCTTGC ATTAAAAGAG
1801 ATTCAAATTC GTGGAGAAAT TCATTCAAAT GTTGATTACA
CTGTTGACCT CTTAAACGCT
1861 TCAGACTTCA GAGAAAACAA GATTCATACT GGTGCTGG
ATACCAGAAT AGCTATGCGT
1921 GTTCAAGCTG AGAGGCCCCC ATGGTATATT TCAGTGCTTG
GAGGTGCTTT ATACAAAACA
1981 GTAACCACCA ATGCAGCCAC TGTTTCTGAC TATGTTAGTT
ATCTCACCAA GGGCCAGATT
2041 CCACCAAAGC ATATATCCCT TGTCAATTCT ACAGTTAGCT
TGAATATAGA AGGGAGCAAA
2101 TACACAATTG AACTGTAAAG GACTGGACAT GGTAGCTACA
GGTTGCGAAT GAATGAATCG
2161 ACAGTTGAAG CGAATGTACA ATCTTTATGT GATGGTGGAC
TCTTAATGCA GTTGGATGGA
2221 AACAGCCATG TAATTTATGC AGAAGAAGAA GCTGGTGGTA
CACGGCTTCA GATTGATGGA
2281 AAGACATGCT TGTTGCAGAA TGACCATGAT CCATCAAAGT
TATTAGCTGA GACACCCTGC
2341 AACTTCTTC GTTCTTGGT TGCTGATGGT GCTCATGTTG
ATGCGGATGT ACCATACGCT
2401 GAAGTTGAGG TTATGAAGAT GTGCATGCCT CTCCTGTCAC
CTGCTTCTGG TGTCGTTTCA
2461 TGTATGATGT CTGAGGGCCA GCGTTGCAG GCTGGTGATC
TTATAGCAAG GCTGGATCTT
2521 GATGACCCTT CTGCTGTGAA AAGGGCTGAA CCATTTGATG
GAATATTTCC ACAAATGGCG
2581 CTCCCTGTTG CTGCCTCTAG TCAAGTACAC AAAAGATATG
CTGCAAGTTT GAATGCTGCT

FIGURE 11A CONTINUED

2641 CGAATGGTTC TTGCAGGATA TGAGCACAAT ATCAATGAAG
TCGTTCAAGA TTTGATATGC
2701 TGCCTGGACA ACCCTGAGCT TCCTTTCCTA CAGTGGGATG
AACTTATGTC TGTTCTAGCA
2761 ACGAGGCTTC CAAGAAATCT CAAGAGTGAG TTAGAGGATA
AATACAAGGA ATACAAGTTG
2821 AATTTTTTACC GTGGAACAAA CGTGGACTTC CCTTCCAAGT
TGCTAAGAGA CATCATTGAG
2881 GAAAATCTTG CATATGGTTC AGAGAAGGAA AAGGCTACAA
ATGAGAGGCT TGTTGAGCCT
2941 CTTACGAACC TACTGAAGTC ATATGAGGGT GGGAGAGAAA
GTCATGCACA TTTTATTGCC
3001 AAGTCCCTTT TCGAGGAGTA TCTTATGGTG GAAGAACTTT
TCAGTGATGG AATTCAGTCT
3061 GACGTTATTG AAACCTTGCG TCATCAGCAC AGTAAAGACC
TGCAGAAGGT TGTAAGACATT
3121 GTGTTGTCTC ACCAGGGTGT GAGAAACAAA GCTAAGCTTG
TAACAGCACT CATGGAAAAG
3181 CTGGTTTATC CAAATCCGGT TGCTTACAGG GATCTGTTGG
TTCGCTTTTC TTCCCTCAAT
3241 CATAAAAGAT ATTATAAGTT GGCCCTTAAA GCAAGTGAAC
TTCTTGAACA AACCAAACTA
3301 AGTGAAGTCC GTGCAAGCAT TGCAAGAAGC CTTTCAGATC
TGGGGATGCA TAAGGGAGAC
3361 ATGACTATTA AGGATAGCAT GGAAGATTTA GTCTCTGCCC
CATTGCCTGT TGAAGATGCT
3421 CTTATTTCTT TGTTTGATTA CAGCGATGCA ACTGTTTCTG
AGAAAGTGAT TGAGACATAC
3481 ATATCACGAT TGTACCAGCC TCATCTTGTG AAGGATAGCA
TCCAAATGAA ATTCAGGAA
3541 TATGGTGCTA TTGCTTTTTG GGAATTTTCT GAAGGGCATG
TTGATACTTC AAATGGACAT
3601 GGGACTATTC TTGGTGGGAA GAGATGGGGT TCCATGGTCG
TCCTCAAATC ACTTGAATCT
3661 GCATCAACAG CCATTGTGGC TGCATTAAAG GATTTCAGCAC
AGTACAACAG CTCTGAGGGC
3721 AACACGATGC ACATTGCATT ATTGAGTGCT GAAAATGAAA
GTAATATGAG TGGAACAAGC
3781 AGTGATGATC AAGCTCAACA TAGGATGGAA AAGCTTACCA
AGATACTGAA GGATACTAAT
3841 GTTGCAAGTG ATCTCCGAGC TGCTGGTTTG AAGGTTATAA
GTTGCATTGT TCAAAGAGAT
3901 GAAGCTCGCA TGCCAATGCG CCACACATTC CTCTGGTTGG
ATGAAAAGAG TTGTTATGAA

FIGURE 11A CONTINUED

3961 GAAGAGCAAA TTCTCCGGCA TGTGGAGCCT CCCCTCTCTG
CACTTCTTGA ATTGGATAAG
4021 TTGAAAAGTGA AAGGATACAA TGAAATGAAG TATACTCCGT
CACGTGATCG TCAATGGCAT
4081 ATCTACACAC TAAGAAATAC TGAAAACCCC AAAATGTTGC
ATAGGGTATT TTTCCGAACT
4141 ATTGTCAGGC AACCCAATGC AGGCAACAAG TTTACATCAG
CTCAGGTCAG TGATACTGAA
4201 GTAGGAGGTC CTGAAGATTC TCTGTCATTC ACATCGAATA
GCATCCTAAG ATCATTGATG
4261 ACTGCTATAG AAGAATTAGA GCTTCATGCG ATTAGGACAG
GTCATTCTCA CATGTATTTG
4321 TGCATACTGA AAGAGCAAAA GCTTCTTGAT CTCATTCCAT
TTTCAGGGAG TACAATTGTT
4381 GATGTTGGCC AAGATGAAGC TACTGCTTGT TCACTTTTAA
AATCAATGGC TTTGAAGATA
4441 CATGACCTTG TTGGTGCAAG GATGCATCAT CTGTCTGTAT
GCCAGTGGGA GGTGAAACTC
4501 AAGTTGGATT GTGATGGGCC TGCAAGTGGT ACCTGGAGAG
TTGTGACTAC AAATGTTACT
4561 AGTCACACCT GCACCATTGA TATCTACCGA GAAGTGGAAG
ATACAGAATC GCAGAAGTTA
4621 GTATACCATT CAACCACTTC GGCAGCTGGT CCTGGTCCGT
TGCATGGTGT TGCACTGAAT
4681 AATCCATATC AACCTTTAAG TGTGATTGAT CTAAAGCGCT
GCTCTGCTAG GAACAACAGA
4741 ACAACATATT GCTACGATTT TCCGCTGGCA TTTGAAACTG
CACTGCAGAA GTCATGGCAG
4801 TCCAACGGCT CTAGTGTTTC TGTAGGCAGT GGAAATAGTA
AATCCTACGT GAAGGCAACT
4861 GAGCTGGTGT TTGCTGAAAA ACATGGGTCC TGGGGCACTC
CTATAGTTCC CATGGAACGT
4921 CCTGCTGGGC TCAATGACAT TGGTATGGTC GCTTGATCT
TGGAGATGTC AACACCTGAA
4981 TTTCCCAATG GCAGGCAGAT TATTGTTGTA GCAAATGATA
TTACTTTTCA AGCTGGATCA
5041 TTCGGCCCAA GGGAAGATGC ATTTTTTGAA GCTGTCACCA
ACCTGGCTTG TGAAAGGAAA
5101 CTTCCCCTTA TATACTTGGC AGCAAACCTCT GGTGCTAGGA
TTGGCATAGC TGATGAAGTA
5161 AAATCTTGCT TCCGTGTTGG GTGGTCTGAC GAAGGCAGCC
CTGAGCGAGG GTTTCAGTAC
5221 ATCTATCTGA CTGAAGAAGA CTATGCCCGT ATTAGCTCTT
CTGTTATAGC ACATAAGCTG

FIGURE 11A CONTINUED

5281 CAGCTAGATA GCGGTGAAAT TAGGTGGATT ATTGACTCTG
TTGTGGGCAA GGAGGATGGG
5341 CTTGGTGTTG AGAACATACA TGGAAGTGCT GCTATCGCCA
GTGCTTATTC TAGGGCATAT
5401 GAGGAGACAT TTACACTTAC ATTTGTGACC GGACGGACTG
TAGGAATAGG AGCTTATCTT
5461 GCTAGACTTG GTATACGGTG CATAACGCGT CTTGACCAGC
CGATTATTTT AACAGGGTTT
5521 TCTGCCCTGA ACAAGCTCCT TGGGCGGGAA GTGTACAGCT
CCCACATGCA GCTTGGTGGT
5581 CCTAAGATCA TGGCGACCAA TGGTGTTGTC CACCTGACTG
TTCCAGATGA CCTGAAGGT
5641 GTTTCCAATA TATTGAGGTG GCTCAGCTAT GTTCCTGCAA
ACATTGGTGG ACCTCTTCCT
5701 ATTACCAAAC CTTTGGACCC TCCAGACAGA CCTGTTGCAT
ACATCCCTGA GAACACATGC
5761 GATCCACGTG CAGCCATCCG TGGTGTAGAT GACAGCCAAG
GGAAATGGTT GGGTGGTATG
5821 TTTGACAAAG ACAGCTTTGT GGAGACATTT GAAGGATGGG
CAAAAACAGT GGTTACTGGC
5881 AGAGCAAAGC TTGGAGGAAT TCCTGTGGGT GTCATAGCTG
TGGAGACACA GACCATGATG
5941 CAGCTTGTC CTGCTGATCC AGGTCAGCTT GATTCCCATG
AGCGATCCGT TCCTCGGGCT
6001 GGACAAGTGT GGTTCCCAGA TTCTGCAACC AAGACAGCTC
AGGCATTATT AGACTTCAAC
6061 CGTGAAGGAT TGCCTCTGTT TATCCTGGCT AACTGGAGAG
GTTTCTCTGG TGGACAGAGA
6121 GATCTCTTTG AAGGAATTCT TCAGGCTGGG TCAACAATTG
TCGAGAACCT TAGGACATAT
6181 AATCAGCCTG CGTTTGTCTA CATTCCTATG GCTGGAGAGC
TTCGTGGAGG AGCTTGGGTT
6241 GTGGTCGATA GCAAATAAA TCCAGACCGC ATTGAGTGTT
ATGCTGAGAG GACTGCCAAA
6301 GGTAATGTTT TCGAACCTCA AGGGTTAATT GAAATCAAGT
TCAGGTCAGA GGAACCTCAA
6361 GACTGTATGG GTAGGCTTGA CCCCAGATTG ATAAATCTGA
AAGCAAACT CCAAGATGTA
6421 AAGCATGGAA ATGGAAGTCT ACCAGACATA GAATCCCTTC
AGAAGAGTAT AGAAGCACGT
6481 ACGAAACAGT TGCTGCCTTT ATATACCCAG ATTGCAATAC
GGTTTGCTGA ATTGCATGAT
6541 ACTTCCCTAA GAATGGCAGC TAAAGGCGTG ATTAAGAAAG
TTGTAGACTG GGAAGAATCA

FIGURE 11A CONTINUED

6601 CGCTCTTTCT TCTATAAAAG GCTACGGAGA AGGATCTCTG
AAGATGTTCT TGCAAAAAGAA
6661 ATAAGACATA TAGTCGGTGA CAACTTCACT CACCAATCAG
CAATGGAGCT CATCAAGGAA
6721 TGGTACCTGG CTTCTCCAGC CACAGCAGGA AGCACTGGAT
GGGATGACGA TGATGCATTT
6781 GTTGCCTGGA AGGACAGTCC TGAAAACACTAC AATGGATATA
TCCAAGAGCT AAGGGCTCAA
6841 AAAGTGTCTC AGTCGCTCTC TGATCTCACT GACTCCAGTT
CAGATCTACA AGCATTCTCG
6901 CAGGGTCTTT CTACGCTATT AGATAAGATG GATCCCTCTC
AAAGAGCGAA GTTTGTTCAG
6961 GAAGTCAAGA AGGTCCTTGG TTGA

FIGURE 11B
***SORGHUM BICOLOR* PLASTIDAL ACCASE SB06003090 TRANSLATED**
PROTEIN (SEQ ID NO: 22)

1 MSQLGLAAAA SKALPLLPNR QRSPAGTTFS SSALSRPSNR
RKSRTSLRD
51 GGDGVSDVKK HSQSVRQGLA GIIDLPSSEA SEVDISHGSE
DPRGPPDSYQ
101 MNGIINETHN GRHASVSKVV EFCAALGGKT PIHSILVANN
GMAAAKFMRS
151 VRTWANDTFG SEKAIQLIAM ATPEDMRINA EHIRIADQFV
EVPGGTNNNN
201 YANVQLIVEV AERVGVS AVW PGWGHASENP ELPDALTAKG
IVFLGPPASS
251 MNALGDKVGS ALIAQAAGVP TLAWSGSHVE VPLECCLDAI
PEEMYRKACV
301 TTTEEAVASC QVIGYPAMIK ASWGGGGKGI RKVHNDDEV
ALFKQVQGEV
351 PGSPIFIMRL AAQSRHLEVQ LLCDQYGNVA ALHSRDCSVQ
RRHQKIIIEG
401 PVTVAPRETV KALEQAARRL AKAVGYVGAA TVEYLYSMET
GEYYFLELNP
451 RLQVEHPVTE WIAEVNLPAA QVAVGMGIPL WQIPEIRRFY
GMDYGGGYDI
501 WRKTAALATP FNFDEVDSQW PKGHCVAVRI TSEDPDDGFK
PTGGKVKEIT
551 FKA KPNVWAY FSVKSGGGIH EFADSQFGHV FAYGLSRSA
ITNMALALKE
601 IQIRGEIHSN VDYTVDLLNA SDFRENKIHT GWLDTRIAMR
VQAERPPWYI
651 SVVGGALYKT VTTNAATVSD YVSYLTGQI PPKHISLVNS
TVSLNIEGSK
701 YTIETVRTGH GSYRLRMNES TVEANVQSLC DGGLLMQLDG
NSHVIYAE
751 AGGTRLQIDG KTCLLQNDHD PSKLLAETPC KLLRFLVADG
AHVDADVPYA
801 EVEVMKMCMP LLSPASGVVH CMMSEGQALQ AGDLIARLDL
DDPSAVKRAE
851 PFDGIFPQMA LPVAASSQVH KRYAASLNAA RMVLAGYEHN
INEVVQDLIC
901 CLDNPELPFL QWDELMSVLA TRLPRNLKSE LEDKYKEYKL
NFYRGKNVDF
951 PSKLLRDIIE ENLAYGSEKE KATNERLVEP LTNLLKSYEG
GRESHAFIA
1001 KSLFEEYLMV EELFSDGIQS DVIETLRHQH SKDLQKVVDI
VLSHQGVNRK
1051 AKLVTALMEK LVYPNPVAYR DLLVRFSSLN HKRYYKLALK
ASELLEQTKL
1101 SELRASIARS LSDLGMHKGD MTIKDSMEDL VSAPLPVEDA
LISLFDYSDA
1151 TVQQKVIETY ISRLYQPHLV KDSIQMKFKE YGAIAFWEFS
EGHVDTSNGH

FIGURE 11B CONTINUED

1201 GTILGGKRWG SMVVLKSLES ASTAIVAALK DSAQYNSSEG
NTMHIALLSA
1251 ENESNMSGTS SDDQAQHRME KLTKILKDTN VASDLRAAGL
KVISCIVQRD
1301 EARMPPMRHTF LWLDEKSCYE EEQILRHVEP PLSALLELDK
LKVKGYNEMK
1351 YTPSRDRQWH IYTLRNTENP KMLHRVFFRT IVRQPNAGNK
FTSAQVSDTE
1401 VGGPEDSLSF TSNSILRSLM TAIEEELHA IRTGHSHMYL
CILKEQKLLD
1451 LIPFSGSTIV DVGQDEATAC SLLKSMALKI HDLVGARMHH
LSVCQWEVKL
1501 KLDCDGPASG TWRVVTTNVT SHTCTIDIYR EVEDTESQKL
VYHSTTSAAG
1551 PGPLHGVALN NPYQPLSVID LKRCSARNNR TTYCYDFPLA
FETALQKSWQ
1601 SNGSSVSVGS GNSKSYVKAT ELVFAEKHGS WGTPIVPMER
PAGLNDIGMV
1651 AWILEMSTPE FPNGRQIIVV ANDITFRAGS FGPREDAFFE
AVTNLACERK
1701 LPLIYLAANS GARIGIADEV KSCFRVGWSD EGSPERGFQY
IYLTEEDYAR
1751 ISSSVIAHKL QLDSEIRWI IDSVVGKEDG LGVENIHGSA
AIASAYSRAY
1801 EETFTLTFTV GRTVGIGAYL ARLGIRCIQR LDQPIILTGF
SALNKLLGRE
1851 VYSSHMQLGG PKIMATNGVV HLTVPDDLEG VSNILRWLSY
VPANIGGPLP
1901 ITKPLDPPDR PVAYIPENTC DPRAAIRGVD DSQGKWLGGM
FDKDSFVETF
1951 EGWAKTVVTG RAKLGGIPVG VIAVETQTMM QLVPADPGQL
DSHERSVRA
2001 GQVWFPDSAT KTAQALLDFN REGLPLFILA NWRGFSGGQR
DLFEGILQAG
2051 STIVENLRTY NQPAFVYIPM AGELRGGAWV VVDSKINPDR
IECYAERTAK
2101 GNVLEPQGLI EIKFRSEELQ DCMGRLDPEL INLKAKLQDV
KHGNGSLPDI
2151 ESLQKSIEAR TKQLLPLYTQ IAIRFAELHD TSLRMAAKGV
IKKVVDWEES
2201 RSFFYKRLRR RISEDVLAKE IRHIVGDNFT HQSAMELIKE
WYLASPATAG
2251 STGWDDDDAF VAWKDSPENY NGYIQELRAQ KVSQSLSDLT
DSSSDLQAFS
2301 QGLSTLLDKM DPSQRAKFVQ EVKKVLG

FIGURE 12
***BRACHYPODIUM DISTACHYON* PLASTIDAL ACCASE BRADI5G03860**
TRANSLATED PROTEIN (PHYTOZOME) (SEQ ID NO: 23)

1 MGSTHLPIVG FNASTTPSLS TLRQLNSAGT AFQSSAPSRT
SPKKKSRRVQ
51 SIREDDGDDGV SDPAGHNKSI RQGIAGIIDL PKEGTSAPEV
DISHGSEDPR
101 GSYQMNGILN EAHNGRHASL SKVVDFCMAL GGKTPIHSVL
VANNGMAAAK
151 FMRSIRTWAN DTFGSEKAIQ LIAMATPEDM RINAEHIRIA
DQFVEVPGGT
201 NNNNYANVQL IVEIAERTGV SAVWPGWGHA SENPELPDAL
TAKGIVFLGP
251 PASSMNALGD KVGSAIAQA AGVPTLPWSG SQVEIPLLELC
LDSIPEEMYR
301 KACVTTAEEA VSSCQMIGYP AMIKASWGGG GKGIRKVNND
DEVRALFKQV
351 QGEVPGSPIF IMRLASQSRH LEVQLLCDQY GNVAALHSRD
CSVQRRHQKI
401 IIEGPVTVAP RETVKELEQA ARRLAKAVGY VGAATVEYLY
SMDTGEYYFL
451 ELNPRLQVEH PVTEWIAEVN LPAAQVAVGM GIPLWQVPEI
RRFYGMDHGG
501 GYDIWRKTAA LATPFNFDEV DSQWPKGHCV AVRITSEDPD
DGFKPTGGKV
551 KEISFKSKPN VWAYFSVKSG GGIHEFADSQ FGHVFAYGVS
RSAAITSMAL
601 ALKEIQIRGE IHSNVDYTV D LLNASDFREN KIHTGWLDR
IAMRVQAERP
651 PWYISVVGGA LYKTITTNTA TVSDYVSYLI KGQIPPKHIS
LVNSTVSLNI
701 EESKYAIETI RSGHGSYRLR MNGSVIEANV QTLCDGGLLM
QLDGNSHVIY
751 AEEEAGGTRL LIDGKTCLLQ NDHDP S RLLA ETPCKLLRFL
VADGAHV DAD
801 VPYAEVEVMK MCMPLLS PAA GVIHVLLSEG QAMQAGDLIA
RLDLDDPSAV
851 KRAEPFDGFF PEMSLPIAAS CQVHKRCAAS LNAARMVLG
YEH PINKVVQ
901 DLVCCLDTPE LPFLQWEELM SVLATRLPRD LKSELEGKYS
DYKLTVDH GK
951 NKDFPTKTLR GIIEENLACC SEKEKATNER LVEPLMSLLK
SYEGGRENHA
1001 HFIVKSLFEE YLSVEELFSD DIQSDVIERL RLQHSKDLQK
VVDIVLSHQG
1051 VRNKT KLILT LMEKLVYPNP SAYRDQLIRF SSLNHKRYK
LALKASELLE
1101 QTKLGELRTS IARSLSELEM FTEERVGLSL QERTLAIDES
MGDLVTAPLP

FIGURE 12 CONTINUED

1151 VEDALISLFD CTDQTLQQRV IETYISRLYQ PHLVKDSVQL
KYKESGVIGI
1201 WEFAEEHANI RNGQKPTLPE KRWGAMVILK SLESVSTAIG
VALKDASHYS
1251 SSEGNIMHIA LLGDDNQINK SEDSGDNDQA QDRIDKLSVI
LKQNIVTADL
1301 RAAGVKVSC IVQRDGARMP MRRTFLLSDE KLCFEEEPIL
RHVEPPLSAL
1351 LELDKLKVKG YNEMKYTPSR DRQWHIYTLR NTENPKMLHR
VFFRTLVRQP
1401 TAGNKFTSGR TSDIEAGHAE ESLSFTSSSI LRSLMTAIEE
LELHAIRTGH
1451 SHMYLCILRE QKLLDLVPVS GSTVVDVGQD EATACSLLE
MALKIHELVG
1501 ARMHHL SVCQ WEVKKLSD GPASGTWRV TTNVTSHTCT
VDIYREAEDT
1551 EAQKL VYHSA TSLSAPLHGV ALNNPYQPLS VIDLKRC SAR
NNRTTYCYDF
1601 PLAFETAVRK SWYNINTENK QCYVKATELV FADKNGSWG
T PLIPMDR PAG
1651 LNDIAMVAWI LDMSTPEFPN GRQIIVIAN ITFRAGSFG
P REDAFFESVT
1701 NLACERKLPL IYLAANS GAR IGIAD EVKSC FRVGWSDDG
S PERGFQYIYL
1751 TEEDYARISS SVIAHKTQLT SGESRWVIDS VVGKEDGLGV
ENIHGSAAIA
1801 SAYSRAYKET FTLTFVTGRT VGIGAYLARL GIRCIQRTDQ
P II LTGFSAL
1851 NKLLGREVYS SHMQLGGPKI MATNGVVHLT VPDDLEGVSN
I LRWLSFVPA
1901 KIGGPLPITK PLDPPDRPVE YVPENACDPR AAISGIEDSH
G KWLGGMFDK
1951 DSFVETFE GW AKTVVTGRAK LGGIPVGVIA VETQTMMQLI
P ADPGQLDSH
2001 ERSVPRAGQV WFPDSATKTA QALLDFNREG LPLFILANWR
G FS GGQRDLF
2051 EGILQAGSTI VENLR TYNQP AFVYIPKAAE LRGGAWVVVD
S KINPDRIEC
2101 YAERTAKGNV LEPQGLIEIK FRSEELQDCM GRDPPELINL
K AKLQAAKHE
2151 NGTLPDVESL QKSIEARKKQ LLPLYTQIAI RFAELHDTSL
R MAAGVVIK
2201 VVDWEDSR SF FYKRLQRRIS EDVIAKEIRG VTGEQF SHQS
A LE LIKKWYL
2251 ASQVAE VGNT EWDDDDAFVA WKDNPENYKA YIKELRAQKV
S QVLLDLGDS
2301 SSDLQALPLG LSMLLDKMDP SRRADFVEEI RKVLG

FIGURE 13A

cDNA sequence of *Zea mays* plastidal ACCase NC050105.1 (SEQ ID NO: 950)

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1 ATGTCGCAGC TTGGATTAGC TGCAACTGCC TCGAAGGCCT
TGCCACTACT CCCTAATCGC CAGAGAAGTC CAGCTGGGAC
81 TACATTTCCA TCATCTGCAT TGCCGAGGCC CTCAAACCGA
AGGAAAAGCC ATACTCGTTC ACTTCGTGAT GGTGGAAATG
161 AGGTATCAGA TGCCAAAAAG CACAGCCAGT CAGTTCGTCA
AGGTACTGTC AATATCTTAC GTTACAAGCT AAATTTTTGC
241 TTCAAAATAA TATATGGAGT TCTTTCTTGG CTCATATTGT
TTATTTGTTT TAACATTGTA ATGTTTGAAG CCTCATTCTA
321 GGTATCAATG TGGATGTGCT CACTACTCAG TTTCAAATGT
TTGTCTGCAT GTAGGTCTTG CTGGCATTAT CGACATCCCA
401 AGTGACGCAG TTTCGGAAGT CGATATTTCA CAGTAAGCAC
TGTAATATTG TGTATTATAT GTTTGTTTTG GAGAAAGAAA
481 ATTTTCTGCA GCTTATTTAT ACTAGTTTCC CTAATAATGA
AATGCTGTCT TAGTTTTCCT AGTGCTCTAT ACACAATCTT
561 TCACAGTAAA TGCTGCAAAA TATGTGATGT AACTGTTGCA
ACACAGCCAA GAACCTGCTT CTGTACCTGC TATTTAGAGC
641 ATAATGATAC TTTGCTCACT TATATGATGT GGTTATAACT
CATGTGGAAG AATTAGTAGC AGTATTGCTG TACAATGGTC
721 ACTTATTATG GAACCATGTC TGCATACAAA TTTTCTGACT
TCTGTTGCTA CAAATGCCTA AGTTCTTTTT TAAAAAAAAT
801 TAAATGCTTG ACCTAAATTG GACATATATG ATAGATGCAA
AGCTCATTTG GACTTTGTTG ATTTATGACA ATCATAACATA
881 TTGTTAGTGT TGTGAACACA ATGGTAATCC TTTCTTTTG
CCTTTTTTCCA GTGGACCTAA GGATCCTAGG GGGCCAACAG
961 ATTCTATCA AATGAATGGG ATTATCAATG AAACACATAA
TGGAAGACAT GCCTCAGGGT CCATGGTTGT TGAATTTTGT
1041 GCAGCACTAG GTGGCAAAAC ACCAATTCAC AGTATATTAG
TGGCCAACAA TGGAATGGCG GCAACAAAGT TCATGAGGAG
1121 TGTCCGTACA TGGGCTAATG ATACTTTTGG ATCTGAGAAG
GCAATTCATC TCATAGCTAT GGCAACTCCG GAAGACATGA
1201 GGATAAATGC AGAACACATC AGACTTGCTG ATCAATTCGT
AGAGGTGCCT GGTGGAACAA ACAATAATAA CTATGCCAAC
1281 GTTCAACTCA TAGTGGAGGT TAGCACTACT AATCTGTTAG
TTTACTATTG ATCGCCTCTT TCCTTTATTT CTTCTATAAT
1361 CATTGGCATA TTTAGCTAGG GGGTGTGTTGA GATTGCTCTA
GGTTCAGCT TCAGTGTAAG GCTGTAGTTT ATAATTTAAA
1441 TTTATTTTTT TTAAATATTT TAATCTAAAT AATAAACAAA
ATAACTTATC TAAATGTCTT CTAAAGGTTT ACAACTTCAA
1521 CTTCATGATT TTCTAAAGCT CTAATGACT TGCTTCACCA
ACTTTTCCAA ATTTTAAAG CTGAAGCAGT CCCAAACAGG
1601 GCCTTAAAGTA GAGAAGCTTA TATTTGTCCT TTGCTATTGT
GGAAGTCCAA TTGTTACCAT TAACTACGAA ATATTGCAGA
```

FIGURE 13A CONTINUED

1681 TAGCAGAAAAG AGTAGGTGTT TCTGCTGTTT GGCCTGGTTG
GGGTCATGCT TCTGAGAATC CTGAGCTGCC GGATGCATTG
1761 ACCGCAAAAAG GAATCGTTTT TCTTGGGCCA CCAGCAACAT
CAATGAATGC ATTGGGAGAT AAGGTTGGTT CAGCTCTCAT
1841 TGCTCAAGCA GCCGGGGTCC CAACTCTTGC TTGGAGTGGA
TCGCATGTGA GTCTCACTCT CTTTCATTAC TATCTGCTAG
1921 TCTCGTTGCT CTATCTTTCA TATTCTAATG AACTACATT
TAGGTTGAAG TTCCATTAGA GTGCTGCTTA GACGCGATAC
2001 CTGAGGAGAT GTATAGAAAA GCTTGTGTTA CTACCACAGA
GGAGGCAGTT GCAAGTTGTC AAGTGGTTGG TTATCCTGCC
2081 ATGATTAAGG CATCCTGGGG AGGTGGTGGT AAAGGAATAA
GAAAGGTGAA CTCTCTGTGA ACTGTGCACA TTATGGAGTT
2161 TGGTGTGGGG AGCTAACTTT CCCTTTTTGA TATGATTAAA
ATCAATTCCC CTGGTAGGTT CATAATGATG ATGAGGTTAG
2241 AGCGCTGTTT AAGCAAGTAC AAGGTGAAGT CCCTGGCTCC
CCAATATTTA TCATGAGGCT TGCATCCCAG GTTAGTTTTT
2321 TTTCTTTCTT TCTGGAATTT ATAATCCATC CCTTTTTGTT
CTTTTAAAGT TATCCTTGTA TTTTCTGGAA CATCTGATAC
2401 GCTATTGAAA AATGCACTAA TGATCATCAT GTTTGGAGAT
TAACATATTT ATGAAATATT AATTGATGGG AGTTCTTGAA
2481 ACAGATACGG TTGAGCCGAT ATCGTTCTAT TTTTATAATT
TAGAAATCAC TGTTTTTGAA AAGTTACATT TTCAGGAGCC
2561 AGACTAAGAG TCAGTTTGGC AGAGCTCACA GAGCAGCTTC
TAGGTTGAAT CCAGGAGAAG TTTTGCCAAA CTGTTTTTTA
2641 CTGAGAACTG ATTCTTTTTT TGAAATGAAC TAGGAGGCTG
GGAGCTGAAA GGAGTAGCTT CTCCTGATTC ACTCCACACA
2721 TAGAATCAGA CTCAGAGAAA TCAATGTCAG TCAGAGAATC
ACTTCACAGT GAATCAGCTT CCACAGAGAA TCTGTAGGAG
2801 CTCTGCCAAA CTATCCCTAA GCTTTTCTAA GCATTGAGTG
GCATGTTATA CATGGACCAT TTGTGTCAAT TTACAGTCGG
2881 AATCATGGAA AGGTTGCGAT AATGGATGGA TAGAAACAAC
ACAGCTTGTT TCTCAACACT TGTGTGGAGA AGATTTTTAC
2961 CCTTTTTCTA AAATTAGGGG GCGTTTGGTA GAGCTCCAC
AACTCCGCTC CCAGCGAGAA TCACTCTTGC CGAGCCAAAC
3041 GATAAAAAAC TGAACACTT CATGTTGGGA GTGGAGTGAA
TCTAGTCTCT ACTTTGTACT AGAAAGTGGG AGTCAAAAAA
3121 ATCTGCTTCC CACCACTCCC AATCTGCTCC CCACTCTTTA
ACCCCTCAGG AATCACTTCA CAGCCTATTT GTCAAACAAT
3201 TTTCGTCAAA TAGATTCACT TCCAGTAGAG AATCACTCAA
AATCACTCTA TTAGAAAATC AGCTCTCGGA GCTAGAGAAT
3281 CATGGCGCAG ATCTCTACCA AACGAGCCCT TACTTTTTGG
ACTAAATTGT ATAGGTTTCA ATATTCTCAC TATTATTGAA
3361 CTGTGCTGTA TCAAACAGCC AAGACATGTT TCATTCTTTA
CACCTTTATT TTGAAGATGG AAGCCTGAAA ATTGTGCTCT

FIGURE 13A CONTINUED

3441 GTTATCTGTA GTTGACATT ATATTTTATT TTAAATCTTA
TTCTCTATTG TAGAGTCGGC ATCTTGAAGT TCAGTTGCTT
3521 TGTGATCAAT ATGGCAATGT AGCAGCACTT CACAGTCGTG
ATTGCAGTGT ACAACGGCGA CACCAGAAGG TCTGCCCCCA
3601 CCCACCCAGC CATAAACACC CAATTGTAAA ACCATGCATT
TTATTATGTG TTCTATTTCC TCAATTTTAG TTCCATTAC
3681 ATTTTTCTAC AACAGATTAT TGAAGAAGGC CCAGTTACTG
TTGCTCCTCG TGAAACAGTT AAAGCACTTG AGCAGGCAGC
3761 AAGGAGGCTT GCTAAGGCTG TGGGTTATGT TGGTGCGGCT
ACTGTTGAGT ATCTTTACAG CATGGAGACT GGAGAATACT
3841 ATTTTCTGGA GCTTAATCCC CGACTACAGG TTTGCTACTT
GAACATCATT GACTAATAAAA CCTGCTGCGG AATCCTTCAA
3921 AATTTTAAAT TATCTCCATG CAGGTTGAGC ATCCAGTCAC
TGAGTGGATA GCTGAAGTAA ATCTGCCTGC AGCTCAAGTT
4001 GCAGTTGGAA TGGGCATACC TCTTTGGCAG ATTCCAGGTA
ATTATCAATT TACCAACTTA TTCTATGTTG TCTCAGCATA
4081 TGTTGGTGCA GCATAGCTTG CTCCCAAGTC TAGGTACAAG
GAGGAGGGTT GCGTTAGGCG TGGCGAGCCA GCTATAAAAA
4161 CTTAGCCACT CAAAATGGAG GTGAAACCCA ATAGAAAACC
GTTGGAGCGT AACCTCTTA GTGACACGCC ATATCGGAAA
4241 CCGGTATGGT GTTAAATGGG CAAGGGCGGG GACGCCACCC
CCTTGGTGGC GCGTCGTGTC GTGATCTGGA TGCTGTGTCA
4321 AGTGAGCAAG GATCGGGTCG TCGTTTCCTT AGTGGCACGC
TACATCAGCG CCCGAGTGTA GTGACAAATG TGCAAGGGTC
4401 TTCGCATCTG TCTCAATGGG TGCGAGGGGT AAGGAAGCTA
GTTGAGTCGA CTAGGATCCG TGTTGGTAGT TGGAACGTAG
4481 GGTCCCTTAC ATGGTTTTTA AAGCGGTAAG GCGGTCCAAG
GCGTTGGAGC ACCGCCTGGA CGCCTAGGCG GCGCCTAGGC
4561 GAGGTAGGCG GGCAAGGCGC CTAGGCGTTA GACCACCGCC
CGGACGCCTT AAGAACAGAG GTCCCTTACA AGTAAGCTAA
4641 GAGAGTTAGT CGATGGAGCG AGCAGGAGGG GTGTTAGTAT
CCTATGTGTC CAGGAGACAA AATGGAAGGG GAAAAAGCG
4721 AAGGAGGTGG AGAACACCAG TTTCAAACCTT TGGTACTCAG
GAACAGTGTC AAACAAAAAT GGAGTAGGTA TCCTGATTGA
4801 TAAGACCCTC AAGGATGGAG TGGTGGACGT CAAAATACAG
GGAGATAGGA TTATCCTAGT CAAACTAGTT TTGGGGGATG
4881 TAGTCTTGAA CATTATAAGT GCATATGCCC CTCAGGTTGG
TCTCAGCGAG AGCGAGAAGA AGTTCTGGGA AGACTTAGAT
4961 GGCATGATTA GAGCAGTACC CACCAATGAG AAGCTTTTCA
TAGGAGATCT CAATGTTTAT GCAGGTTCAA CAAATGCAGT
5041 TTATGAGCTG GTCATGGAG GTTTCGGGTA TGGTAGTAGG
AATCAAGGAG AGGATATTTT GGACTTTGCT ATAGCCTACA
5121 ACCTAGTGAT AGCCAACACT TTCTTCAGAA AGAGAGATTC
TCATTTGGTG ACTTTTAGCA GTGGCCATCG TTCGAGCCAG

FIGURE 13A CONTINUED

5201 ATCGACTTCG TGCTCACTAG GAGAGAAGAT AAACAAGCTT
GTTTGTATTG TAAGGTGATA CCTGGAGAGA GTGTTGTGCC
5281 CCAACATAAT CTTGTGGTGG CTGACTTTCG TTTTCGGATC
AGTACCCATA GGGATAAACA AGCAAAAATT GCGAGGACGA
5361 AGTGGTGGAA ACTCAAAGGG GAGACATCCG AAGTTTTTATG
GGAAAGAGTT TTTGTGGAGG GCGCTTGGTC CGAAGAAGAA
5441 GATGCAAAACA TGTGGGTGAA GATGGCAACT TGTATTAGGA
AGGTGGCGTC AGAGGCGTTT GGAGTGACCA AAGGGAGTAG
5521 CGGTGAACCT AAGGATACTT GGTGGTGGAC CGAGGATGTT
CAAAAGGCAG CTTACTGGAT GAGGAAAGAG TGATCACATC
5601 TCATGAGCAA AAACAAGAGG TGCTGCATAA TTTCTACTCT
AATTTGTTGG GGTATGCCCC CCCAGAGGAG GTTAACTCTG
5681 AGGTTAGAAG AGTGTCACAG AGCTCCAATA GATTTATCTG
CTCTTGAGCT TCCCTTTACA GAAGAAGAAG TTTGGGATGC
5761 TATTGCCAGT CTTCTTCAG ATAAAGCGCC TGGGCCAGAT
GGATACACAG GGAGATTCTA CAAAACCTGT TGGCCTATAC
5841 TTAAGGCAGA TTTGATGGCT GCCCTTGCTG CCCTTCACCT
TGGGAATTCT CAGAATTTGG GGCCTCTAAA CACAGCATAT
5921 ATTACTTTGA TCCCTAAGAA GGCAGAAGTC ATGTCTGCTG
GTGATTACAG GCCCATCAGC CTCATTACCA GCTTTGCAAA
6001 ACTTTCCACA AAGGTCCTTG CTAATAGGCT TGCTCCTCTT
CTCAACAAGA TGGTAGAGGC TAACCAAAGT GCTTTTGTTA
6081 GAGGCAGATC CATACTGAC AATTATATGT TGGTTCAACA
CTCAATTAAG TCCCTACACA GGAAAAAAGT GGCCAGCCTT
6161 TTTCTGAAAT TAGATTTAAC AAAGGCATTT GATTCTGTTT
CCTGGGCTTT CTTCTTGAG GTGTTGACCC ACCTTGGCTT
6241 TGGTAATAAG TGGAGGAATC TTTATCTCCA ACCTTCTGGC
CACTTCATCA ACTCAAATTT TATTAAATGG GTTTCCAGGG
6321 GAACAAATCA GACATCGCAG AGGTTTGAGG CAAGGGGACC
CCCTCTCCCC AATGCTCTTT GTCCTGGTGA TGGATGTCCT
6401 CAGTAGCCTT TTCAAAGTGG CAGAAGAAAA AGTATTGTTG
TCTAGTCTGG AAAGTGCCAT TGTGAAGTCC AGATTATCTC
6481 TATATGCAGA TGATGTAGTC CTGTTTGTCA AGACCAGGGA
GGAAGAACTA AACTGTGTCA AACTCATTCT TGACTGTTTT
6561 GGTGAAGCTT CTGGCCTAGT AGCTAATTTG CACAAGAGTT
GTGCCATCCC AATAAGATGT GAAGAGGAAT TGCTGCATGA
6641 AGGGTGTAAC ATTCTGCAAT GCACCCCTTC TTCCTTCCCT
TGCACTTACT TGGGGTTGCC TATCTCAGAT AAGAAGCTTA
6721 GCAGGAATAT TTTGATGAAT TGGGTTGACA AGATTGCGGA
TAGGCTACCA AATTGGAAAAG CTAGGCTCCT CAACCTTGCT
6801 GGAAGGACAG CCCTTGTCGA CTTTGTACTT TCAGCCATCC
TAGTTTATCT TTTCCCTGCT ATGAATGTCC CTAAGTGGGT
6881 GATTACAAA ATTGATAAAA TCAGAAAAGG ATTTGTGTGG
AGAGGGAGAA AAGAGGTAA TGGAGGCAGC TGCCTTGTGG

FIGURE 13A CONTINUED

6961 CCTGGGATTC AGTCACAAGA CCTTTGAAGT ATGGCGGGCT
TGGGATTCCT AATTTACAAC ACATGTGTTG GGCCCTCCAA
7041 ACCAAATGGT TATGGCTTCA AAAACAGAT CAGAGCAGAT
CTTGGCATGG CTTGACTATA CCCATTGAGC AACATGTTAA
7121 AGATCTTTTT GCAGCATCTC TGATTTCTTA TGTGGGAAAT
GGCTCTAATA CCTTATTCTG GACAGATAAG TGGCTAAATG
7201 GATGCTCCAT CAGAGATCTT GCTCCAGAAG TGGCGTCCAA
GGTGTCTAAA CGAGCTCTTA CCTCATTGAC AGTGAGTCAG
7281 GCTCTTGTA ACAGGCAATG GATAGCACAT ATTAACCC
CCCTTTCTT GATTGGAATT CAACAATTTT TTCTCTTATG
7361 GGATACTTTA GGGGACGTGC AGCTTTCTCA GGAGGAAGAC
CGCCATGTTT GGAGGCACGA GGCATCAGGG CTGTTCTCTT
7441 CTAAATCCTG CTACAAAGTC CTTCTCTTCG GTTCTACTGT
TTTTGAGCCT TGGAAGAGAT TATGGAAGAC CTGGGCTCCT
7521 CCTAAATGCA AGTTCTTCTT TTGGTTGGCA ATAAGGAACA
AATGTTGGAC AGCCGATAGA TTACAGTTGA GGGGAATGCC
7601 ACACCCAGAT GTTTGCCCAA TGTGTGATCA AGCCCAAGAG
ACAATTCAGC ACCTCCTTAG TGCCTGCATT TTTGCCCGAC
7681 AATTTTGGCA CACAATTCTT GCTGCTATTG GCTTGGGGCA
CCTCACTCCA ACAGCTGATG AGGAGAATTT TGCAGACTGG
7761 TGGGGAAAGG CAAGCCTTAG GGTTGTCAAG ACCAGAAAAA
GGGGCTTAAC TCTATGATCA TCCTGGGGGC TTGGTGTCTA
7841 TGGCTTCAGA GAAACAGAGC AGTGTTCCAT GGGGAGTCTT
CCTCATTACC CAGGATTTTC AGGTGTTTCT CGGATGAGTA
7921 CGTTTGCTGG GTAATAGCAG GAGCTAAGGA GTTTGGGAGC
TTGGGCTTAG TTGCTGCCCT GGGCGAGGTC GGGTCAAGTT
8001 TCAGCAACAA TCTGTAATCA CCTTCGGGTT TATAAGGGTT
TTTGGGAGAG TTGCTCAGCA AAATCTCCTT TATTGTAATG
8081 TTTTCTTTTC CTCTCTAATA TATAAGATGC GCAGTTCTCC
TGCGCGTTCT ATAAAAAAG GCAATAAAGG AGAAGAAAGA
8161 ATATTACAGG AGCTTATTCC ATGACAAGAG CGCGGTCAAC
ATAGAAAGGT ACAAGGCAAA GAAGACCGCA AAGCGAGTTG
8241 AGTGAGGCAA ATGGTTGAGC CTATTATTGT CAAAACCGAA
GACTAAGTAC AAAGGAAGGG GAGAAAGATG TCTATAAGAT
8321 AGCTAGGATT CGGGAAAGGA AGACGAGAGA CCTCAACCAA
GTTAAATGCA TTAAGGATGA GATGGATCAA CTCTTGGTGA
8401 AAGGACAAGA CATCAAACAG AGGTGGCAGA GGTATTTTGA
CATTCTTTTC AATGGTGAGA ATGAGACTAT GGACACCCAA
8481 TTGGATGACT CCTTTGATGA TTTAAATAGA TGCTTTGTAC
GTAGGATCCA AGAATCAGAG GTCAAAGAAG CTTTAAAGAG
8561 GATGAAAGGG GTAGGGGCC GGATGGTATC CCAATAGAGG
TGTGGAAATG CCTTGTGGAT ATTGCTATCG TTTGACTAAC
8641 CAAGTTGTTT AACCATATTT TTCGATCAAA CAAGATGCCT
GAAAAGTGA GGAGGAGTAC ATTAGTACCA ATCTTCAAGA

FIGURE 13A CONTINUED

8721 ACAAGGGAGA TATTCAAAGT TGTACCAACT ATTGTGGGAT
TAAGCTCATG AGCCACACTA TGAAGCTATG AGAGAGAGTT
8801 ATTGAGCATC GCCTGAGAGG AATGACACAT ATGACCATGA
ACCAATTTGG ATTCATGCCT AGAAGGTCAA CCATGAAGTA
8881 ATTTTCTTAA TAAGGCAGGT CATGGAGCGA TATAAGGAGC
AGAAGGACTT GCACATGGTT TTTACTACCC TAGAGTCAAA
8961 AGGTTTTTAT TGCACATGGT TTTCTTGTCG CATGAGATGT
GACTTTGGTA CTACAATTAG TGAGGATGGA GATGTAAGCT
9041 TGGGAGGCCA GGTAGTACCA AAGAAGGACA CCTTCCGTTA
TTTGGGATCG ATGCTACAGA GAGATGGTGA TATTGATGAA
9121 GATGTTAGCC ATAGAATCAA AGCGGGGTGG ATGAAATGAC
GTCAAGCATC GGGAGTCCTA TGCACACAAGA GTGTGGCACA
9201 GAAGTTGAAA GGCAAGTTCT ACAGGACAAC GATTAGGCCT
GCTATGTTAT ATGGGGCTGA GTGTTGGCCT ACTAAGAGAC
9281 GACATATCCA ACAACTAAGT GTCGTAGAGA TACGTATCTT
GTGTTGGATA TGTGGGCACA CAAGATTGGA TCGAGTGAGA
9361 AATGATGACA TACGCGATCG GCTAGGAGTA GCGCCAATTG
AAGATAAGAT TATTCAACAC CGGTTGAGAT GGTTTGAGCA
9441 TGTCCAATGA AGACCCCAGT GGCACCGGTG CATAGAGGCA
TCATAAGACA AGACAATAAC GTGAAGAGAG GTAGAGGTCTG
9521 ACCAACTTG ACATGGGAGG AGGCAATCAA AAGGGACTTG
AAGGAATGGA ATATCCTAAT GGAGTTGTGT TTGGATAGAT
9601 CATAGAAAGT CTTGGAAAGA AGCTATCCAC GTGCCCCAAC
CGTGATTAGG CCTTTTTCCT TTTAGTGCTC TCAAAAGCTT
9681 TTGCCCTCCT CTTTCTTTTT CTCTTTCTCT TTTTGGTGAC
ATCTTGTTGG GTTTCAACTC TAGCCTACCT CAACTTGCTT
9761 GGGATTAAAA GGCTATGTTG ATGTTGATGA TTCAGTTCCT
TATTATTTTA TTCCCTAAGC TGTCGTCTAC TTATGTAGAA
9841 ATCAGACGTT TTTATGGAAT GGACTATGGA GGAGGGTATG
ACATTTGGAG GAAAACAGCA GCTCTTGCTG CACCATTTAA
9921 TTTTGATGAA GTAGATTCTC TATGGCCAAA GGGCCATTGT
GTAGCAGTTA GAATTACTAG TGAGGACCCA GATGATGGTT
10001 TCAAACCTAC TGGCGGGAAA GTGAAGGTAA GGTTTCAAGA
TGACAGATGT TCTATATACA GTTCAAAGTT TCAAACAAAT
10081 TTATGTTGGG AAATTTGGAT TCATACCATT AAAAGATCAC
CACTTTGGAT CCATACCATT ACTATCTCAC TTACATGTGG
10161 GTCCACATGA GTCAATGACA TGTGGGGTCC ATGGTATATA
TCTAAAGTTT GGATCTTTTA ATGGTATAGA TCCAATTGTT
10241 CCATTTATGT TTGGTTACAT GACCAGGTCT TGGTTTTTAT
ATTTTAGGAG ATAAGTTTTA AAAGCAAGCC TAATGTTTGG
10321 GCCTACTTCT CAGTAAAGGT AACTTGTTAA CTTTGTTACA
CTGTCACATT ATTCTTCATT GTGCAGATAA TTTGGATGGG
10401 ACTCTTTCTA TTTTAACCAT TCATCATCTC ATTTAGCGAA
GCAAATATTT GCACTGACTC CCCTTTTATC TGCTTTCAGT

FIGURE 13A CONTINUED

10481 CTGGTGGAGG CATTGATGAA TTTGCTGATT CTCAGTTTGG
TATGTTTTAAA TCAAGAATAT TCTTCTTTGT AATATGTATT
10561 TGTCTTCATT TTTGAAATAT TGCTCTTTCC ATTACAGGAC
ATGTTTTTGC ATATGGACTC TCTAGACCAG CAGCTATAAC
10641 AAACATGTCT CTTGCATTAA AAGAGATTCA GATTCGTGGA
GAAATTCATT CAAATGTTGA TTACACAGTT GACCTCTTAA
10721 ACGTAAGAAA TATTGACCAT CTTTTGAATC CCCATTTTGA
CTATGTTGAT TTGTCTCATG TTTGATTTTC CATTATGGCT
10801 AAACCTGTGG TGCTGTTTCC TTATTATTCC AGGCTTCAGA
CTTCAGAGAA AACAAGATCC AACTGGTTG GCTGGATACA
10881 AGAATAGCTA TGCCTGTTCA AGCTGAGAGG CCCCCATGGT
ATATCTCAGT GGTTGGAGGT GCTTTATATG TAAGATAAAG
10961 AAATCATACC ATGCTAACAT CTTTTGTCAA GCTACTGTGA
AGATCATTAA GATCTAATTT AAATCGTCGT TACATGCTAC
11041 AGAAAACAGT AACCACCAAT GCAGCCACTG TTTCTGAATA
TGTTAGTTAT CTCACCAAAG GCCAGATTCC ACCAAAGGTA
11121 TGTTTTGTGG AATTAACCTCT GTATACTTTT AAGGTGAAAA
ATGGTTGACA AATAATTCTT ATATGCAGCA TATATCCCTT
11201 GTCAATTCAA CAGTTAATTT GAATATAGAA GGGAGCAAAT
ACACAGTAAG TTTGACATTG CATAAGAGAA TTTATTTTAG
11281 TTGTTACAAT AAAGTTAGAT AGACATCATT CTGAGTTTCG
AATGTGTTGT ATTGTAGATT GAACTGTCA GGACTGGGCA
11361 TGGTAGGTAC AAGTTGCGAA TGAATGATTC AACAGTTGAG
GCGAATGTAC AATCTTTATG TGATGGTGGC CTCTTAATGC
11441 AGGTAACCTA TTATTTTTTTT TATACTTTAT TATTAATTAG
TTGGATAAAT GGTTTTGATT TCATGATGGT TCTGATTGTT
11521 GAACTGCAAT GACTCCAGTT GGATGGAAAC AGCCATGTGA
TTTATGCAGA AGAAGAAGCT GCGGTACAC GGCTTCAGAT
11601 TAATGGAAAG ACATGCTTGT TGCAGGTAAA TACTCTCTTC
TTTTTTTTTTA TGTTCTTGGT ATCAATTGGG CAACTTCCGC
11681 CAGACTTTTC TGTATCATTT ATTATTGCAT TTCCCTCCAC
TACCTTACCT TTAAGAGGTG GGTTCTGTTG TTTGCTTCTG
11761 CAGGAGACAT CACCTAAGAA AATTGTGACT CATCCTTGTT
TTCTTGCGAGA ATGACCATGA TCCATCAAAG TTATTAGCTG
11841 AGACTCCCTG CAACTTCTT CGCTTTTTGG TTGCTGATGG
TGCTCATGTT GGTGCGGATG TGCCATATGC GGAAGTTGAG
11921 GTTATGAAGA TGTGCATGCC TCTCTTGTC CCTGCTTCTG
GTGTCATTCA TTGTATGATG TCTGAGGGCC AGGCGTTGCA
12001 GGTTATATTC ATACATGTCC ATTCCTTGCA TTGTTGCTTT
CATCACATAG TATTTTCATGT AAAATTTACC AACTTATATT
12081 TTGTTTTAGG CTGGTGATCT TATAGCAAGG CTGGATCTTG
ATGACCCTTC TGCTGTGAAA AGAGCTGAAC CATTGATGG
12161 AATGTTTCCA CTAATGGACC TCCCTGTTGC TGCTCTAGT
CAAGTACACA AAAGATATGC TGCAAGTTTG AATGCTGCTC

FIGURE 13A CONTINUED

12241 GAATGGTCCT TGCAGGATAT GAGCACAATA TCAATGAAGT
AAACATTCCA TCTTATTATG ACCACATTCC TTTTATTTTC
12321 TTTCTTTATC TTGTGTTTCC TTTACTTATG ATTTAAAAATA
TGTTTTTTGC ATGTTTATGA GTTATGGGTT AGATGGGTGC
12401 CATTTTTTTT GTGTTCGGTT TACTTTTGGT TCCAACCTCA
AATGTTCTAT AATAGTATAT GCTGATCATG CTCATGTTAG
12481 TGCAGAACTG CAAGTTTGTC TGCTACATAA ATTGTTTTCT
TTCTTTCTTT CATAATTTTA TCTTCTAGTT TGACAATTTT
12561 CAATCACACT TCTTTGATTT GAAGTTATTG CACTTTCGTG
TCTATCTAAT TAACCTCTGG TTCCAAATGT TCTACAATAG
12641 TGTATGCTGA TCATGCTCAT GTTAGTGTGG AACTGCAAGT
TTATTTGCTA CATAAATTGT TTTCTTTCTT TCTTTCAGAA
12721 CTTTATCTTC TAGTTTGACA ATTTCTAATC ACACTTTGTT
GCACATTGGT GTCTATCCCA TTAACCTCTT AGCACTTAAT
12801 TATCCATTAT CAATTGATTC ATGTAAATT CTTCTTTGTT
TCAGGTCGTT CAAGATTTGG TAGCTGCCT GGACAATCCT
12881 GAGCTTCCTT TTCTACAGTG GGATGAACTA ATGTCTGTTC
TAGCAACGAG GCTTCCAAGA AATCTCAAGA GTGAGGTATG
12961 AGACAGTTGG CAAGATATAG CCAATCTGGA TTGAAGGAAA
GATGATTCAT TTTAGTAGAT GACAAAAAGC CATTAGAGAA
13041 ACTATAATAG TTTATAACAT TAGTTTGCAT AGTGTTATGT
TCATAAACCC TGTAGTTTGC TGCTGTTTGT TTTGTAAAT
13121 CTGAAATTGT ATTGATTGTT ATATTAAAA CTCAGAATAT
TTCACTCTAG CATTTTACCA GAAGGTGAAT CTTTCAGCAA
13201 GTTTGCCTTA ATTCTAGGAA CAATTGGATC TATACCATTA
AAAGATCCAA ACTTTAGATA TATACCATGG ACCCCACATG
13281 TCATTGACTC ATGTGGACCC ACATGTAAGT GAGATAGTAA
TGGTATGGAT CCAAAGTGGT GATCTTTTAA TGGTATGGAT
13361 CCAAATTTCC CTTAATTCTA TGATTCTAGT TCTTCTGGTA
TGTCCTTTTT ATTGTAGCTC TGATGTTTTT ATCTTTTATG
13441 CATGCAGTTA GAGGATAAAT ACAAGGAATA CAAGTTGAAT
TTTTACCATG GGAAAAACAA GGACTTCCCA TCCAAGTTGC
13521 TAAGAGACAT CGTCGAGGTA AGTTATGTTT CTTCTATGGT
ATCCCTTGAA CTGTTTGCTG TTGTCTTATC TAGTGTTTTT
13601 TCTGTAGGAA AATCTTGCAT ATGGTTCAGA GAAGGAAAAG
GCTACAAATG AGCGACTTGT TGAGCCTCTT ATGAACCTAC
13681 TGAAGTCATA TGAGGGTGGG AGAGAAAGCC ATGCACATTT
TGTTGTCAAG TCTCTTTTTG AGGAGTATCT TACCGTGGAA
13761 GAACTTTTCA GTGATGGCAT TCAGGTTGTT GTACATGACA
AGACTGACCA GATCAGTATT AGAAAAAGA ACACAAAATG
13841 TTCCTCCTT TTCATTCTCT TAGTTAGGAG AAATTTTTTG
CATGGCTTCA GCTGGAATTT ACTCATACAA TCTGACTTGT
13921 TTTTTTTCTA ATTATGTCAT GGCAGTCTGA CGTGATTGAA
ACCTTGCGTC ATCAGCACAG TAAAGACCTG CAGAAGGTTG

FIGURE 13A CONTINUED

14001 TAGACATCGT GCTGTCTCAC CAGGTAAATT TCTGTATGGC
TGATGATTTT TATGCAAATG AAACAATCTT TGATATTGGT
14081 AGTGATTTTA TTCACAGGGT GTGAGGAACA AAGCTAAGCT
TGTAACAGCA CTTATGGAAA AGCTGGTTTA TCCAAATCCT
14161 GGTGCGTACA GGGATCTGTT GGTCGCTTT TCGTCCCTCA
ATCATAAAAG ATATTATAAG GTGCGGTGAT TAGAAATAAC
14241 CTAGATATTC CCCTTATAAA TTATTTTGAT ATTTTACCTA
ATGAATTCCA TGCATCTTAA TAAACACAGT TGGCCCTTAA
14321 AGCAAGTGAA CTTCTTGAAC AAACCAAAT AAGTGAATC
TGTTCCAGCA TTGCAAGAAG CCTTTCAGAT CTGGGGATGC
14401 ATAAGGGAGA AATGACTATT AAGGATAGCA TGGAAGATTT
AGTCTCTGCC CCATTGCCTG TTGAAGATGC TCTTATTTCT
14481 TTGTTTGATT ACAGTGATCC AACTGTTCAG CAGAAAGTGA
TTGTGACATA CATATCACGA TTGTACCAGG TATCATATCA
14561 ACTAACTTGA TGTCTTTCAT AATCCTACTG AGCAGTCTGA
CATGTTAGAT GTCCTAATGA CATGGAATGC TCATCTTTTC
14641 ATTATACACA TGAAATGTTG AGAAATGAAA TGATAATCGA
CTGAAATTAA CTGAGTGTGA AAAATTGTGA TCTCCCAACT
14721 TGTTAACGAA CATCGTCCTG GCTAACTTGC CAATATTTTT
TCAGCCTCAT CTTGTGAAGG ATAGCATCCA AATGAAATTC
14801 AAAGAATCTG GTGCTATTGT TTTTGGGAA TTTTCTGAAG
GGCATGTTGA TACTAGAAAT GGACAAGGGG CTATTCTTGG
14881 TGGGAAGAGA TGGGGTGCCA TGGTCGTTCT CAGATCACTT
GAATCTGCAT CAACAGCCAT TATGGCTGCA TTTAAAGATT
14961 CTGTACAGTA CAACAACTCT GAGGTCAACA CAATGCACAT
TGTGTTATTG AATGCTGAAA CTGAAAGTAA TATAAGTGGG
15041 ACAAGGTTT TCCATGTGCA ATATTAGGTC CAAAGGTTTT
TTTTTCTAAG TTGTGTAAT CTTTTTAATC GAGTCCATTT
15121 CTTTCAGCAG TGATGACCAA GCTCAACATA GGATGGAAAA
GCTTACCAAG ATACTGAAGG ATAGTAGTGT TGCAAGTGAT
15201 CTCCAAGCTG CTGGTTTGAA GGTATAAGT TGCATTGTTC
AAAGAGATGC AGGTCGCATG CCAATGCGCC ACACATTCCT
15281 CTGGTTTGAT GAAAAGAACT GTTATGAAGA AGAGCATATT
CTCCGGCATG TGGAGCCTCC CCTCTCTGCA CTTCTTGAAT
15361 TGGTCTGTCT ATCAAAATAA CTGCATGCTT GTTTGCTACA
TTATGTTATT ATGTTTGTCT TATTTTCTTT TCTATGCTTA
15441 TTTTCTTAT TATGAATACA GGGTAAGTTG AAAGTGAAAG
GATACAACGA AATGAAGTAT ACTCCATCAC GTGATCGTCA
15521 ATGGCATATC TACACACTAA GAAATACTGA AAACCCCAA
ATGTTGCATA GGGTATTTTT CCGAACTATT GTCAGGCAAC
15601 CCAATGCAGG CAACAAGTTT ACGTCGGCAC AGGTCAGCGA
CACTGGATTA GGATGTCCTG AAGAATCTCT GTCATTTACA
15681 TCGAATAGCA TCTTAAGATC ACTGATGACT GCTATAGAAG
AATTAGAGCT TCATGCGATT AGGACAGGTC ATTCTCACAT

FIGURE 13A CONTINUED

15761 GTTTTTGTGC ATACTGAAAG AACAAAAGCT TCTTGATCTC
GTCCCATTTT CAGGGTAAGT GTGCACATAA TCCTTTTCAG
15841 AATATGTTTA TGC GTT GACT ATTATATTGG TCTCTTAATA
AGCATTTTCGT GTTACTCAGG AGTACAATTG TTGACGTTGG
15921 CCAAGATGAA GCTACTGCTT GTTCACTTTT AAGATCAATG
GCTTTGAAGA TACATGAACT TGTTGGTGCA AGGATGCATC
16001 ATCTTTCTGT ATGCCAGTGG GAGGTGAAAC TCAAGTTGGA
CTGTGATGGA CCTGCAAGTG GTACCTGGAG AGTCGTAACCT
16081 ACAAATGTCA CTAGTCACAC CTGCACCATT GATGTAAGTT
GTCCTTACTG TTTTGTATT TTGTATATAA CACACATGAA
16161 GATTTAAGCA ACATGCAGTT CTTATATTCC GAAATCCGAA
CTGCCATCCA TGTCATTATG TTCTGAAGCA CATAGTATTT
16241 CTAATGGATT TAGATCTACC GAGAAGTGGA AGATACAGAA
TCGCAGAAGT TACTATACCA TTCAGCTACT TCGTCAGCTG
16321 GTCCAATGCA TGGTGTGCA CTGAATAATC CTTATCAACC
TTTGAGTGTG ATTGATCTAA AGCGCTGCTC TGCTAGGAAC
16401 AACAGAACAA CATATTGCTA CGATTTTCCG CTGGTGAGCT
GCCCTCTTC CTCGCTCACT CACCCTCACC CTCAATACCT
16481 ATCTTTAGTT ATTTTAAACC TAAGTTGGTA ATTACAAAAA
AATGTAGGCA TTTGAAACTG CACTGCAGAA GTCATGGCAA
16561 TCCAAGTGT CTAGTGTTCC TGAAGGCAGT GAAAATAGTA
AATCCTACGT GAAATCAACT GAGCTGGTGT TTGCTGAAAA
16641 ACATGGGTCC TGGGGCACTC CTATAATTCC CATGGAACGT
CCTGCTGGGC TCAATGACAT TGGTATGGTC GCTTGGATCT
16721 TGGAATGTC AACACCTGAA TTTCCCAATG GCAGGCAGAT
TATTGTTGTA GCAAATGATA TTACTTTCAG AGCTGGATCA
16801 TTCGGCCCAA GGGAAGATGC ATTTTTTGAA GCTGTCACCA
ACCTGGCTTG CGAAAGGAAG CTTCCCCTTA TATACTTGGC
16881 AGCAAACCTCT GGTGCTAGGA TTGGCATAGC TGATGAAGTG
AAATCTTGCT TCCGTGTTGG GTGGTCTGAT GAACGCAGCC
16961 CTGAACGAGG GTTTCAGTAC ATCTATCTGA CTGAAGAAGA
CTATGCTCGT ATTAGCTCTT CTGTTATAGC ACATAAGCTG
17041 CAGCTAGATA ATGGTGAAAT TAGGTGGATT ATTGACTCTG
TTGTGGGCAA GGAGGATGGG CTTGGTGTG AGAACATACA
17121 TGGAAGTGCT GCTATTGCCA GTGCTTATTC TAGGGCATAT
GAGGAGACAT TTACACTTAC ATTTGTGACT GGGCGGACTG
17201 TAGGAATAGG AGCCTATCTT GCTCGACTTG GTATACGGTG
CATACAGCGC CTTGACCAGC CTATTATTTT AACAGGGTTT
17281 TCTGCCCTGA ACAAGCTCCT TGGGCGAGAA GTGTACAGCT
CCCACATGCA GCTGGGTGGT CCTAAGATCA TGGCGACCAA
17361 TGGTGTGTC CACTTGACCG TTTCAGATGA TCTTGAAGGT
GTTTCCAATA TATTGAGGTG GTCAGCTAT GTTCCTGCAA
17441 ACATTGGTGG ACCTCTTCCT ATTACCAAAC CTTTGGACCC
TCCAGATAGA CCTGTCGCAT ACATCCCTGA GAACACATGC

FIGURE 13A CONTINUED

17521 GATCCGCGTG CAGCCATCCG TGGTGTAGAT GACAGCCAAG
GGAAATGGTT GGGTGGTATG TTTGACAAAG ACAGCTTTGT
17601 GGAGACATTT GAAGGATGGG CAAAAACAGT GGTACTGGC
AGAGCAAAGC TTGGAGGAAT TCCTGTGGGT GTTATAGCTG
17681 TGGAGACACA GACCATGATG CAGCTCATCC CTGCTGATCC
AGGTCAACTT GATTCCCATG AGCGATCTGT TCCTCGGGCT
17761 GGACAAGTGT GGTTCCCAGA TTCTGCAACC AAGACAGCTC
AGGCATTATT AGACTTCAAC CGTGAAGGAT TGCCTCTGTT
17841 CATCCTGGCT AACTGGAGAG GCTTTTCTGG GGGACAGAGA
GATCTCTTTG AAGGTATTCT TCAGGCTGGG TCAGCAATTG
17921 TTGAGAACCT TAGGACATAT AATCAGCCTG CGTTTGTCTA
CATTCCTATG GCTGGAGAGC TTCGTGGAGG AGCTTGGGTT
18001 GTGATCGATA GCAAAATAAA TCCAGACCGC ATTGAGTGTT
ATGCTGAGAG GACTGCCAAA GGTAATGTGC TCGAACCTCA
18081 AGGGTTAATT GAAATTAAGT TCAGGTCAGA GGAACTCCAA
GACTGTATGG GCAGGCTTGA CCCAGAGTTG ATAAATCTGA
18161 AAGCAAACT TCAAGATGCA AAGCATGGAA ATGGAAGTCT
ACCAGACATA GAATCGCTTC AGAAGAGTAT AGAAGCGCGT
18241 ACAAACAGT TGTTACCTTT ATATACCCAG ATTGCAGTAC
GCTTTGCTGA ATTGCATGAT ACTTCCCTGA GAATGGCAGC
18321 TAAAGGCGTG ATTAAGAAAG TTGTAGACTG GGAAGAATCA
CGCTCTTTCT TCTATAAAAG GCTACGGAGG AGGATCTCTG
18401 AAGATCTTCT TGCAAAAGAA ATAAGACGAA TAATTGGTGA
CAACTTCACG CACCAATCGG CGATGGAGCT TATCAATGAA
18481 TGGTACCTGG CTTCTCAGGC CACAACAGGA AGCACTGCTG
GATGGGATGA TGATGATGCT TTTGTTGCCT GGAAGGACAG
18561 TCCTGAAAAC TACAAGGGAT ATATCCAAGA GCTAAGGGCT
CAAAAAGTAT CTCAGTCGCT CTCTGATCTT GCTGACTCCA
18641 GTTCAGATCT ACAAGCATTC TCGCAGGGTC TTTCTACACT
ATTAGATAAG GTAAGTTTGC TTACAGTTTT ACCTTTTTTT
18721 AATTTACAAT TAACCTGAGC TACAACTTGT GGTATCTGTT
GTATCTCACC TTTTTTAGGA GTCGTATTT CAGTTGCATT
18801 CTGCTGGACA CTTAATTGCA TATATACATG ACATCTTATC
AATTCATGAT TCTAATACAT ACCCATTGCC TTCTCACATC
18881 CCGTCTTTGG ATGCTCATTC AGATGGATCC TTCTCAGAGA
GTGAAGTTTG TTCAGGAAGT CAAGAAGGTT CTTGGATGA

FIGURE 13B

Zea mays plastidal ACCase NC050105.1 (SEQ ID NO: 951)

1 MSQLGLAATA SKALPLLPNR QRSPAGTTFF SSALPRPSNR
RKSHTRSLRD GGNEVSDAKK HSQSVRQGLA GIIDIPSDAV
81 SEVDISHGPK DPRGPTDSYQ MNGIINETHN GRHASGSMVV
EFCAALGGKT PIHSILVANN GMAATKFMRS VRTWANDTFG
161 SEKAHILIAM ATPEDMRINA EHRLADQFV EVPGGTNNNN
YANVQLIVEI AERVGVS AVW PGWGHASENP ELPDALTAKG
241 IVFLGPPATS MNALGDKVGS ALIAQAAGVP TLAWSGSHVE
VPLECCLDAI PEEMYRKACV TTTEEAVASC QVVGYPAMIK
321 ASWGGGGKGI RKVHNDDEV R ALFKQVQGEV PGSPIFIMRL
ASQSRHLEVQ LLC DQYGNVA ALHSRDCSVQ RRHQKIIEEG
401 PVTVAPRETV KALEQAARRL AKAVGYVGAA TVEYLYSMET
GEYYFLELNP RLQVEHPVTE WIAEVNLPAA QVAVGMGIPL
481 WQIPEIRRFY GMDYGGGYDI WRKTAALAAP FNFDEVDLSLW
PKGHCVAVRI TSEDPDDGFK PTGGKVKEIS FKSKPNVWAY
561 FSVKSGGGIH EFADSQFGHV FAYGLSRPAA ITNMSLALKE
IQIRGEIHSN VDYTVDLLNA SDFRENKIHT GWLDTRIAMR
641 VQAERPPWYI SVVGALYKT VTTNAATVSE YVSYLTGQOI
PPKHISLVNS TVNLNIEGSK YTIETVRTGH GRYKL RMNDS
721 TVEANVQSLC DGGLLMQLDG NSHVIYAE E AGGTRLQING
KTCLLQNDHD PSKLLAETPC KLLRFLVADG AHVGADV PYA
801 EVEVMKMCMP LLSPASGV IH CMMSEGQALQ AGDLIARLDL
DDPSAVKRAE PFDGMFPLMD LPVAASSQVH KRYAASLNAA
881 RMVLAGYEH N INEVVQDLVC CLDNPELPFL QWDELMSVLA
TRLPRNLKSE LEDKYKEYKL NFYHGKNKDF PSKLLRDIVE
961 ENLAYGSEKE KATNERLVEP LMNLLKSYEG GRESHAHFVV
KSLFEEYLT V EELFSDGIQS DVIETLRHQH SKDLQKVVDI
1041 VLSHQGVRNK AKLVTALMEK LVYPNPGAYR DLLVRFSSLN
HKRYYKLALK ASELLEQTKL SELCSSIARS LSDLGMHKGE
1121 MTIKDSMEDL VSAPLPVEDA LISLFDYSDP TVQQKVIVTY
ISRLYQPHLV KDSIQMKFKE SGAIVFWEFS EGHVDTRNGQ
1201 GAILGGKRWG AMVVLRSLES ASTAIMAALK DSVQYNNSEV
NTMHIVLLNA ETESNISGTS SDDQAQRME KLT KILKDSS
1281 VASDLQAAGL KVISCI VQD AGRMPMRHTF LWFDEKNCYE
EEHILRHVEP PLSALLELGK LKVKGYNEMK YTPSRDRQWH
1361 IYTLRNTENP KMLHRVFFRT IVRQPNAGNK FTSAQVSDTG
LGCPEESLSF TSNSILRSLM TAIEELELHA IRTGHSHMFL
1441 CILKEQKLLD LVPFSGSTIV DVGQDEATAC SLLRSMALKI
HELVGARMHH LSVCQWEVKL KLD CDGPASG TWRVVTTNVT
1521 SHTCTIDIYR EVEDTESQKL LYHSATSSAG PMHGVALNNP
YQPLSVIDLK RCSARNRRTT YCYDFPLAFE TALQKSWQSN
1601 CSSVPEGSEN SKSYVKSTEL VFAEKHGSWG TPIIPMERPA
GLNDIGMVAW ILEMSTPEFP NGRQIIIVAN DITFRAGSFG
1681 PREDAFFEAV TNLACERKLP LIYLAANSGA RIGIADEVKS
CFRVGWSDER SPERG FQYIY LTEDYARIS SSVIAHKLQL
1761 DNGEIRWIID SVVGKEDGLG VENIHGSAAI ASAYSRAYEE
TFTLTFTVGR TVGIGAYLAR LGIRCIQRLD QPIILTGFS A
1841 LNKLLGREVY SSHMQLG GPK IMATNGVVHL TVSDDLEGVS
NILRWLSYVP ANIGGPLPIT KPLDPPDRPV AYIPENTCDP

FIGURE 13B CONTINUED

1921 RAAIRGVDDS QGKWLGGMFD KDSFVETFEG WAKTVVTGRA
KLGGIPVGVI AVETQTMMQL IPADPGQLDS HERSVPRAGQ
2001 VWFPDSATKT AQALLDFNRE GLPLFILANW RGFSGGQRDL
FEGILQAGSA IVENLRTYNQ PAFVYIPMAG ELRGGAWVVI
2081 DSKINPDRIE CYAERTAKGN VLEPQGLIEI KFRSEELQDC
MGRLDPELIN LKAKLQDAKH GNGSLPDIES LQKSIEARTK
2161 QLLPLYTQIA VRFAELHDTs LRMAAKGVik KVVDWEESRS
FFYKRLRRRI SEDLLAKEIR RIIGDNFTHQ SAMELINEWY
2241 LASQATTGST AGWDDDDAFV AWKDSPENYK GYIQELRAQK
VSQSLSDLAD SSSDLQAFSQ GLSTLLDKMD PSQRVKfVQE
2321 VKKVLG

FIGURE 14A

cDNA sequence of *Sorghum bicolor* plastidal ACCase NC012875
(SEQ ID NO: 952)

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1 ATGTCGCAGC TTGGATTAGC TGCAGCTGCC TCAAAGGCAC
TGCCACTACT CCCTAATCGC CAGCGAAGTC CTGCTGGGAC
81 TACATTCTCA TCATCTGCAT TGTCGAGGCC CTCAAACCGA
AGGAAAAGCC GTACCCGTTC ACTCCGTGAT GGTGGAGATG
161 GGGTATCAGA TGTCAAAAAG CACAGCCAGT CTGTTTCGTCA
AGGTACTGTG AATATCTTTC GATACAAGCT AAAATTTTGT
241 TTCAAAATAT ATATGGAGTT CTTTATTGGC TGGCATTGTT
CATTTGTTTT AACATCGTAA TGTTTGATGC CTCATTCTAG
321 GTATCAACGT AGATATGCTC ACTGCTCAGT TTCAAATGTT
TGTCTGCATG TAGGTCTTGC TGGCATTATT GACCTCCCAA
401 GCGAGGCAGC TTCGGAAGTG GACATTTTAC AGTAAGCGGC
TATAGTATTT TGCGTATTAT ATGTTTGTTC TGGAAAAAGA
481 AAATATTCTG CAGCTTATTT AACTAGTTT CCCTGATAGT
GAAATGCTGT CTTAATGTCC TAGTGCTGTA TACTCAATAT
561 TTCGTAGTAA ATGCTGCAAA ATATGTGATA TAAATGTTGC
AACACAGCCA GGGGCCTGCT TCTGTACCTG CTATTGAGCA
641 TGATGAATAC TTCGCTCACT TATATGATGT GGTTATATCT
CATGTAGAAG AATTAGTTGC AGTATTGCTG GACAATGGTT
721 ACTTATTATG AAATCATGTC TGCTACAAAT TTTCTGGCTT
CTGTTGCTGT AAATGCCTGT TTTTTTTTTG GAAAAGATTA
801 AATGTTTGAC CTAAATTGGA CATATACTCC CTCCGTCCCT
GAATATCTGT CGTTCTCGCT TCCCGAGAAA TGACTTTTAT
881 TAATTTTATA TAAAAACATA TTAATATTTT TTATACAATT
GACATCATTA GATAGGTCTT TAATCTAGTT TTTTAATAAA
961 TTTATTTGGA GATATAAATG TTGTACGCAT TTGCTACAAA
TCTAGTCAAA CTTGTGGCAG GAAACCCAGA AACGACACTT
1041 AAAAAGGGGC GGAGGGAGTA TGATAGACGC AAAGCTCATT
TTGAACTTTT TTGATTTGTG ACAACCATGC ATATTGTTAG
1121 TGTTGTGAAC AAAATGGTAA TCCTTTCCTT TTGTATTTTT
CCAGTGGATC TGAGGATCCT AGGGGTCCAC CAGATTCCTA
1201 TCAAATGAAT GGGATTATCA ATGAAACACA TAATGGAAGA
CATGCTTCAG TGTCCAAGGT TGTTGAATTT TGTGCGGCAC
1281 TAGGTGGCAA AACACCAATT CACAGTATAT TAGTGGCCAA
TAATGGAATG GCAGCAGCAA AGTTCATGAG GAGTGTCCGG
1361 ACATGGGCTA ATGATACTTT TGGATCTGAG AAGGCAATTC
AGCTCATAGC TATGGCAACT CCGGAAGACA TGAGGATAAA
1441 TGCAGAGCAC ATTAGAATTG CTGATCAATT TGTAGAGGTG
CCTGGTGGAA CAAACAATAA TAACTACGCC AACGTTCAAC
1521 TCATAGTGGA GGTTAGCACT GCTAATCTGT TAGTTTACTA
CTGATCGGCT GTTCCCTTTA TTTCTTCTAT AACCATTGTC
1601 ATATTTAAGT AGAGAAGTTT ATATTTCTCC TCTGCTGTTG
TTGTGGAAGT CTAATTGTCA CCATTTATTA ACTATGAAAT
```


FIGURE 14A CONTINUED

1681 ATTGCAGGTA GCAGAAAGAG TAGGTGTTTC TGCTGTTTGG
CCTGGTTGGG GTCATGCTTC TGAGAATCCT GAACTGCCGG
1761 ATGCATTGAC TGCAAAAGGA ATCGTTTTCC TTGGGCCACC
TGCATCATCA ATGAATGCAT TGGGAGATAA GGTCGGTTCA
1841 GCTCTCATTG CTCAAGCAGC TGGGGTCCCA ACTCTTGCTT
GGAGTGGATC ACATGTGAGT CTCTCTCTCT CTCTCTCTCT
1921 CTCTCTCTCT TTGATTACTA TCTGCCGGTC TCATTGCTCT
AACTTTTCATA TTCTAATAAT GACACTAAAT AGGTTGAAGT
2001 GCCATTAGAG TGCTGCTTAG ACGCTATACC TGAGGAGATG
TATAGAAAAG CTTGTGTTAC TACCACAGAG GAAGCAGTTG
2081 CAAGTTGTCA AGTGATTGGT TATCCTGCCA TGATTAAGGC
ATCCTGGGGA GGTGGTGGTA AAGGAATAAG AAAGGTGTGT
2161 TTTATTTATG TGAATAAAT ATCTGTGAAG AACTGTGCAC
ATTGGGGAGT ATGGTGTAGG GAGCTACCCC CCTCTCCTGT
2241 GATGTGATTA AATCAATTTT CCTGGCAGGT TCATAATGAT
GATGAGGTTA GAGCACTGTT TAAGCAAGTA CAAGGTGAAG
2321 TCCCTGGCTC CCCAATATTT ATCATGAGGC TTGCAGCCCA
GGTAGTTTTT TTTTTTCTTT CTGAAATCTA TATTCCATCC
2401 CTTTTTGTTT TTTTAAAGTT ATCCTTGTAT TTTCTGGAAG
CTTCATCTGA TGCATTATTG ACAAGTGCAC TGATGATCAT
2481 CATATTTGGA GATTAACATA TTTATGAAAG GTTAATTGAT
GGGAACTGTT GAAAGAGAAT GGTTGAGCGG ATACCATTCT
2561 ATTTTTAGAA TTTAGAAATC GCGGTTTTTG CGTACAAAAT
TGCATTTCCA GAACTGGAC TAAGCTTTTC TTAGTATTGA
2641 GTGGCATGTT ATACATGGAC CATTTTTGTC AACTTACAGG
GCTGTGATAA TGGCTGGAGA GAAATAATAC ATCTTGTTTC
2721 TCAACACTTA TGTGGAGAAG ATGTTTTACC TTTTCTAAA
ATCACTTTTT GGATTAAATT GTATAAGTTT TCAATATTCT
2801 CACTATTATT GAACCAAAC ATGTTTCATT CTTTACACCT
TTATTTTTCA AGATGGAAGC CTGGAATTGT GCTCTGTTAT
2881 CTATAGTCAA TTAGTCATAT ATTTATTTGA TTTTAAATCT
TTTTCTCTAT TGTAGAGTCG GCATCTTGAA GTTCAGTTGC
2961 TTTGTGATCA ATATGGCAAT GTAGCAGCAC TTCACAGTCG
TGATTGCAGT GTGCAACGGC GACACCAGAA GGTCTGCCCC
3041 CACCCACTCA GCCATAAACA CCAAATTATA GAACCATGCA
TTTTGTTATG CGATCTATTT CTTAACTGTA GTTCCATTCTG
3121 CATTTTTCTA CAACAGATTA TTGAAGAAGG CCCAGTTACT
GTTGCTCCTC GTGAGACAGT TAAAGCACTT GAGCAGGCAG
3201 CAAGGAGGCT TGCTAAGGCT GTGGGTTATG TTGGTGCTGC
TACTGTTGAG TATCTTTACA GCATGGAAAC TGGAGAATAC
3281 TATTTTCTGG AGCTTAATCC CCGACTACAG GTTTGCTATA
CGTGAACATC ATTGACTAAT TAACCTGTCG GGGAATCCTT
3361 CACATAAAAT TATCTCCATG CAGGTCGAGC ATCCAGTCAC
CGAATGGATA GCTGAAGTAA ATCTGCCTGC AGCTCAAGTT

FIGURE 14A CONTINUED

3441 GCTGTTGGAA TGGGCATACC TCTTTGGCAA ATTCCAGGTA
ATTACCAATT TACCAACTTA TTTAGTTCCT TATTAGTTTA
3521 TTCTCTAATC TGTCTACTTA TGTAGAAATC AGACGTTTCT
ATGGAATGGA CTATGGAGGA GGGTATGATA TTTGGAGGAA
3601 AACAGCAGCT CTTGCTACAC CATTTAATTT TGATGAAGTA
GATTCTCAAT GGCCAAAGGG CCATTGTGTA GCAGTTAGAA
3681 TTACTAGTGA GGACCCTGAT GATGGTTTCA AACCTACTGG
TGGGAAAGTG AAGGTAAGAT TTTGAGATGA CAGATGTATT
3761 ATGTATAGTT CAAACAGATT AAGTTTGGTT AAGTGACCAG
ATCTTGATTT TTTATCTTTT AGGAGATAAC TTTTAAAGCC
3841 AAGCCTAATG TTTGGGCCTA CTTCTCAGTA AAGGTAACCT
GTTAACTTTG TTACACTGTT ACATTATTCT TCATTGTGCA
3921 GATAATTTGG ATGGGACTAA GTTTTTAACC ATTCATCGTC
TCATTTAGCT AAGCAAATGT TTGCACTGAC TCCCCTTTTT
4001 ATCTGCTTTC AGTCTGGTGG AGGCATTCAT GAATTTGCTG
ATTCTCAGTT TGGTATGTGT AAATCAAGAA TATTCTTCTT
4081 TGTAATTTGT ATTGGTCCTC ATTTTCTAAA TATTGCTCTT
TCCGTTACAG GACATGTTTT TGCATATGGA CTCTCTAGAT
4161 CAGCAGCAAT AACAAACATG GCTCTTGCAT TAAAAGAGAT
TCAAATTCGT GGAGAAATTC ATTCAAATGT TGATTACACT
4241 GTTGACCTCT TAAACGTATG AAATATTAAC CACCTTTTGA
ATCCCTGTTT TCATTATGCT GATTCATATC ATTATGTTTG
4321 ATTTTCCATT ATGGCTAAAC CTGTGGTGCT ATTTCCCTAT
TATTCAGGC TTCAGACTTC AGAGAAAACA AGATTCATAC
4401 TGGTTGGCTG GATACCAGAA TAGCTATGCG TGTTCAAGCT
GAGAGGCCCC CATGGTATAT TTCAGTGGTT GGAGGTGCTT
4481 TATACGTAAG ATAAAGAAAT CATGCTAACA TCTTTTGTCA
AACTACTGTG AAAACATAC GATGTAAGGT CTAATTTAAA
4561 TAATTGTCAC ATGCTACAGA AAACAGTAAC CACCAATGCA
GCCACTGTTT CTGACTATGT TAGTTATCTC ACCAAGGGCC
4641 AGATTCCACC AAAGGTATGT TTTGTGGGAT TAACTCTGGA
TATTTTTAAG GTGAAAAATG GTTGACGAAT AATATTTTTA
4721 TGCAGCATAT ATCCCTTGTC AATTCTACAG TTAGCTTGAA
TATAGAAGGG AGCAAATACA CAGTAAGTTT GACATTCCAC
4801 AAGGGAATTT ATTTTAGTTG TAACAATAAA GTTAGACATC
ATTCTGAGTT TCGTCTGCAT TGTGTTGTAG ATTGAAACTG
4881 TAAGGACTGG ACATGGTAGC TACAGGTTGC GAATGAATGA
ATCGACAGTT GAAGCGAATG TACAATCTTT ATGTGATGGT
4961 GGACTCTTAA TGCAGGTAAC TTGTTCTTTC TTTTGTGCAT
TATTATTAAT TAGTTGGATA AATGGTTTTG ATTTATGCGC
5041 GGTTCCTGATT GTTGAATTGC AATGGCTCCA GTTGGATGGA
AACAGCCATG TAATTTATGC AGAAGAAGAA GCTGGTGGTA
5121 CACGGCTTCA GATTGATGGA AAGACATGCT TGTTGCAGGT
AAATACTCCC TTCTCTATA TTCTTGGTGT CTGATTGGGC

FIGURE 14A CONTINUED

5201 AACTTCTGCC AGATTTATCT GTATCATTTA TTATTGCATT
TTGGTCCACT ACCTTATCTT TAAAAGATGG GTTCTGTTGT
5281 TTGCTTCCGC AGGAGACATC ACATAAGAAA ATTGTTACTA
ATCCTTGTTT TCTTGCAGAA TGACCATGAT CCATCAAAGT
5361 TATTAGCTGA GACACCCTGC AACTTCTTC GTTTCTTGGT
TGCTGATGGT GCTCATGTTG ATGCGGATGT ACCATACGCT
5441 GAAGTTGAGG TTATGAAGAT GTGCATGCCT CTCCTGTCAC
CTGCTTCTGG TGTCGTTTCAT TGTATGATGT CTGAGGGCCA
5521 GCGGTTGCAG GTTATATTCT TACATGTCCA TTCCTTGCAT
TGTGCTTTCA TCCCATATAA TTTCATGTAA CATTGTGCAA
5601 ATTACATTTG TTTTAGGCTG GTGATCTTAT AGCAAGGCTG
GATCTTGATG ACCCTTCTGC TGTGAAAAGG GCTGAACCAT
5681 TTGATGGAAT ATTTCCACAA ATGGCGCTCC CTGTTGCTGC
CTCTAGTCAA GTACACAAAA GATATGCTGC AAGTTTGAAT
5761 GCTGCTCGAA TGGTTCTTGC AGGATATGAG CACAATATCA
ATGAAGTAAA CATTCCATCT TATTGTGACC ACATCCTGTT
5841 TATTTTCTTT GTTTATCTTG TGTTTCCTTT ACTTAGATAG
TTTCTACAAA AATGATCTTT TGTCCAGTCA CATGTCTTCT
5921 CCCTCACTCA TCTACCTATC ATATCTCTTC ATGTCTTGGT
TTCCGTGTAT ACATGGTTTC TTATTAAGAA ACCATTTCCC
6001 CCTCTTCTTT AATTGTAGTG CCACATCATC ATTTCTGTTT
AGTTTGACC CTAATTAATG AACATATAAA CCATGTAGTT
6081 TCTGGGTTGG GAGTGCCCTT AGCACTTGGT TATCCATTAT
CAACTGATTC ATGTTAAGCT ATTCTTCTTT TCAGGTCGTT
6161 CAAGATTTGA TATGCTGCCT GGACAACCCT GAGCTTCCTT
TCCTACAGTG GGATGAACTT ATGTCTGTTC TAGCAACGAG
6241 GCTTCCAAGA AATCTCAAGA GTGAGGTATG AGACAGTTGG
CAAGATATAG CCAATCTGGA TTAAAGGAAA GATGATTCAT
6321 TTTAGTAGAT ATATTATCTT AATTTTGCAT TTTACATATT
GGCTTATGTT GATGGCAGAA AAAGCCATCA GAGAAACTGT
6401 GATATTTTAT AACATTAGTT TGCACCGTGT TATGCTCATA
AATAAACCTG ACAATGGTTT GGGCCGGAAC CAGTTTCCAT
6481 GGTTTGATTT CTTGTTGGG CCAATTCAAT TTGGGTGAAA
ACGGGCTGAG CAAGCTGGTG GGCTGGTTCA GTCTGAGTTA
6561 TTA CTTAGAG TAGTTTAGTT TGGTTTGGTT TGGTTTGGGA
CTGAGTGTTT TGGCTTGATA ACAGGCTGAA GCTGTGGTTC
6641 CAACCCAGCA TCACACCACG GTACAGCAGA AGCCCCATCC
GCGTCCACTA GTATTCCTAT TGTATTACTG GATTTGTTTT
6721 TCTATAGGAA AACGGCCATA AAGTGTAGCA TGACGTCATG
CTGATGTTGA CAAGCTAGGA ATGAAGCAGA GCACACACAA
6801 CACTCAGCCG GCTACTCGCT CCGCGCCGCG CAGCAGCGCA
TGTCACGCAT GCACATGTGG GAGGACGTGC ACAGACGTCC
6881 GTGCTCGGCT CGGCCACGCT CGGGACCTCG TGGTTGCCGG
AGCTGCCGGG AGCGGTGCGA ATGGCGGCGC ATGGCCGGAC

FIGURE 14A CONTINUED

6961 GGAGGAGAGG CTCGCGCTGC ACTGCTTGGG CTTTGCCAGC
CTCAAGACCT CCGGTGCCGT CAAGCTCGTG GATGCCGCGG
7041 TGCTGGCGCG CTCCCTGCCC AGGCTCTACT CTCTCTTACC
TGCTCTCCAT CCTCTCCAGC TTCAGTGACC TGC GGGAGTT
7121 CATCATTTCA GCGCCCGGAG CTGTATCAGC TTCTATAACA
AGGACGAGGA GGTGCTCAGG CAAGGGGCCA GGATCCAGCG
7201 GTTCGACGTC AGAGGGTCCA AGTTGGTGGA CGAGATAGAG
AATGAGTTCG CCGGTGGTGA AGTTTTCTGC GACTCGTCCT
7281 ACGTTGAAGT GATGTGATCT CTGTCTGAAC CATTCCACGA
TGACAGTTCG AAGTCGGTTT CGAATCCCGG TTGTAGGCTG
7361 TGGACTGGTC TTGTTTGGAT TTAGGAACAC TACAGTTTGG
CGTGGACTGG TTTTGGAGGG GGAACGAGTG GGGTGGATTG
7441 GGGATTTGAA GGCAGACGTG ATTAGTTTGG TTTGGTTATG
GTCTGGATCA CGGACCATTA ACAGGTTTAC TCATAAAAAT
7521 CGTTTAGTTT TTTCTGCAGT TTGTTTTGTA AAATTTGATG
AAAACCTAGA ATTTTTCCT CTAGCATTTT ACCGGAAGGT
7601 GAATCTTTCA GTAAGTTTGT TTTGATTCTG TGATTGTAGT
TCTGGTATGT CCTTACATAA TCCATTTTTA TTCTAGCTTC
7681 TGATGTTTTT ATCTTTTATG CATGCAGTTA GAGGATAAAT
ACAAGGAATA CAAGTTGAAT TTTTACCGTG GAAAAACGT
7761 GGACTTCCCT TCCAAGTTGC TAAGAGACAT CATTGAGGTC
AGTTATGTTT CTTTTGTGGT ATCTCTTAAA CTGTTTGCTA
7841 TTGTCTTAAT CTTAACTAGT GTTTTCTCTG TAGGAAAATC
TTGCATATGG TTCAGAGAAG GAAAAGGCTA CAAATGAGAG
7921 GCTTGTTGAG CCTCTTACGA ACCTACTGAA GTCATATGAG
GGTGGGAGAG AAAGTCATGC ACATTTTATT GCCAAGTCCC
8001 TTTTCGAGGA GTATCTTATG GTGGAAGAAC TTTTCAGTGA
TGGAATTCAG GTTATTGTAC ATGACAAGAC TGAACAGATC
8081 AGTATTAGAA AAAGCACACA AAATGTTTAC TCCTTTTAC
TCTCTTAGTT GGGAGAACT TTTTGCATGG CTAGCTGTAT
8161 TTATTGGAAC AATCTGACTT GTTATTTGTC TCTAATTATG
TCATGGCAGT CTGACGTTAT TGAAACCTTG CGTCATCAGC
8241 ACAGTAAAGA CCTGCAGAAG GTTGTAGACA TTGTGTTGTC
TCACCAGGTA AATTTCTTTA TGGCTGATGA CTTTTATGCA
8321 AATGATTAGT GAAACAATCT TTGTTATTGA TAGTGTGATT
TTATTCACAG GGTGTGAGAA ACAAAGCTAA GCTTGTAACA
8401 GCACTCATGG AAAAGCTGGT TTATCCAAAT CCGGTTGCTT
ACAGGGATCT GTTGGTTCGC TTTTCTTCCC TCAATCATAA
8481 AAGATATTAT AAGGTGCAGT GATTACAATA ACCTAGACAT
CCCCCTTATA ATTTATTTTG ATGTTCTACC TAATGAATTC
8561 CATGCATCTT AATAAACACA GTTGGCCCTT AAAGCAAGTG
AACTTCTTGA ACAAACCAA CTAAGTGAAC TCCGTGCAAG
8641 CATTGCAAGA AGCCTTTTCA ATCTGGGGAT GCATAAGGGA
GACATGACTA TTAAGGATAG CATGGAAGAT TTAGTCTCTG

FIGURE 14A CONTINUED

8721 CCCCATTGCC TGTTGAAGAT GCTCTTATTT CTTTGTTTGA
TTACAGCGAT GCAACTGTTC AGCAGAAAAGT GATTGAGACA
8801 TACATATCAC GATTGTACCA GGTATTATAT CAACTAAGTT
GATGTCTTTC ATAGTCCCAC TAAGCATATC TGATATGTTA
8881 GATGCCCTAA TGACATGGAA TGCTCATCTC TTCATTTTAC
ATGAAGAAAT ATTGAGAAAT GAGATGCTGA TGTTTGGCTG
8961 AATTAAGTGG GTGTGAAAAA TTGTGATCTC CCAACTTGTT
AATGCACAAT GTGCTGGCTA ACTTGCCAAT ATATATTTTT
9041 TTTTCAGCCT CATCTTGTGA AGGATAGCAT CCAAATGAAA
TTCAAGGAAT ATGGTGCTAT TGCTTTTTTGG GAATTTTCTG
9121 AAGGGCATGT TGATACTTCA AATGGACATG GGAATATTCT
TGGTGGGAAG AGATGGGGTT CCATGGTCGT CCTCAAATCA
9201 CTTGAATCTG CATCAACAGC CATTGTGGCT GCATTAAAGG
ATTGAGCACA GTACAACAGC TCTGAGGGCA ACACGATGCA
9281 CATTGCATTA TTGAGTGCTG AAAATGAAAG TAATATGAGT
GGAACAAGGT TTGTTTCATGT GCAATATTAG GTCGAAAGGG
9361 GTTTTTGTTT AAGTTGTGTA ACTCTTTTTT CTTTAAATTG
AGGCCATTTT TTTGAGCAGT GATGATCAAG CTCAACATAG
9441 GATGGAAAAG CTTACCAAGA TACTGAAGGA TACTAATGTT
GCAAGTGATC TCCGAGCTGC TGGTTTGAAG GTTATAAGTT
9521 GCATTGTTCA AAGAGATGAA GCTCGCATGC CAATGCGCCA
CACATTCTCT TGGTTGGATG AAAAGAGTTG TTATGAAGAA
9601 GAGCAAATTC TCCGGCATGT GGAGCCTCCC CTCTCTGCAC
TTCTTGAATT GGTCTGTTTA TCAAATGAT TGCATGCTTG
9681 TTTGCTACAT TCTGTTATTA TGCTTTGCTT ATTTTCTTCA
CTATACTTAT TTTGCCTATT ATGAATACAG GATAAGTTGA
9761 AAGTGAAAGG ATACAATGAA ATGAAGTATA CTCCGTCACG
TGATCGTCAA TGGCATATCT ACACACTAAG AAATACTGAA
9841 AACCCCAAAA TGTTGCATAG GGTATTTTTT CGAACTATTG
TCAGGCAACC CAATGCAGGC AACAAGTTTA CATCAGCTCA
9921 GGTGAGTGAT ACTGAAGTAG GAGGTCCTGA AGATTCTCTG
TCATTACAT CGAATAGCAT CCTAAGATCA TTGATGACTG
10001 CTATAGAAGA ATTAGAGCTT CATGCGATTA GGACAGGTCA
TTCTCACATG TATTTGTGCA TACTGAAAGA GCAAAGCTT
10081 CTTGATCTCA TTCCATTTTC AGGGTAAGTG TGCACATAAT
CCTATTCAAG GAAATGTTTA TGCATTGACT ATTATATCGG
10161 TCTCCTTAAC AAGCTTTTCA TATTATTCAG GAGTACAATT
GTTGATGTTG GCCAAGATGA AGCTACTGCT TGTTCACTTT
10241 TAAAATCAAT GGCTTTGAAG ATACATGACC TTGTTGGTGC
AAGGATGCAT CATCTGTCTG TATGCCAGTG GGAGGTGAAA
10321 CTCAAGTTGG ATTGTGATGG GCCTGCAAGT GGTACCTGGA
GAGTTGTGAC TACAAATGTT ACTAGTCACA CCTGCACCAT
10401 TGATGTAAAGT TGTCCCTACT GTTTTAGTAT TCTGTATATC
ACACACATGA AAGTATAAGT CAATGTGTGG TTCTTATATT

FIGURE 14A CONTINUED

10481 CTGAACTGCC ATCCATGTCA TTATGTTCTG AAGCACATAG
TACTTCTAAT GGTTTTAGAT CTACCGAGAA GTGGAAGATA
10561 CAGAATCGCA GAAGTTAGTA TACCATTCAA CCACTTCGGC
AGCTGGTCCT GGTCCGTTGC ATGGTGTTC ACTGAATAAT
10641 CCATATCAAC CTTTAAGTGT GATTGATCTA AAGCGCTGCT
CTGCTAGGAA CAACAGAACA ACATATTGCT ACGATTTTCC
10721 GCTGGTGAGT TGACCCCCGC CCCACCCCTC AGTGAATACA
CATCTGTAGT TTTTTGAACC TAAGCTGATA ATGAAAAAAA
10801 AAATGTAGGC ATTTGAACT GCACTGCAGA AGTCATGGCA
GTCCAACGGC TCTAGTGTTT CTGTAGGCAG TGGAAATAGT
10881 AAATCCTACG TGAAGGCAAC TGAGCTGGTG TTTGCTGAAA
AACATGGGTC CTGGGGCACT CCTATAGTTC CCATGGAACG
10961 TCCTGCTGGG CTCAATGACA TTGGTATGGT CGCTTGGATC
TTGGAGATGT CAACACCTGA ATTTCCCAAT GGCAGGCAGA
11041 TTATTGTTGT AGCAAATGAT ATTACTTTCA GAGCTGGATC
ATTCGGCCCA AGGGAAGATG CATTTTTTGA AGCTGTCACC
11121 AACCTGGCTT GTGAAAGGAA ACTTCCCCTT ATATACTTGG
CAGCAAATC TGGTGCTAGG ATTGGCATAG CTGATGAAGT
11201 AAAATCTTGC TTCCGTGTTG GGTGGTCTGA CGAAGGCAGC
CCTGAGCGAG GGTTTCAGTA CATCTATCTG ACTGAAGAAG
11281 ACTATGCCCC TATTAGCTCT TCTGTTATAG CACATAAGCT
GCAGCTAGAT AGCGGTGAAA TTAGGTGGAT TATTGACTCT
11361 GTTGTGGGCA AGGAGGATGG GCTTGGTGTG GAGAACATAC
ATGGAAGTGC TGCTATCGCC AGTGCTTATT CTAGGGCATA
11441 TGAGGAGACA TTTACACTTA CATTTGTGAC CGGACGGACT
GTAGGAATAG GAGCTTATCT TGCTAGACTT GGTATACGGT
11521 GCATACAGCG TCTTGACCAG CCGATTATTT TAACAGGGTT
TTCTGCCCTG AACAAGCTCC TTGGGCGGGA AGTGTACAGC
11601 TCCCACATGC AGCTTGGTGG TCCTAAGATC ATGGCGACCA
ATGGTGTGTG CCACCTGACT GTTCCAGATG ACCTTGAAGG
11681 TGTTTCCAAT ATATTGAGGT GGCTCAGCTA TGTTCTGCA
AACATTGGTG GACCTCTTCC TATTACCAAA CCTTTGGACC
11761 CTCCAGACAG ACCTGTTGCA TACATCCCTG AGAACACATG
CGATCCACGT GCAGCCATCC GTGGTGTAGA TGACAGCCAA
11841 GGGAAATGGT TGGGTGGTAT GTTTGACAAA GACAGCTTTG
TGGAGACATT TGAAGGATGG GCAAAAACAG TGGTTACTGG
11921 CAGAGCAAAG CTTGGAGGAA TTCCTGTGGG TGTCATAGCT
GTGGAGACAC AGACCATGAT GCAGCTTGTC CCTGCTGATC
12001 CAGGTCAGCT TGATTCCCAT GAGCGATCCG TTCCTCGGGC
TGGACAAGTG TGGTTCCCAG ATTCTGCAAC CAAGACAGCT
12081 CAGGCATTAT TAGACTTCAA CCGTGAAGGA TTGCCTCTGT
TTATCCTGGC TAACTGGAGA GGTTTCTCTG GTGGACAGAG
12161 AGATCTCTTT GAAGGAATTC TTCAGGCTGG GTCAACAATT
GTCGAGAACC TTAGGACATA TAATCAGCCT GCGTTTGTCT

FIGURE 14A CONTINUED

12241 ACATTCCTAT GGCTGGAGAG CTCGTGGAG GAGCTTGGGT
TGTGGTCGAT AGCAAAATAA ATCCAGACCG CATTGAGTGT
12321 TATGCTGAGA GGAAGTCCAA AGGTAATGTT CTCGAACCTC
AAGGGTTAAT TGAAATCAAG TTCAGGTCAG AGGAACTCCA
12401 AGACTGTATG GGTAGGCTTG ACCCCGAGTT GATAAATCTG
AAAGCAAAAC TCCAAGATGT AAAGCATGGA AATGGAAGTC
12481 TACCAGACAT AGAATCCCTT CAGAAGAGTA TAGAAGCAGC
TACGAAACAG TTGCTGCCTT TATATACCCA GATTGCAATA
12561 CGGTTTGCTG AATTGCATGA TACTTCCCTA AGAATGGCAG
CTAAAGGCGT GATTAAGAAA GTTGTAGACT GGAAGAATC
12641 ACGCTCTTTC TTCTATAAAA GGCTACGGAG AAGGATCTCT
GAAGATGTTT TTGCAAAAGA AATAAGACAT ATAGTCGGTG
12721 ACAACTTCAC TCACCAATCA GCAATGGAGC TCATCAAGGA
ATGGTACCTG GCTTCTCCAG CCACAGCAGG AAGCACTGGA
12801 TGGGATGACG ATGATGCATT TGTTGCCTGG AAGGACAGTC
CTGAAAATA CAATGGATAT ATCCAAGAGC TAAGGGCTCA
12881 AAAAGTGTCT CAGTCGCTCT CTGATCTCAC TGAATCCAGT
TCAGATCTAC AAGCATTCTC GCAGGGTCTT TCTACGCTAT
12961 TAGATAAGGT AAATTTGCTT ACAGTTTCAC CTTATTTTTT
ATTTGCAATT AACCTGTGGG CTACAACCGG TTGTATCTGT
13041 TGCATGTTAC TTTTAAAGAG CTCCTATTTT AATTGCATTG
CATAATGGC ATCTTATCAA TTCATGATTC TAATACATAC
13121 CCATTGCCTT CTCACGTATT CCGTCTTTGG ATGCCGATTC
AGATGGATCC CTCTCAAAGA GCGAAGTTTG TTCAGGAAGT
13201 CAAGAAGGTC CTTGGTTGA

FIGURE 14B

*P*Sorghum bicolor plastidal ACCase NC012875 (SEQ ID NO: 953)

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1 MSQLGLAAAA SKALPLLPNR QRSPAGTTFS SSALSRPSNR
RKSRTSLRD GGDGVSDVKK HSQSVRQGLA GIIDLPSSEA
81 SEVDISHGSE DPRGPPDSYQ MNGIINETHN GRHASVSKVV
EFCAALGGKT PIHSILVANN GMAAAKFMRS VRTWANDTFG
161 SEKAIQLIAM ATPEDMRINA EHIRIADQFV EVPGGTNNNN
YANVQLIVEV AERVGVSAVW PGWGHASENP ELPDALTAKG
241 IVFLGPPASS MNALGDKVGS ALIAQAAGVP TLAWSGSHVE
VPLECCLDAI PEEMYRKACV TTTEEAVASC QVIGYPAMIK
321 ASWGGGGKGI RKVHNDDEV RALFKQVQGEV PGSPIFIMRL
AAQSRHLEVQ LLCQYGNVA ALHSRDCSVQ RRHQKIIEEG
401 PVTVAPRETV KALEQAARRL AKAVGYVGAA TVEYLYSMET
GEYYFLELNP RLQVEHPVTE WIAEVNLPAA QVAVGMGIPL
481 WQIPEIRRFY GMDYGGGYDI WRKTAALATP FNFDEVDSQW
PKGHCVAVRI TSEDPDDGFK PTGGKVKEIT FKAKPNVWAY
561 FSVKSGGGIH EFADSQFGHV FAYGLSRSA ITNMALALKE
IQIRGEIHSN VDYTVDLLNA SDFRENKIHT GWLDTRIAMR
641 VQAERPPWYI SVVGALYKT VTTNAATVSD YVSYLTGQI
PPKHISLVNS TVSLNIEGSK YTIETVRTGH GSYRLRMNES
721 TVEANVQSLC DGGLLMQLDG NSHVIYAEAE AGGTRLQIDG
KTCLLQNDHD PSKLLAETPC KLLRFLVADG AHVDADVPIA
801 EVEVMKMCMP LLSPASGVVH CMMSEGQALQ AGDLIARLDL
DDPSAVKRAE PFDGIFPQMA LPVAASSQVH KRYAASLNAA
881 RMVLAGYEHN INEVVQDLIC CLDNPELPFL QWDELMSVLA
TRLPRNLKSE LEDKYKEYKL NFYRGKNVDF PSKLLRDIIE
961 ENLAYGSEKE KATNERLVEP LTNLLKSYEG GRESHAFIA
KSLFEEYLMV EELFSDGIQS DVIETLRHQH SKDLQKVVDI
1041 VLSHQGVRNK AKLVTALMEK LVYPNPVAYR DLLVRFSSLN
HKRYKLLALK ASELLEQTKL SELRASIARS LSDLGMHKGD
1121 MTIKDSMEDL VSAPLPVEDA LISLFDYSDA TVQQKVIETY
ISRLYQPHLV KDSIQMKFKE YGAIAFWEFS EGHVDTSNHG
1201 GTILGGKRWG SMVVLKSLES ASTAIVAALK DSAQYNSSEG
NTMHIALLSA ENESNMSGTS SDDQAQHRME KLTKILKDTN
1281 VASDLRAAGL KVISCIQORD EARMPPMRHTF LWLDEKSCYE
EEQILRHVEP PLSALLELDK LKVKGYNEMK YTPSRDRQWH
1361 IYTLRNTENP KMLHRVFFRT IVRQPNAGNK FTSAQVSDTE
VGGPEDSLSF TSNSILRSLM TAIEELELHA IRTGHSHMYL
1441 CILKEQKLLD LIPFSGSTIV DVGQDEATAC SLLKSMALKI
HDLVGARMHH LSVCQWEVKL KLDGCDGPASG TWRVVTNTVT
1521 SHTCTIDIYR EVEDTESQKL VYHSTTSAAG PGPLHGVALN
NPYQPLSVID LKRCSARNNR TTYCYDFPLA FETALQKSWQ
1601 SNGSSSVSGS GNSKSYVKAT ELVFAEKHGS WGTPIVPMER
PAGLNDIGMV AWILEMSTPE FPNGRQIIVV ANDITFRAGS
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FIGURE 14B CONTINUED

1681 FGPREDAFFE AVTNLACERK LPLIYLAANS GARIGIADEV
KSCFRVGWSD EGSPERGFQY IYLTEEDYAR ISSSVIAHKL
1761 QLDSGEIRWI IDSVVGKEDG LGVENIHGSA AIASAYSRAY
EETFTLTFTVT GRTVGIGAYL ARLGIRCIQR LDQPIILTGF
1841 SALNKLLGRE VYSSHMLGG PKIMATNGVV HLTVPDDLEG
VSNILRWLSY VPANIGGPLP ITKPLDPPDR PVAYIPENTC
1921 DPRAAIRGVD DSQGKWLGGM FDKDSFVETF EGWAKTVVTG
RAKLG GIPVG VIAVETQTM QLVPADPGQL DSHERSVPRA
2001 GQVWFPDSAT KTAQALLDFN REGLPLFILA NWRGFSGGQR
DLFEGILQAG STIVENLRTY NQPAFVYIPM AGELRGGAWV
2081 VVDSKINPDR IECYAERTAK GNVLEPQGLI EIKFRSEELQ
DCMGRLDPEL INLKAKLQDV KHGNGSLPDI ESLQKSIEAR
2161 TKQLLPLYTQ IAIRFAELHD TSLRMAAKGV IKKVVDWEES
RSFFYKRLRR RISEDVLAKE IRHIVGDNFT HQSAMELIKE
2241 WYLASPATAG STGWDDDDAF VAWKDSPENY NGYIQELRAQ
KVSQSLSDLT DSSSDLQAFS QGLSTLLDKM DPSQRAKFVQ
2321 EVKKVLG

FIGURE 15

Oryza sativa subsp. Japonica plastidal ACCase NP001407229.1
(SEQ ID NO: 954)

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1 MTSTHVATLG VGAQAPPRHQ KKSAGTAFVS SGSSRPSYRK
NGQRTSLRE ESNGGVSDSK KLNHSIRQGL AGIIDLPNDA
81 ASEVDISHGS EDPRGPTVPG SYQMNGIINE THNGRHASVS
KVVEFCTALG GKTPIHSVLV ANNGMAAAKF MRSVRTWAND
161 TFGSEKAIQL IAMATPEDLR INAEHIRIAD QFVEVPGGTN
NNNYANVQLI VEIAERTGVS AVWPGWGHAS ENPELPDALT
241 AKGIVFLGPP ASSMHALGDK VGSALIAQAA GVPTLAWSGS
HVEVPLECCL DSIPDEMYRK ACVTTTEEAV ASCQVVGYP
321 MIKASWGGGG KGIRKVHND EVRTLFKQVQ GEVPGSPIFI
MRLAAQSRHL EVQLLCDQYG NVAALHSRDC SVQRRHQKII
401 EEGPVTVAPR ETVKELEQAA RRLAKAVGYV GAATVEYLYS
METGEYYFLE LNPRLQVEHP VTEWIAEVNL PAAQVAVGMG
481 IPLWQIPEIR RFGMNHGGG YDLWRKTAAL ATPFNDFEVD
SKWPKGHCVA VRITSEDPDD GFKPTGGKVK EISFKSKPNV
561 WAYFSVKSGG GIHEFADSQF GHVFAYGTTR SAAITTMALA
LKEVQIRGEI HSNVDYTVDL LNASDFRENK IHTGWLDTRI
641 AMRVQAERPP WYISVVGAL YKTVTANTAT VSDYVGYLTK
GQIPPKHISL VYTTVALNID GKKYTIDTVR SGHGSYRLRM
721 NGSTVDANVQ ILCDGGLLMQ LDGNSHVIYA EEEASGTRLL
IDGKTCMLQN DHDPKLLAE TPCKLLRFLV ADGAHVDAV
801 PYAEVEVMKM CMPLSPASG VIHVMSEGQ AMQAGDLIAR
LDLDDPSAVK RAEPFEDTFP QMGLPIAASG QVHKLCAASL
881 NACRMILAGY EHDIDKVPE LVCYCLDTPEL PFLQWHEELMS
VLATRLPRNL KSELEGKYEE YKVKFDSGII NDFPANMLRV
961 IIEENLACGS EKEKATNERL VEPLMSLLKS YEGGRESHAH
FVVKSLFEY LYVEELFSDG IQSDVIERLR LQHSKDLQKV
1041 VDIVLSHQSV RNKTKLILKL MESLVYPNPA AYRDQLIRFS
SLNHKAYYKL ALKASELLEQ TKLSELRARI ARSLSELEMF
1121 TEESKGLSMH KREIAIKESM EDLVTAPLPV EDALISLFDC
SDTTVQQRVI ETYIARLYQP HLVKDSIKMK WIESGVIALW
1201 EFPEGHFDAR NGGAVLGDKR WGAMVIVKSL ESLMAIRFA
LKETSHYTSS EGNMMHIAL GADNKMHIQ ESGDDADRIA
1281 KLPLILKDNV TDLHASGVKT ISFIVQRDEA RMTMRRTFLW
SDEKLSYEEE PILRHVEPPL SALLELDKLV VKGYNEMKYT
1361 PSRDRQWHYI TLRNTENPKM LHRVFFRTL V RQPSVSNKFS
SGQIGDMEVG SAEPLSFTS TSILRSLMTA IEELELHAIR
1441 TGSHMYLHV LKEQKLLDLV PVSGNTVLDV GQDEATAYSL
LKEMAMKIHE LVGARMHHLS VCQWEVKLKL DCDGPASGTW
1521 RIVTTNVTSH TCTVDIYREM EDKESRKL VY HPATPAAGPL
HGVALNNPYQ PLSVIDLKRC SARNNRTTYC YDFPLAFETA
1601 VRKSWSSSTS GASKGVENAQ CYVKATELVF ADKHGSWGTP
LVQMDRPAGL NDIGMVAWTL KMSTPEFPPSG REIIVVANDI
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FIGURE 15 CONTINUED

1681 TFRAGSFGPR EDAFFEAVTN LACEKKLPLI YLAANS GARI
GIADEVKSCF RVGWSDDGSP ERGFQYIYLS EEDYARIGTS
1761 VIAHKMQLDS GEIRWVIDSV VGKEDGLGVE NIHGSAAIAS
AYSRAYKETF TLTFVTGRTV GIGAYLARLG IRCIQRLDQP
1841 IILTGYSALN KLLGREVYSS HMQLG GPKIM ATNGVVHLTV
SDDLEGVSNI LRWLSYVPAY IGGPLPV TTP LDPPDRPVAY
1921 IPENSCDPRA AIRGVDDSQG KWLGGMF DDKD SFVETFEGWA
KTVVTGRAKL GGIPVGVIAV ETQTMMQTIP ADPGQLDSRE
2001 QSVPRAGQVW FPD SATKTAQ ALLDFNREGL PLFILANWRG
FSGGQRDLFE GILQAGSTIV ENLR TYNQPA FVYIPMAAEL
2081 RGGAWVVVDS KINPDRIECY AERTAKGNVL EPQGLIEIKF
RSEELQDCMS RLDPTLIDLK AKLEVANKNG SADTKSLQEN
2161 IEARTKQLMP LYTQIAIRFA ELHDTSLRMA AKGVIKKVVD
WEESRSFFYK RLRRRISE DV LAKEIRAVAG EQFSHQPAIE
2241 LIKKWYSASH AAEWDDDDAF VAWMDNPENY KDYIQYLKAQ
RVSQSLSSLS DSSSDLQALP QGLSMLLDKM DPSRRAQLVE
2321 EIRKVLG

FIGURE 16A

cDNA sequence of *Hordeum vulgare* plastidal ACCase NC058519.1
(SEQ ID NO: 955)

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1 ATGGGATCCA CACATTTGCC CATTGTCGGA TTAAATGCCT
CCACAACACC ATCGCTATCC ACTATTGCGC AGATAAATTC
81 AGCTGGTGCT GCATTCCAAC CATCTGCCCC TTCTAGAAAC
TCCAAGAAGA AAAGTCGTCG TGTCCAGTCA TTAAGGGATG
161 GAGGCGATGG AGGCGTGTCA GACCCTAACC AGTCTATTTCG
CCAAGGTAAC CTGAAAACCA TTTCCTTTCT ACAAAGTCA
241 CTTTGTTGTC ATCCTCAACT TGTATAGATA CTTTTATTGA
CTCAGAGCAT GTTGGTTTTA GTGTAAGATA TCTCAATGCT
321 AGATCACATA ATGGCGGTGA TTGACCTTGT TAAAGATGCA
AATGACTGCA GCAATATTTA CCTATTTTTT TATGTGATAT
401 AATAGCACTT TCCTATAATG AGTACCCAAT ATTTCTTGAT
TAAATGGTTT TAATTGGAAG GATGTTTAAAT ATTGAAAATG
481 ATGTTTTATA AGGGAAAGGA ACATGGAAGT GCAAGAATAC
ATGTAAGCAG CATTTTAATT ATGTATGACT GAATCATTTT
561 CCTTACATAA TACTCCCTCC GTAAAGAAAT ATAAAAGCGT
TTAGATCACT AGTGACGTTT CTGGTAATTT ACTAGCATGA
641 AGAACAATAA CATTGTGAAA GTTGGCACCA GTGCTTCTTC
TTAGCTATTT TGTAAGCTTC CTCAGTTTCT AATGCTTATC
721 TGGATGTAGG CCTCGCCGGC ATCATCGACC TCCCAAAGGA
GGGCACATCT GCTCCGGAAG TGGATATTTT ACAGTAAGTA
801 CTTGAGCATT TTAAAATTAG CCTAGCTCTC TTTAAAATGG
AAAAAATGTA TAGTTCAATC TAGAATTATT CTAGATTATG
881 CTGATTTTAT TATTCGCATA TGCTGATATA TTTGTAGTTT
TTTTTACTGA ACTACATAAT AGTTGCTATA CACTGCATTT
961 GCTCAGGCAC ATCACTTTTG CACTGCATGT AGTATTTTTG
GGCAAACACA AAACACTTTC GGAAATTCTT TTGCCTATAA
1041 TTTTAAAAAT AACAATTTAA GTACCATCTG AAACCTGTAC
CCACATGGCG GATGAAAGCT CATTGAACT TTTTGATTTA
1121 TTGTAGCCAA TTATTTGTGA TGTTATATTG TTATATGGTC
GCCACTGTAA TGATTTTGTT CTTTTTTTTT TAGTGGGTCC
1201 GAAGACCCCA GGGGATCCTA CCAAATGAAT GGGATACTGA
ATGAAGCACA TAATGGGAGG CATGCTTCCC TGTCTAAGGT
1281 TGTCGAATTT TGTATGGCAT TGGGCGGCAA AACACCCATT
CACAGTGTAT TAGTTGCCAA CAATGGAATG GCAGCAGCTA
1361 AGTTCATGCG AAGTGTCGGG ACATGGGCTA ATGAAACATT
TGGGTCAGAG AAGGCAATTC AGTTGATAGC TATGGCTACT
1441 CCAGAAGACA TGAGGATAAA TGCAGAGCAC ATTAGAATTG
CTGATCAGTT TGTTGAAGTA CCCGGTGGGA CAAACAATAA
1521 CAACTATGCA AATGTCCAAC TCATAGTGGA GGTTAGTATT
GCTCATCCGT CGATGTGCAA TCAATGCACA AGTTGTTTAT
1601 TTAGCATGAC ATGACAGTTT TGCTGTTTCA GATTGCAGTG
AGAACCGGTG TTTCTGCTGT TTGGCCTGGT TGGGGCCATG
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FIGURE 16A CONTINUED

1681 CATCTGAGAA TCCTGAACTT CCAGATGCTC TAACTGCAAA
TGGAATTGTT TTTCTTGGGC CACCGTCATC ATCAATGAAC
1761 GCACTAGGTG ACAAGGTTGG TTCAGCTCTC ATTGCTCAAG
CAGCAGGGGT TCCGACTCTT CTTGGAGTG GATCACAGGT
1841 GAATCTCATA TTCTCTGATA ACTCATCGTC TGATCTTTGC
ACTGGACACT TTTTATAAC CGAAATACAC TGTATTATAG
1921 GTGGAAATTC CATTAGAAGT TTGTTTGGAC TCGATACCTG
AGGAGATGTA TAGGAAAAGCT TGTGTTAGTA CTACGGAGGA
2001 AGCACTTGCA AGTTGTCAGA TGATTGGTTA TCCCGCCATG
ATTAAAGCTT CATGGGGTGG TGGTGGTAAA GGGATCAGAA
2081 AGGTACGTCA TTCATTGATT GGACTATCCA AAAGATTGTG
TGGGCTGTGT GATATTTTAT GCCCAGATTT AGCTCTAACC
2161 TTTTAAACAT ATTAAC TAA TATCTGTTGC AGGTTAATAA
CGACGATGAC GTCAGAGCAC TGTTTAAAGCA AGTGCAAGGT
2241 GAAGTTCCTG GCTCCCCAAT ATTTATCATG CGACTTGCAT
CTCAGGTTAG ACTTCTCTGG AAGTTGCATT TTTCCAAGCA
2321 TGTTGTTCCA GTTGTACTAT ATTATATGCC TGGAAGCTTC
ATCTGTTCTT CTTGCAGGC TAGAAACGTA TCCTGGAACC
2401 TGTGCTCATA TGGTATATTA TGTCTAATC CTCCCCTTTT
TTCTTTTCTA GAGTCGACAT CTTGAAGTTC AGTTGCTTTG
2481 TGATCAATAT GGCAATGTAG CTGCACTTCA CAGTCGTGAT
TGCAGTGTGC AACGGCGACA CAAAAGGTA CGCTGGTCCA
2561 GATCTGAAAA CATCACTTGT ATTACATGTT CTAATTCATA
CCTGTAGCGT TGATCAAAAAG AAGGATTGAT TGCGTCCATT
2641 TTTTGTTTAT AACAGATTAT TGAGGAAGGA CCAGTTACTG
TTGCTCCTCG TGAGACAGTG AAAGAGTTAG AGCAAGCAGC
2721 AAGGAGGCTT GCTAAGGCTG TGGGTTATGT TGGTGTGCT
ACTGTTGAAT ATCTCTACAG CATGGAGACT GGTGAATACT
2801 ACTTTCTGGA GCTTAATCCA CGATTGCAGG TATGTTCTTT
TGAACATTCC TCAGGACTTA CTTTTTGTCG GCAGTCGTTT
2881 ACATTGTTAA GTGGCATAA TTCAGGTTGA GCATCCAGTC
ACCGAGTGGA TAGCTGAAGT AACTTGCCT GCAGCTCAAG
2961 TTGCAGTTGG AATGGGTATA CCCCTTTGGC AGGTTCCAGG
TAATAATCAT ATTATTGTAA GTTTTTTAGT TACTACCTGT
3041 GTTATTTCTG TGCCTAACTT TCTCCTTATA CAGAGATCAG
ACGTTTCTAT GGAATGGACA ATGGAGGAGG CTATGACATT
3121 TGGACGAAAA CAGCAGCTCT TGCTACTCCA TTAACTTTG
ATGAAGTCGA TTCTCAATGG CCGAAGGGTC ATTGTGTAGC
3201 AGTTAGGATA ACCAGTGAGG ATCCAGATGA CGGATTCAAG
CCTACCGGTG GAAAAGTAAA GGTGAGATTT CCTGATGACG
3281 TCTATGGTTC AAGCACATTA GATTTGTAAC CTGACTGGAT
CTTGTTTTTC TTATAATTCA GGAGATCAGT TTTAAAAGCA
3361 AGCCAAATGT TTGGGCCTAT TTCTCTGTTA AGGTAAGCTG
TTCATGGCTC TGTTGCACTG TTATATTGTT AAGTTGTGCA

FIGURE 16A CONTINUED

3441 GAAAATTGGG CTGCATTTTT TTTCCGAACT AGTTTCTTCA
TCTGGGCTTT GGCTATGTAT TAACCAAATC GAACACATTG
3521 TCTTCCCCC TTTTATCTGT TTTCAAGTCCG GTGGAGGCAT
TCATGAATTT GCTGATTCTC AGTTTGGTAT GCAAAATTTG
3601 ACCCCGTGAA TATTCCTCTT TGCTATTTAT ATTGGTCCTT
ACGTTTGGAA GATTACTCTT TTCATTACAG GACATGTTTT
3681 TGCATACGGA GTGTCTAGAG CAGCAGCAAT AACCAACATG
TCTCTTGCGC TAAAAGAGAT TCAAATTCGT GGAGAAATTC
3761 ATTCAAATGT TGATTACACA GTTGATCTCT TGAATGTAAG
AAATAACACC TGTATACTGA ATCCCTGCTT TTGATGTAAT
3841 ACAACCATTT TACATCTGGC ATTCCTTTAA AGTAATCCCA
TGCCTTCATT TTCTGTATCT CTAAATCAGG CCTCAGACTT
3921 CAAAGAAAAC AGGATTCATA CTGGCTGGCT GGATAACAGA
ATAGCAATGC GAGTCCAAGC TGAGAGGCC CCCTGGTATA
4001 TTTCAAGTGGT TGGAGGAGCT CTATATGTAA GAAACCATGC
CCCTCTTACT GCAGCTTTTG CCAAACCAAT TGTGAAAAAC
4081 AGTTAGTTGT TTAATGCAA TTAGTGTGTTT GTGCTGCAGA
AAACAATAAC GAGCAACACA GACTGTGTT CTGAATATGT
4161 TAGTTATCTC GTCAAGGGTC AGATTCCACC AAAGGTAGTG
TTTTAATGGG CTTGAACTCT GGATATTGCT TGAAGATGAA
4241 CGTTGTTGAA TGTTGACCAA TTTCTTTTGT GCAGCATATA
TCCCTTGTC ATTCAACTGT TTCTCTGAAT ATAGAGGAAA
4321 GCAATATAC AGTAAGTCTT GCATTCCTTA AAAAAAGTCA
GTCGTTGTAA TGAAGTAACA GCTATCATCG ATGCTCATGT
4401 ACACCATGTC ACAGATTGAA ACTATAAGGA GCGGACAGGG
TAGCTATAGG TTGCGAATGA ATGGATCAGT TATTGAAGCA
4481 AATGTCCAAA CATTATGCGA CGGTGGACTT TTAATGCAGG
TGATTTTGTC TTGTTTTTAT ACCTGCCCAT AAGTATGATA
4561 TATAATGTTG TGAAGTACTG GTGAAAGAGT TCTGATTCTG
TAGTTCTAAT GTCTGCAGTT GGATGGAAAC AGTCATGTAA
4641 TTTATGCTGA AGAAGAGGCC GGTGGTACAC GTCTTCTAAT
TGATGGGAAG ACATGCTTGT TACAGGTAAT AATTGTCTGT
4721 TTATTCCTTT CTTTCTAACT AATCTTGGTG TTTGATTGTA
TATTTTCCAC TTCATTAGCA TTCATTTCTT TCCATTTTCA
4801 TTAAAGAAAAC TGAATTATGA TGTTTATTTG TAGTCATGTG
CCATAAGAAA CCACAATTAA ATCATTGTGA CGGACTAATT
4881 GATGTCGCAA CAAGCTATTG TGGTAAATGT GACTGCCTAA
GCAGCCAAAC AAACCAGGTC ATAATGAGAA GCGTCATCAA
4961 CCGCATGTCT TGTGAAGTTG TGATGTAAAG ACAACTTACA
TAGCTGTAAT AAACCTAATA GGGTTCCAGT TTTTGTATTG
5041 CTACTTCTGT TTCTTAATTT GAGTTACTAC CGACGACAAT
GTTTTGTAAT TATGACAATC ATGAATATAT TATAATCAAG
5121 CTGTGATAAA CTTTGTGATG AACCTTCTAG GGCATCATGT
TACCGCATCA TTTTTTTGGT GATAAAAAAA GAACTATTA

FIGURE 16A CONTINUED

5201 ATACTTTTATG AATTCTTGAT CATGCTTCAT TGTATCCTTG
TGTGAATAAA TGACACATCG TTCTTGCAGA ATGATCACGA
5281 TCCTTCAAGG TTATTAGCTG AGACACCCTG CAAACTTCTT
CGTTTCTTGG TTGCCGATGG TGCTCATGTT GAAGCTGATG
5361 TACCATATGC GGAAGTTGAG GTTATGAAGA TGTGCATGCC
CCTCTTGTCG CCTGCTGCTG GTGTCATTAA TGTTTTGTTG
5441 TCTGAGGGCC AGCCTATGCA GGTTACATCA CAACGTTTCC
ATTGCTTCTG CTGTACATAA CAACTGCACG TAAAGTATCT
5521 GAGCTTAATA TATTTTGTGT AGGCGGGTGA TCTTATAGCA
AGACTTGATC TTGATGACCC TTCTGCTGTG AAGAGAGCTG
5601 AGCCATTTAA CGGATTTTTT CCAGAAATGA GCCTTCCTAT
TGCTGCTTCT GGCCAAGTTC ACAAAGATG TGCCACAAGC
5681 TTGAATGCTG CTCGGATGGT CCTTGCAGGA TATGATCACC
CGATCAATAA AGTAAGCATC AAGAACCTTG CAGTACCTAT
5761 ATTTCTGGTT TTTTGCCTTC TGTTTCTTGT TCTTTTGAAA
CACCTTTTTT ATATGTTATG AATTCTGGAT TATCCCTATT
5841 CCTCCTTGGC GTTGGCTCCC TTCCACTACA AACTGTTCG
TAACCTATGG AAGTTTATTA TGCCTGTCTT GGAAAATCTT
5921 GATTTGGGTG CTCTTTCTCC TATGTTACC ATGCTCAGTA
CTTACTTTAC GCAATGTTTT TACCCTTGTG CTATTTCCCC
6001 CTCTTTCAGC AATTTATATT TTTGTTTGAT TTTTTTCCA
ATCATAACTG TTCAGCATTT GATTACTTTT TTCATTGTAC
6081 TTGGTTTTCT TTTCAGGTTG TACAAGATCT GGTGTCCTGT
CTAGATGCTC CTGACCTTCC TTTCTTACAA TGGGAAGAGC
6161 TTATGTCTGT TTTAGCAACT AGACTTCCAA GGCTTCTTAA
GAGTGAGGTA TGTCATAATA GATGTGATAT GTAGCGTCTG
6241 GTTAGATTTT AGTCTGCTAC GTGGATTTTT TTATTGATGA
TATAGAAGGG TTGTATCACT TCTTATAAGC ATCATGGCAC
6321 TCTATCTTGT TAATTTTTCA TTTTACATTG TCCATTCACT
GGTAATTTGC CGTAGCTTCT TGTGTAACCT TAAAATTAT
6401 ATTTTCCTAA TATCAAACT CGAAATATTT CATTTTAATT
CTTCTTTGCT TGGAACATTT GGTACTTCAT CTCATCAATT
6481 CACACTGTAC CTCAGAAGTT CTGATTTGAT TTTAATCCAT
TTCTTGTTTA TTGATCTTTA TATATTTTTG TGTGTTCTAC
6561 CTCAACGGTT TCTACTTTTT ATGCATCCAG TTGGAGGGTA
AATACAGTGA ATATAAGTTA AATGTTGAGC ATGGAAAGAA
6641 GAAGGATTTT CCTGCCAAGA TGCTAAGAGA GATAATCGAG
GTCAGTATTA GGTTCCTTTT ATGGTATCCT TGTCTAGAAC
6721 TTATACCGTT CTTTGTAACA TGTCTGTTG TAGGAAAATC
TTGCACATGG TTCTGAGAAG GAAATTGCTA CAAATGAGAG
6801 GCTTGTTGAG CCTCTTATGA GTCTGCTGAA GTCATATGAG
GGTGGGAGAG AAAGCCATGC AACTTTTATA GTGAAGTCCC
6881 TTTTCGAGGA GTATCTCTCG GTTGAGGAAC TATTCAGTGA
TGGCATTGAG GTTATCTTGC ATTCCAAAAC TGAGATCTAC

FIGURE 16A CONTINUED

6961 TAGATATCAT TGTTTTAAAA GGACTTTTTTC CCTTATATTT
ACAAGAATAT TATCAACTAA TATTTATGCA CATATTAATT
7041 TCATCAGAAAT CTATCAGTAA TTAAGTAGCA AATGATTTTA
GTTGTAAAAA AAGTAGCAAA TAGTTTTTAT ATGGCTATGG
7121 CTTATTTGTT GTTTTAACT GTCATATTTT GTAGTCCGAT
GTGATTGAAC GCCTGCGCCA ACAACATAGT AAAGATCTCC
7201 AGAAGGTTGT TGACATTGTG TTGTCTCACC AGGTGAATAT
TTTGTGATCT GATGGCTTAG GGCAAATGAT GGCTGAAGCA
7281 ATCTTCATTA CTGATAGTTT GATTTTGTTG TAGGGTGTGA
GAAACAAAAC TAAGCTGATA CTAACACTCA TGGAGAACT
7361 GGTCTATCCA AACCCTGCTG CCTACAAGGA TCAGTTGACT
CGCTTTTCTT CCCTCAACCA CAAAAGATAT TATAAGGTGA
7441 CAATGGCGAC CTAAAATAAC GGAAGCTTTT GAATCATATT
ATTTTCTGAT ATCTCAGCCT AATCAATTAC CCGCATCATA
7521 ATAAATGCAG TTGGCCCTTA AAGCTAGCGA GCTTCTTGAG
CAAACCAAGC TTAGCGAGCT CCGCACAAGT ATTGCAAGGA
7601 GCCTCTCAGA ACTGGAGATG TTTACTGAAG AAAGGACGGC
TATTAGTGAG ATCGTGGGAG ATTTAGTGAC TGCCCCACTG
7681 CCAGTTGAAG ATGCACTGGT TTCTTTGTTT GATTGTAGTG
ATCAAACCTCT TCAGCAGAGG GTGATCGAGA CATACATATC
7761 TCGATTATAC CAGGTATACA TTTTTTTGTT TTGTTTTTGA
ACTTGATCAT GCTCTCCCTT TGCATTTCTG GGAAGCATAC
7841 ACTAAAGTTC CTATTGAAAC AAGATGCTTA GTGCTTCTTA
AAAGAACATC TGAGAGAATC TAGGTGTGGA AATATTTGAT
7921 TGTACTGCAT CTTTGCTCTT CAAGTTGGCT AACACCAATA
ATATTTTCAG CCTCATCTTG TGAAGGATAG TATCCAGCTG
8001 AAATATCAGG AATCTGGTGT TATTGCTTTA TGGCAATTCA
CTGAAGGGCA TTCAGAGAAG AGATTGGGTG CTATGGTTAT
8081 TGTGAAGTCT CTGGAATCTG TATCAGCAGC AATTGGAGCT
GCACTAAAGG ATACATCACG CTTTTCAAGC TCTGAGGGTA
8161 ACATAATGCA TATTGCTTTG TTGGGCGCTG ATTATCAAAT
GCATGGAAC GAAGACAGGT ATGTTTATGT GCAATATTAG
8241 TGGTAATCAG CTGTATCTGG TTATTAGTAT TTGGTGGAAT
TCCTTTAATT ATTTAACTCA TTCCTTTCAG TGGTGATAAC
8321 GATCAAGCTC AAGTTAGGAT AGACAACTT TCTTCCACAC
TGGAACAACA TACTGTCACA GCTGATCTCC GTGCTGCTGG
8401 TGTGAAGGT ATTAGTTGCA TTGTTCAAAG GGATGGAGCA
CTCATGCCA TGCGCCATAC CTTCTCTTG TCGGATGAAA
8481 AGCTTAGTTA CGAGGAAGAG CCGCTTCTAC GGCACGTTGA
GCCTCCTCTT TCTGCTCTT TTGAGTTGGT ATGTAAGTGT
8561 ATCAAAACGC CTGCATTTCT TTGATACACT ATCCACATGC
TTTAATTATC TTGTTTGCTA TTTGTATTTA TTTAGCCTGT
8641 TGTGGTTACA GGGTAAGTTG AAAGTGAAAG GATACAATGA
AGTGAAGTAT ACGCCGTCAC GTGATCGTCA GTGGAACATA

FIGURE 16A CONTINUED

8721 TACACGCTTA GAAATACAGA AAACCCCAAA ATGTTGCACA
GGGTGTTTTT CCGAACTCTT GTCAGGCAAC CCAGTGCCTC
8801 CAACAAATTC ACATCAGGCC ATATCAGTGA TGTGAAGTA
GGAAGTGCGG AGGAATCTCT TTCATTTACA TCGAGCAGCA
8881 TATTAAGATC GTTGATGACT GCTATAGAAG AATTGGAGCT
TCATGCGATT AGGACAGGTC ACTCTCATAT GTATTTGTGC
8961 ATATTGAAAG AGCAAAAGCT TCTTGATCTT GTTCCTGTTT
CAGGGTAAGC CTGCATATTG TCATTTTGTG GCACATAATA
9041 GGTCTTCCTC TTGTGTTTTG CCTTCAATGA ACTTTTCATC
TTACTCAGGA ACAAAGTTGT GGATGTTGGC CAAGATGAAG
9121 CTACTGCATG CTCGCTTCTG AAAGAAATGG CTCTAAAGAT
ACATGAACTT GTGGGCGCAA GGATGCACCA TCTTTCTGTA
9201 TGCCAATGGG AAGTGAACT TAAGTTGGAC AGTGACGGTC
CTGCCAGTGG TACCTGGAGA GTTGTAACAA CCAATGTTAC
9281 CAGTCATACC TGCCTGTGG ATGTAAGTTC CTTCCCCTTA
CATCTTGTTC TTCTGCGTGT AACCAGCAAA ACTGAAGTGA
9361 ACTTATAACA TTTATTCATA GAGCTATTAT GTTCATTTTG
CTGTCATTTT AACCTAATTA TGTTTGGAAG CTCATGGTGC
9441 TTTTAATGCT TTCAGATCTA CCGGGAAGTT GAAGAGACAG
AATCACAGAA ACTAGTATAC CACTCTGCTG CCTTGTCATC
9521 TGGTCCTTTG CATGGGATCG CACTGAATAA TCCATATCAG
CCTTTGAGTG TTATTGATCT GAAACGTTGC TCTGCTAGAA
9601 ACAACAGAAC TACATACTGC TATGATTTTC CGTTGGTGAG
TATCTCTCTT TCTCGCTATA TATGTATCTA CTGTATTAGT
9681 AGATTCTTAG TGACGTATTA CATGTCCAAA CGCTGACAAG
AACTCAAATT GTAGGCATTT GAACTGCAG TGCAGAAGTC
9761 ATGGTCTAAC ATTTCTAGTG ACAGTAACCG ATGTTACGTT
AAAGCGACAG AGCTGGTGTT TGCTCACAAG CATGGATCAT
9841 GGGGCACTCC TGTAATTCCT ATGGAGCGTC CTGCTGGGCT
CAATGACATT GGTATGGTAG CTTGGATCTT GGACATGTCC
9921 ACTCCTGAAT ATCCCAATGG CAGGCAGATT GTTGTCATCG
CAAATGATAT TACTTTTAGA GCTGGATCAT TTGGCCCAAG
10001 GGAAGATGCA TTTTTTGAAA CTGTTACCAA TCTAGCATGT
GAGAGGAAGC TTCCTCTCAT CTACTTGGCA GCAAACTCTG
10081 GTGCTCGTAT TGGCATAGCA GATGAAGTGA AATCTTGCTT
CCGTGTTGGA TGGTCTGATG ATGGCAGCCC TGAACGTGGG
10161 TTCCAGTACA TTTATCTGAC TGAAGAAGAC CATGCTCGTA
TTAGCGCTTC TGTTATAGCG CACAAAATGC AGCTTGATAA
10241 TGGTGAAGTT AGGTGGGTTA TTGATTCTGT TGTGGGCAAG
GAGGATGGAC TAGGTGTGGA GAACATACAT GGAAGTGCTG
10321 CTATTGCCAG TGCTTATTCT AGAGCATATG AGGAGACATT
TACGCTTACG TTTGTGACTG GACGGACTGT TGAATAGGA
10401 GCGTATCTTG CTCGACTTGG CATACGGTGC ATACAACGTA
CTGACCAGCC AATTATCCTA ACTGGGTTCT CTGCGCTGAA

FIGURE 16A CONTINUED

10481 CAAGCTTCTT GGCCGGGAAG TGTACAGCTC CCATATGCAG
TTGGGTGGCC CCAAAATCAT GGCACGAAT GGTGTTGTCC
10561 ATCTGACTGT TTCAGATGAC CTTGAAGGTG TTTCTAATAT
ATTGAGGTGG CTCAGCTATG TTCCTGCCAA CATCGGTGGA
10641 CCTCTTCCTA TTACAAAATC TTTGGACCCA CCTGATAGAC
CCGTTGCATA CATCCCTGAG AATACATGTG ATCCCCGTGC
10721 AGCCATCAGT GGCATTGATG ACAGCCAAGG GAAATGGTTG
GGGGGCATGT TCGACAAAGA CAGTTTTGTT GAGACATTTG
10801 AAGGATGGGC GAAGTCAGTA GTTACTGGTA GAGCGAAACT
GGGAGGGATT CCAGTGGGTG TTATAGCTGT GGAGACACAG
10881 ACTATGATGC AGCTCATCCC TGCTGATCCA GGCCAGCTTG
ATTCCCATGA GCGGTCTGTT CCTCGTGCTG GGCAAGTCTG
10961 GTTTCCAGAT TCTGCTACCA AGACAGCGCA GGCGATGTTG
GACTTCAACC GTGAAGGATT GCCTCTGTTC ATCCTTGCTA
11041 ACTGGAGAGG CTTCTCTGGT GGGCAAAGAG ATCTTTTTGA
AGGAATTCTT CAGGCTGGGT CAACAATTGT TGAGAACCTT
11121 AGGACATACA ATCAGCCTGC CTTTGTATAT ATCCCCAAGG
CTGCAGAGCT ACGTGGAGGG GCTTGGGTTG TGATTGATAG
11201 CAAGATAAAT CCAGATCGCA TTGAGTTCTA TGCTGAGAGG
ACTGCAAAGG GCAATGTTCT CGAACCTCAA GGTTTGATTG
11281 AGATCAAGTT CAGGTCAGAG GAACTCCAAG AGTGCATGGG
CAGGCTTGAT CCAGAATTGA TAAATCTTAA GGCAAACTC
11361 CAGGGAGCAA AGCATGAAAA CGGAAGTCTA TCCGAGTTAG
AATCCCTTCA GAAGAGCATA GAAGCCCGTA AGAAACAGTT
11441 GCTGCCTTTG TATACTCAA TTGCGGTACG GTTTGCTGAA
TTGCATGACA CCTCCCTTAG AATGGCTGCT AAAGGTGTGA
11521 TTAAGAAAGT TGTGGACTGG GAAGATTCTA GGTCGTTCTT
CTACAAGAGA TTAAGGAGGA GGATATCCGA GGACGTTCTT
11601 GCAAAGGAAA TTAGAGGTGT AAGTGGCAAG CAGTTTTCTC
ACCAATCAGC AATCGAGCTG ATCCAGAAAT GGTACTTGGC
11681 TTCTAAGGAG GCTGAAACAG GAAGCACCGA ATGGGATGAT
GATGATGCTT TTGTTGCCTG GAGGGAAAAC CCTGAAAAC
11761 ACCAGGAGTA TATCAAAGAA CTCAGGGCTC AAAGGGTATC
TCAGTTGCTC TCAGATGTTG CAGACTCCAG TCCAGATCTA
11841 CAAGCCTTGC CACAGGTCT TTCTATGCTA CTAGAGAAGG
TACGCATACT TACTGTTTTA CTGCATCTG TTTTACATGA
11921 TAGTAATTTA TCAAATTTT TTTTGCCAT CTTCAAAATT
ATGCATAGTG TCTTACCATA TAATGTAAAT GTTTTTTCTT
12001 TGGCCACTTG TTCAGATGGA TCCCTCAAGG AGAGCACAGT
TTGTTGAGGA AGTCAAGAAG GTCCTTAAAT GA

FIGURE 16B

Hordeum vulgare plastidal ACCase NC058519.1 (SEQ ID NO: 956)

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1  MGSTHLPIVG FNASTTPSLS TIRQINSAGA AFQPSAPSRN
SKKKSRRVQS LRDGGDGGVS DPNQSIRQGL AGIIDLPKEG
81  TSAPEVDISH GSEDPRGSYQ MNGILNEAHN GRHASLSKVV
EFCMALGGKT PIHSLVANN GMAAAKFMRS VRTWANETFG
161 SEKAIQLIAM ATPEDMRINA EHIRIADQFV EVPGGTNNNN
YANVQLIVEI AVRTGVSAVW PGWGHASENP ELPDALTANG
241 IVFLGPPSSS MNALGDKVGS ALIAQAAGVP TLPWSGSQVE
IPLEVCLDSI PEEMYRKACV STTEEALASC QMIGYPAMIK
321 ASWGGGGKGI RKVNNDDVVR ALFKQVQGEV PGSPIFIMRL
ASQSRHLEVQ LLCQYGNVA ALHSRDCSVQ RRHQKIIEEG
401 PVTVAPRETV KELEQAARRL AKAVGYVGAA TVEYLYSMET
GEYYFLELNP RLQVEHPVTE WIAEVNLPAA QVAVGMGIPL
481 WQVPEIRRFY GMDNGGGYDI WTKTAALATP FNFDEVDSQW
PKGHCVAVRI TSEDPDDGFK PTGGKVKEIS FKSKPNVWAY
561 FSVKSGGGIH EFADSQFGHV FAYGVSRAAA ITNMSLALKE
IQIRGEIHSN VDYTVDLLNA SDFKENRIHT GWLDNRIAMR
641 VQAERPPWYI SVVGALYKT ITSNTDTVSE YVSYLVKGQI
PPKHISLVHS TVSLNIEESK YTITETIRSGQ GSYRLRMNGS
721 VIEANVQTLG DGGLLMQLDG NSHVIYAEAE AGGTRLLIDG
KTCLLQNDHD PSRLLAETPC KLLRFLVADG AHVEADVPIA
801 EVEVMKMCMP LLSPAAGVIN VLLSEGQPMQ AGDLIARLDL
DDPSAVKRAE PFNGFFPEMS LPAAAGQVH KRCATSLNAA
881 RMVLAGYDHP INKVVDLVS CLDAPDLPFL QWHEELMSVLA
TRLPRLLKSE LEGKYSEYKL NVEHGKKKDF PAKMLREIIE
961 ENLAHGSEKE IATNERLVEP LMSLLKSYEG GRESHAHFIV
KSLFEEYLSV EELFSDGIQS DVIERLRQQH SKDLQKVVDI
1041 VLSHQGVRNK TKLILTLMEK LVYPNPAAYK DQLTRFSSLN
HKRYKLLALK ASELLEQTKL SELRTSIARS LSELEMFTEE
1121 RTAISEIVGD LVTAPLPVED ALVSLFDCSD QTLQQRVIET
YISRLYQPHL VKDSIQLKYQ ESGVIALWQF TEGHSEKRLG
1201 AMVIVKSLES VSAAIGAALK DTSRFSSEGE NIMHIALLGA
DYQMHGTEDS GDNDQAQVRI DKLSSTLEQH TVTADLRAAG
1281 VKVISCIVQR DGALMPMRHT FLLSDEKLSY EEEPLLRHVE
PPLSALLELG KLVKGYNEV KYTPSRDRQW NIYTLRNTEN
1361 PKMLHRVFFR TLVRQPSASN KFTSGHISDV EVGSAEESLS
FTSSSILRSL MTAIEELEH AIRTGHSHMY LCILKEQKLL
1441 DLVPVSGNKV VDVQDEATA CSLKEMALK IHELVGARMH
HLSVCQWEVK LKLDSDGPAS GTWRVVTNNV TSHTCTVDIY
1521 REVEETESQK LVYHSAALSS GPLHGIALNN PYQPLSVIDL
KRCSARNNRT TYCYDFPLAF ETAVQKWSN ISSDSNRCYV
1601 KATELVFAHK HGSWGTPVIP MERPAGLNDI GMVAWILDMS
TPEYPNGRQI VVIANDITFR AGSFGPREDA FFETVTNLAC
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FIGURE 16B CONTINUED

1681 ERKLPLIYLA ANSGARIGIA DEVKSCFRVG WSDDGSPERG
FQYIYLTEED HARISASVIA HKMQLDNAGEV RWVIDSVVGK
1761 EDGLGVENIH GSAAIASAYS RAYEETFTLT FVTGRTVGIG
AYLARLGIRC IQRTDQPIIL TGFSALNKLL GREVYSSHMQ
1841 LGGPKIMATN GVVHLTVSDD LEGVSNILRW LSYVPANIGG
PLPITKSLDP PDRPVAYIPE NTCDPRAAIS GIDDSQGKWL
1921 GGMFDKDSFV ETFEGWAKSV VTGRAKLGGI PVGVIAVETQ
TMMQLIPADP GOLDSHERSV PRAGQVWFPD SATKTAQAML
2001 DFNREGLPLF ILANWRGFSG GQRDLFEGIL QAGSTIVENL
RTYNQPAFVY IPKAAELRGG AWVVIDSKIN PDRIEFYAER
2081 TAKGNVLEPQ GLIEIKFRSE ELQECMGRLD PELINLKAKL
QGAKHENGSL SELESLQKSI EARKKQLLPL YTQIAVRFAE
2161 LHDTSLRMAA KGVIKKVVDW EDSRSFFYKR LRRRISEDVL
AKEIRGVSGK QFSHQSAIEL IQKWYLASKE AETGSTEWDD
2241 DDAFVAWREN PENYQEYIKE LRAQRVSQLL SDVADSSPDL
QALPQGLSML LEKMDPSRRA QFVEEVKKVL K

FIGURE 17A

cDNA sequence of *Triticum aestivum* plastidal ACCase
NC057799.1 (SEQ ID NO: 957)

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1 ATGGGATCCA CACATTTGCC CATTGTCGGC CTTAATGCCT
CGACAACACC ATCGCTATCC ACTATTGCC CGGTAAATTC
81 AGCCGGTGCT GCATTCCAAC CATCTGCCCC TTCTAGAACC
TCCAAGAAGA AAAGTCGTCG TGTTCACTCA TTAAGGGATG
161 GAGGCGATGG AGGCGTGTC GACCCTAACC AGTCTATTCG
CCAAGGTAAC CTGAAAACCA TTTCCTTCCT ACAAACTACA
241 CTTTGTTGTC ATCCTCAAAC TTGTGTAGAT ACTTTTATTG
ACTGAGAGCA TGCTGGTGTT AGTGTAAGAT ATCTCAATGC
321 TAGATCACAG AATGGCGGTT ATTGACCTTG TTAAAGATGC
AAATGACTGC AGCAATATTT AACACTTTTT TATGCGATAC
401 AAATACAATA GTAGTTCTTC TATATAATGA GTAATGAGTA
AAGCCCAGTT TTTCTTGATT AAATGGTTTT AGTGGAAGGA
481 ATGTTTAATG TTCAAATGA TGGTTTATAA GGGAAAGGAA
CATGAAAGTG CAAGAATACA TATAAGCAGC ATATTAGTTA
561 TGCAAGACTG AATCATTTTC CTTATATAAT ACTTCTAAAA
GAGAAGGATG TCTAGAAACC TTTTCTGATA ATTTACTAGC
641 ATGAAGAACA ATAACATTCG TAAATTGACA CCTGTGCTTC
TTCTTAGCTA TCGTGTTGCT CAGTTTCTAA TGCATATCTG
721 GATGTAGGTC TTGCCGGCAT CATTGACCTC CCAAAGGAGG
GCACATCAGC TCCGGAAGTG GATATTTTAC AGTAAGTACT
801 TGAGCATTTT AAAATTAGAA TTAGCATATC TCTCTTTAAA
AAGGAAAAAT ATGTATAGTT TAATATAGAA TTATTATAGA
881 TTATGCTTAT TTTATTATTC GCATATGCTG ATATTTTGAA
TTGCATTTGA TATATTTTTA TAGATTTTTA CTGAACTACA
961 TTATAGTTGC CATAACAAT GCATTTGCTC AGGCACATCA
CTGTTGCACT GCATGGAGTA TTTTGTGCA CTTAGGAATC
1041 ATTTTCAGAA AGCCTTTTGC CTATAATTTT AAAAATAATA
ATTTAATTAC CATCTGAAAC CCGTACCCGC ATGACGGATG
1121 AAAGCTCATT TGAAGTTTTT GATTTATAGT AGCCAAGTGT
TTGTTATGTT ATATTGTTAT GGTCACCATC GTAATGATTT
1201 TGTTCTTTTT TCTCTAGTGG GTCCGAAGAA CCCAGGGGCT
CCTACCAAAT GAATGGGATA CTGAATGAAG CACATAATGG
1281 GAGGCATGCT TCGCTGTCTA AGGTTGTCGA ATTTTGTATG
GCATTGGGCG GCAAAACACC AATTCACAGT GTATTAGTTG
1361 CGAACAATGG AATGGCAGCA GCTAAGTTCA TGCGGAGTGT
CCGAACATGG GCTAATGAAA CATTTGGGTC AGAGAAGGCA
1441 ATTCAGTTGA TAGCTATGGC TACTCCAGAA GACATGAGGA
TAAATGCAGA GCACATTAGA ATTGCTGATC AATTTGTTGA
1521 AGTACCCGGT GGAACAAACA ATAACAATA TGCAAAATGTC
CAACTCATAG TGGAGGTTAG TATTGCTCAC CCGTTGATGT
1601 GCAATTGATG CGCAAGTTGT TCATTTAGCA TGACATGACA
ATTTTGCTGT TGCAGATAGC AGTGAGAACC GGTGTTTCTG
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FIGURE 17A CONTINUED

1681 CTGTTTGGCC TGGTTGGGGC CATGCATCTG AGAATCCTGA
ACTTCCAGAT GCACTAAATG CAAACGGAAT TGTTTTTCTT
1761 GGGCCACCAT CATCATCAAT GAACGCACTA GGTGACAAGG
TTGGTTCAGC TCTCATTGCT CAAGCAGCAG GGGTTCCGAC
1841 TCTTCCTTGG AGTGGATCAC AGGTGAATCT CACATTCTCT
GATAACTCAT CGTCTGATCT TTGTACTGGA CACATTTTAT
1921 AACAGAAAAGA CACTATATTA TAGGTGGAAA TTCCATTAGA
AGTTTGTTTG GACTCGATAC CTGCGGAGAT GTATAGGAAA
2001 GCTTGTGTTA GTACTACGGA GGAAGCACTT GCGAGTTGTC
AGATGATTGG GTATCCAGCC ATGATTAAAG CATCATGGGG
2081 TGGTGGTGGT AAAGGGATCC GAAAGGTACA TCATTCAATT
GATTGGACTA TATTCAAAAAG ATTGTGTGGG TTGTTGTGTG
2161 ATATTTTATG CCCAGAGTTA GCTCTAACCT TTTCAACATA
TTAACTCAAT ATCTGTTGCA GGTTAATAAC GACGATGATG
2241 TCAGAGCACT GTTTAAGCAA GTGCAAGGTG AAGTTCCTGG
CTCCCCAATA TTTATCATGA GACTTGCATC TCAGGTTAGA
2321 CTTCTCTGCA AGTTGCATTT TTTCCAAGCA TGTTGTTCCC
GAGTTGTATA TTATACGCCT GGAAGCTTCA TATGTTATTC
2401 CTTGCAGGCT AGAAATGTAT GCTGGAACAT GTGCTCATAT
GGTATATTAT GTTTTAATCC TCCCCTTTTT TCTTTTGTAG
2481 AGTCGACATC TTGAAGTTCA GTTGCTTTGT GATCAATATG
GCAATGTAGC TGCGCTTCAC AGTCGTGACT GCAGTGTGCA
2561 ACGGCGACAC CAAAAGGTAA CGCTGGTCCA GATCTGAAAA
CATCACGTGT ATTACATGTT CTACTTCATA CTTGTAGTTG
2641 TTTATCAAAA GGACCAATTG CGTCCATTTT TTGTTTATAC
CAGATTATTG AGGAAGGACC AGTTACTGTT GCTCCTCGCG
2721 AGACAGTGAA AGAGCTAGAG CAAGCAGCAA GGAGGCTTGC
TAAGGCTGTG GGTTATGTTG GTGCTGCTAC TGTTGAATAT
2801 CTCTACAGCA TGGAGACTGG TGAATACTAT TTTCTGGAAC
TTAATCCACG GTTGCAGGTA TATTCTTTTG AACATTCCTC
2881 TGGACTTAGT TTTTGTGCGT CAGTTATTTA CATTGTAAAA
TGGCATACAT CCAGGTTGAG CATCCAGTCA CCGAGTGGAT
2961 AGCTGAAGTA AACTTGCCTG CAGCTCAAGT TGCAGTTGGA
ATGGGTATAC CCCTTTGGCA GGTTCCAGGT AATAATTATA
3041 TTATTGTAAG TTTTGTAGTT ACTTTCCCAT GTTATTTCTG
TGCCTAACTT TCTCCTTATA CAGAGATCAG ACGTTTCTAT
3121 GGAATGGACA ATGGAGGAGG CTATGACATT TGGAGGAAAA
CAGCAGCTCT TGCTACCCCA TTAACTTTG ATGAAGTGGA
3201 TTCTCAATGG CCAAAGGGTC ATTGTGTAGC AGTTAGGATA
ACCAGTGAGG ATCCAGATGA CGGATTCAAG CCTACCGGTG
3281 GAAAAGTAAA GGTGAGATTT CATGATGCCG TCTATGGTTC
TAGCACATTA GATTTGTAAA CTGACCGGAT CTTGATTTTC
3361 TTATAATTCA GGAGATCAGT TTTAAAAGCA AGCCAAATGT
TTGGGCCTAT TTCTCTGTTA AGGTAAGCTG TTCATGGCTC

FIGURE 17A CONTINUED

3441 TGTTGCACTG TTATATTGTT GAGTTGGGCA GAAAATTGGG
CTGCGTTTTT TTTGAACTAT TTTTCCATT TGGGCTTTGA
3521 CCAAGTACTA ACCAAATCGA ACACATTTTT GTCCCCCTT
TTATCTGTTT TCAGTCCGGT GGAGGCATTC ATGAATTTGC
3601 TGATTCTCAG TTTGGTATGC AAAATTTGAC CCTGTGTATA
TTCCTCTTTG CTATTTGTAT TGGTCCTTAC GTTTGGAAGA
3681 TTACTCTTTT CATTACAGGA CATGTTTTTG CATATGGAGT
GTCTAGAGCA GCAGCAATAA CCAACATGTC TCTTGCGCTA
3761 AAAGAGATTC AAATTCGTGG AGAAATTCAT TCAAATGTTG
ATTACACAGT TGATCTCTTG AATGTAAGAA ATACCACCTG
3841 TATATGCTTT TGATGTAATA CAACCATTTT ACATCTGGCA
TTCCTTTTAA GTAATCCCAT GCCTCAATTT TCTGTATCTT
3921 TAAATCAGGC CTCAGACTTC AAAGAAAACA GGATTCATAC
TGGCTGGCTG GATAACAGAA TAGCAATGCG AGTCCAAGCT
4001 GAGAGACCTC CGTGGTATAT TTCAGTGGTT GGAGGAGCTC
TATATGTAAG AAATATGCC CCTCTTACTG CAGCTTTTGT
4081 CAAACCAATT GCGAAAAACA CAATTAGTTG TTTAATGCAA
ATCACTGTCT TGTGCTGCAG AAAACAATAA CGAGCAACAC
4161 AGACACTGTT TCTGAATATG TTAGCTATCT CGTCAAGGGT
CAGATTCCAC CGAAGGTAGT GTTTTAAATGG GCTTAAACTC
4241 TGGATATTGC TTGAAGATGA ATGTTGTTGA ATGTTGAACA
ATTTCTTTTG TGCAGCATAT ATCCCTTGTC CATTCAACTG
4321 TTTCTTTGAA TATAGAGGAA AGCAAATATA CAGTAAGTCT
TACATTCCCT TAAAAAATG AGTCGTTGTA ATGAAGTAAC
4401 GGCTATCGTT GACGCTCATC TACACCATGT CACAGATTGA
AACTATAAGG AGCGGACAGG GTAGCTACAG ATTGCGAATG
4481 AATGGATCAG TTATTGAAGC AAATGTCCAA ACATTATGTG
ATGGTGGACT TTTAATGCAG GTGATTTTGT CTTGTTTTTC
4561 TACCTGCCCC TAAGTATGAT ATATAATGTT GTGAAGTACT
GGTGAAAGAG TTCTGATTCA GTAGCTGTAA TTTCTTCAGT
4641 TGGATGGAAA CAGCCATGTA ATTTATGCTG AAGAAGAGGC
CGGTGGTACA CGGCTTCTAA TTGATGGAAA GACATGCTTG
4721 TTACAGGTAA TAATTGTCTG TTTGTTCCCT TCCTTCTAAC
TAATCTTGGT GTTTGATTTG ATATTTTCCA GCCCTATTTG
4801 TGGCTTTTTA CGTCATTCGC TTCATTAGCA TTCATTTCTT
TCCACTTTCA TTTAAAGAAA TTTAATTACG ATGTTTATTT
4881 CTAGTCATGT GCCATAAGAA ACCACAATTA AGTCATTATT
ATGGACTAAT TGATGTCACA ACAAGCTGCT ATTGTGGTAA
4961 ATCCGTAAAT GTGACTACCT AAGCAGCCAA ACAAACCAGG
TCATAATGAT AAGCGTTATC AACGGCATGT CTTGTGAAGT
5041 TGTGATGTAA AGACAAGTTA CATAGCTGTA AAAAAATTAA
TAGGGCTCCA GTTTTTATAT TGCTACTTCT GTTTCTTAAT
5121 TTGAGCAACT ACCGACCACA ATGCTTTGTG TTTATTACAA
ATTTACAATC AAGAATTTAT TATAATCAAG CTGTAATAAC

FIGURE 17A CONTINUED

5201 CTATGTCATG AACCTTCTAG GGCATGATGT TACAGCATCA
ATTTTTTGGT GATAAAAAAG GAACTATTAA TAATTAATGA
5281 TTCTTGATCA TGCCACATTG TATCCTCGTG TAAATAAATG
ACACATCGTT CTTGCAGAAT GATCACGATC CTTCAAGGTT
5361 ATTAGCTGAG ACACCCTGCA AACTTCTTCG TTTCTTG GTT
GCCGATGGTG CTCATGTTGA AGCTGATGTA CCATATGCGG
5441 AAGTTGAGGT TATGAAGATG TGCATGCCCC TCTTGTCAAC
TGCTGCTGGT GTCATTAATG TTTTGTTGTC TGAGGGCCAG
5521 CCTATGCAGG TTACATCACA ACGTTTCTAT TGCTTCTGCT
GTACATAACA ATTGCACGTA AAGTATCTGA ACTTAATATA
5601 TTTTGTCTAG GCTGGTGATC TTATAGCAAG ACTTGATCTT
GATGACCCTT CTGCTGTGAA GAGAGCTGAG CCATTTAACG
5681 GATCTTTCCC AGAAATGAGC CTTCTATTG CTGCTTCTGG
CCAAGTTCAC AAAAGATGTG CCACAAGCTT GAATGCTGCT
5761 CGGATGGTCC TTGCAGGATA TGATCACCCG ATCAACAAAG
TAAACATCAA GAACCTTGCA GTACCTATAT TTCTGGTTTT
5841 TTGTCACGTG TTTCTTGTTT TCCTCAAACA CCTTTTTTTT
ATGTTATGAA TTCTGGATGA TCCCTAATTC CTCCTTGACT
5921 TTGGCTCCCT TATGCTACAA AACTGTTTGT AACCTATGGA
AGTTTATTAT GCCTGTCTTG GAAAATCTGA ATTTGGGTGC
6001 TCTTTCTCTT ATGTTAATCA TGGTCACTAC TTTACAGATT
GTTTTTATCC TTGTGCTATT TTTCTCTCTT TCAGCAATTT
6081 ATGTTTTGGT TTGATTTTTT CCGATCATAA CTATTTGTTC
AGCATTTGTT TACCTTTTTT ATTATAACCG GCTTTCTTTT
6161 CAGGTTGTAC AAGATCTGGT ATCCTGTCTA GATGCTCCTG
AGCTTCCTTT CCTACAATGG GAAGAGCTTA TGTCTGTTTT
6241 AGCAACTAGA CTTCCAAGGC TTCTTAAGAG CGAGGTATGT
GATAATAGAC GTGATATGTA GCGTCTGGGT AGATTTCAAT
6321 CTGCCATGTG GATTTCTAAT TGGTGATATA GAAGGGTGT
ATCACTTTGC ATAAGCATCA GTCACTTTA TCTTGTTAAT
6401 TTTCATTTTA CATTGTCCAA TCACCGGTAA TTTTCCGTAG
CTTATTGTGT AACTTCTAAA ACTGCCTTTT CTAATAATG
6481 TAATCAAAAC TTGAAATATT TCATTTTAAT TCTTCTTAGC
TTGGAACATT TGATACTTCA TCTCATCAAT TTGCACTGTA
6561 GCTCAGAAAGT TCTCATTTGA TTTTAACCCA GTTCTTGCTT
ATTGATCTTT ATATTTTTTT TGTGTGTTCT ACCATAATGG
6641 TTTCAACTTT TTATGCAACC AGTTGGAGGG TAAATACAGT
GAATATAAGT TAAATGTTGG CCATGGGAAG AGCAAGGATT
6721 TCCCTTCCAA GATGCTAAGA GAGATAATCG AGGTCAGTAT
TAGGTTTCTT TTATGATATC CTTGTCTAGA ACTTCTACTG
6801 CTCTTTGTAA CATGTTTTCT TGTAGGAAAA TCTTGCACAT
GGTCTGAGA AGGAAATTGC TACAAATGAG AGGCTTGTTG
6881 AGCCTCTTAT GAGCCTACTG AAGTCATATG AGGGTGGCAG
AGAAAGCCAT GCACACTTTA TTGTGAAGTC CCTTTTCGAG

FIGURE 17A CONTINUED

6961 GACTATCTCT CGGTTGAGGA ACTATTCAGT GATGGCATT
AGGTTATCTG ACATCTCAAA ACTCAGATCT ACTAGATATC
7041 ATTGTTTTAA AAGGATATTC CTTTTCCCT TTTATTTACG
AGAACATTAT CAACTAATGT TCATGCACAT ATTATAGTTT
7121 GCACCATAAT CTATCAGTAA TTAAGTAGCT AATGATTTTA
GGTGTAAGAA AGGTAGCAAA TAGTTTGCAA ATGGCTTATG
7201 TCTTGTTTCC TTAGAAACGC TTTCTGCTTA TTTGTTTCCT
TCAACTGTCA TGTTTTGTAG TCTGATGTGA TTGAACGCCT
7281 GCGCCAACAA CATAGTAAAG ATCTCCAGAA GGTTGTAGAC
ATTGTGTTGT CTCACCAGGT AAATGTTTTG TGATCTGATG
7361 GCTTAGTGCA AATGATTACT GAAGCAGTCT TCATTACTTA
TAATTCGATT TTGTTGTAGG GTGTGAGAAA CAAACTAAG
7441 CTGATACTAA CACTCATGGA GAAACTGGTC TATCCAAACC
CTGCTGCCTA CAAGGATCAG TTGACTCGCT TTTCCCTCCCT
7521 CAATCACAAA AGATATTATA AGGTGACAAT GGCAGCCTAA
AATAATGGAA GCTTTTGAAT CATACTTTTC TGATATCTTA
7601 GTCTAATGAA TTAATTACAT CATAATAAAT GCAGTTGGCC
CTTAAAGCTA GCGAGCTTCT TGAACAAACC AAGCTTAGTG
7681 AGCTCCGCAC AAGCATTGCA AGGAGCCTTT CAGAACTTGA
GATGTTTACT GAAGAAAGGA CGGCCATTAG TGAGATCATG
7761 GGAGATTTAG TGACTGCCCC ACTGCCAGTT GAAGATGCAC
TGGTTTCTTT GTTTGATTGT AGTGATCAAA CTCTTCAGCA
7841 GAGGGTGATC GAGACGTACA TATCTCGATT ATACCAGGTA
TTACATAAAA TCATTTTTTTG GACTTGATTG TACTCTCCCT
7921 TTGCATTTCT TGGAAGCATA CACTAAAGTT CCTATTGAAA
CAAGATGCTT ATGCTTCTTT AAAATAAATC TGGCAGAATC
8001 TAGGTGTGGA AATATTTGAT TTTACTACAT CTTACTGCTC
TTCAAGTTGG CTAATACCAA AAACATTTTC AGCCTCATCT
8081 TGTCAAGGAT AGTATCCAGC TGAAATATCA GGAATCTGGT
GTTATTGCTT TATGGGAATT CGCTGAAGCG CATTGAGAGA
8161 AGAGATTGGG TGCTATGGTT ATTGTGAAGT CGTTAGAATC
TGTATCAGCA GCAATTGGAG CTGCACTAAA GGGTACATCA
8241 CGCTATGCAA GCTCTGAGGG TAACATAATG CATATTGCTT
TATTGGGTGC TGATAATCAA ATGCATGGAA CTGAAGACAG
8321 GTATGTTTCA GTGCAATATT AGTGCTAATG AGCTGTATCT
GGTTGTTAAT ATTTGGTGGA ATAATTCATT TAATAATTTA
8401 ACTCATTCCT TTCAGTGGTG ATAACGATCA AGCTCAAGTC
AGGATAGACA AACTTTCTGC GACACTGGAA CAAAATACTG
8481 TCACAGCTGA TCTCCGTGCT GCTGGTGTGA AGGTTATTAG
TTGCATTGTT CAAAGGGATG GAGCACTCAT GCCTATGCGC
8561 CATACCTTCC TCTTGTCGGA TGAAAAGCTT TGTTATGAGG
AAGAGCCGGT TCTCCGGCAT GTGGAGCCTC CTCTTTCTGC
8641 TCTTCTTGAG TTGGTATGTG ACTATCAAAA TGCCTGCGTG
TTGTTTGATA CTCCATAGTC CATATGCTTT AATTATCCTG

FIGURE 17A CONTINUED

8721 TTTGCTATTT GTATTTATTT AGCCTGTTGT GGTTACAGGG
TAAGTTGAAA GTGAAAGGAT ACAATGAGGT GAAGTATACA
8801 CCGTCACGTG ATCGTCAGTG GAACATATAC ACACTTAGAA
ATACAGAGAA CCCCCAAATG TTGCACAGGG TGTTTTTCCG
8881 AACTCTTGTC AGGCAACCCG GTGCTTCCAA CAAATTCACA
TCAGGCAACA TCAGTGATGT TGAAGTGGGA GGAGCTGAGG
8961 AATCTCTTTC ATTTACATCG AGCAGCATAT TAAGATCGCT
GATGACTGCT ATAGAAGAGT TGGAGCTTCA CGCGATTAGG
9041 ACAGGTCACT CTCATATGTT TTTGTGCATA TTGAAAGAGC
AAAAGCTTCT TGATCTTGTT CCCGTTTCAG GGTAAGCCTG
9121 CACACTGTTC ATTTGGTGGC ACATAATAGG TCTTGCTCTT
GTGTTTTGCC TTCAATGAAC TTTTCATCTT ACTCAGGAAC
9201 AAAGTTGTGG ATATTGGCCA AGATGAAGCT ACTGCATGCT
TGCTTCTGAA AGAAATGGCT CTACAGATAC ATGAACTTGT
9281 GGGTGCAAGG ATGCATCATC TTTCTGTATG CCAATGGGAG
GTGAAACTTA AGTTGGACAG CGATGGGCCT GCCAGTGGTA
9361 CCTGGAGAGT TGTAACAACC AATGTTACTA GTCACACCTG
CACTGTGGAT GTAAGTTCCT TCCCCTTGCA TCTTGTTTTT
9441 CTGTGTGTAA CCAATCAGAC TAAATTGAAC TTGTAGCATT
TATTCATAGA ACTATTATGT CATTAGTTG TCATTTCCAC
9521 CTAATTATGT TTGGAAGCTC ATTCTGTTTT TAATGCTTTT
AGATCTACCG TGAGGTCGAA GATACAGAAT CACAGAACT
9601 AGTGTACCAC TCTGCTCCAT CGTCATCTGG TCCTTTGCAT
GGCGTTGCAC TGAATACTCC ATATCAGCCT TTGAGTGTTA
9681 TTGATCTGAA ACGTTGCTCC GCTAGAAATA ACAGAACTAC
ATACTGCTAT GATTTTCCGT TGGTGAGTAT CTCGCTCTCT
9761 TTCTCTATAT ATGTATCTAT TGTGTTAGCA GATTCTTAGT
GATATTATGT GTCCAAAAGC TGACAAGAAC TCAAAAATGT
9841 AGGCATTTGA AACTGCAGTG CAGAAGTCAT GGTCTAACAT
TTCTAGTGAC ACTAACCGAT GTTATGTTAA AGCGACGGAG
9921 CTGGTGTTTG CTCACAAGAA CGGGTCATGG GGCACCTCTG
TAATTCCTAT GGAGCGTCCT GCTGGGCTCA ATGACATTGG
10001 TATGGTAGCT TGGATCTTGG ACATGTCCAC TCCTGAATAT
CCCAATGGCA GGCAGATTGT TGTCATCGCA AATGATATTA
10081 CTTTTAGAGC TGGATCGTTT GGTCCAAGGG AAGATGCATT
TTTTGAACT GTTACCAACC TAGCTTGTA GAGGAAGCTT
10161 CCTCTCATCT ACTTGGCAGC AACTCTGGT GCTCGGATCG
GCATAGCAGA TGAAGTAAAA TCTTGCTTCC GTGTTGGATG
10241 GTCTGATGAT GGCAGCCCTG AACGTGGGTT TCAATATATT
TATCTGACTG AAGAAGACCA TGCTCGTATT AGCGCTTCTG
10321 TTATAGCGCA CAAGATGCAG CTTGATAATG GTGAAATTAG
GTGGGTTATT GATTCTGTTG TAGGGAAGGA GGATGGGCTA
10401 GGTGTGGAGA ACATACATGG AAGTGCTGCT ATTGCCAGTG
CCTATTCTAG GGCCTATGAG GAGACATTTA CGCTTACATT

FIGURE 17A CONTINUED

10481 TGTGACTGGA AGGACTGTTG GAATAGGAGC ATATCTTGCT
CGACTTGGA TACGGTGCAT TCAGCGTACT GACCAGCCCA
10561 TTATCCTAAC TGGGTTTTCT GCCTTGAACA AGCTTCTTGG
CCGGGAAGTG TACAGCTCCC ACATGCAGTT GGGTGGCCCC
10641 AAAATTATGG CCACAAACGG TGTTGTCCAT CTGACAGTTT
CAGATGACCT TGAAGGTGTA TCTAATATAT TGAGGTGGCT
10721 CAGCTATGTT CCTGCCAACA TTGGTGGACC TCTTCCTATT
ACAAAATCTT TGGACCCACC TGACAGACCC GTTGCTTACA
10801 TCCCTGAGAA TACATGTGAT CCTCGTGCAG CCATCAGTGG
CATTGATGAT AGCCAAGGGA AATGGTTGGG GGGCATGTTC
10881 GACAAAGACA GTTTTGTGGA GACATTTGAA GGATGGGCGA
AGTCAGTAGT TACTGGCAGA GCGAACTCG GAGGGATTCC
10961 GGTGGGTGTT ATAGCTGTGG AGACACAGAC TATGATGCAG
CTCATCCCTG CTGATCCAGG TCAGCTTGAT TCCCATGAGC
11041 GGTCTGTTCC TCGTGCTGGG CAAGTCTGGT TTCCAGATTC
AGCTACTAAG ACAGCGCAGG CAATGCTGGA CTTCAACCGT
11121 GAAGGATTAC CTCTGTTTAT CCTTGCTAAC TGGAGAGGCT
TCTCTGGTGG GCAAAGAGAT CTTTTTGAAG GAATCCTTCA
11201 GGCTGGGTCA ACAATTGTTG AGAACCTTAG GACATACAAT
CAGCCTGCCT TTGTATATAT CCCCAGGCT GCAGAGCTAC
11281 GTGGAGGGGC TTGGGTCGTG ATTGATAGCA AGATAAATCC
AGATCGCATT GAGTTCTATG CTGAGAGGAC TGCAAAGGGC
11361 AATGTTCTTG AACCTCAAGG GTTGATTGAG ATCAAGTTCA
GGTCAGAGGA ACTCCAAGAG TGCATGGGCA GGCTTGACCC
11441 AGAATTGATA AATTTGAAGG CAAAACCTCT GGGAGCAAAG
CATGAAAATG GAAGTCTATC TGAGTCAGAA TCCCTTCAGA
11521 AGAGCATAGA AGCCCGGAAG AAACAGTTGT TGCCTTTGTA
TACTCAAATT GCGGTACGGT TCGCTGAATT GCATGACACT
11601 TCCCTTAGAA TGGCTGCTAA GGGTGTGATT AAGAAGGTTG
TAGACTGGGA AGATTCTAGG TCTTTCTTCT ACAAGAGATT
11681 ACGGAGGAGG ATATCCGAGG ATGTTCTTGC AAAGGAAATT
AGAGGTGTAA GTGGCAAGCA GTTTTCTCAC CAATCGGCAA
11761 TCGAGCTGAT CCAGAAATGG TACTTGGCCT CTAAGGGAGC
TGAAACAGGA AACACTGAAT GGGATGATGA CGATGCTTTT
11841 GTTGCCTGGA GGGAAAACCC TGAAAACCTAC CAGGAGTATA
TCAAAGAACT CAGGGCTCAA AGGGTATCTC AGTTGCTCTC
11921 AGATGTTGCA GACTCCAGTC CAGATCTAGA AGCCTTGCCA
CAGGGTCTTT CTATGCTACT AGAGAAGGTA CGCATACTTG
12001 CTGTTTTATT TCTTGAAAGT AATTTATTGA GGTGAGTGA
AATGTTGCCA TCTTATGTAT ATATAGTGTT TTAACAAATA
12081 ATGATAATGC TTTTCTTTG GTCACACT TGTTCAGATG
GATCCCTCAA GGAGAGCACA GTTTGTTGAG GAAGTCAAGA
12161 AGGTCCTTAA ATGA

FIGURE 17B

Triticum aestivum plastidal ACCase NC057799.1 (SEQ ID NO: 958)

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1  MGSTHLPIVG LNASTTPSLS TIRPVNSAGA AFQPSAPSRT
SKKKSRRVQS LRDGGDGGVS DPNQSIRQGL AGIIDLPKEG
81  TSAPEVDISH GSEEPGRSYQ MNGILNEAHN GRHASLSKVV
EFCMALGGKT PIHSLVANN GMAAAKFMRS VRTWANETFG
161 SEKAIQLIAM ATPEDMRINA EHIRIADQFV EVPGGTNNNN
YANVQLIVEI AVRTGVSAVW PGWGHASENP ELPDALNANG
241 IVFLGPPSSS MNALGDKVGS ALIAQAAGVP TLPWGSQSVE
IPLEVCLDSI PAEMYRKACV STTEEALASC QMIGYPAMIK
321 ASWGGGGKGI RKVNNDDVDR ALFKQVQGEV PGSPIFIMRL
ASQSRHLEVQ LLCQYGNVA ALHSRDCSVQ RRHQKIIEEG
401 PVTVAPRETV KELEQAARRL AKAVGYVGAA TVEYLYSMET
GEYYFLELNP RLQVEHPVTE WIAEVNLPAA QVAVGMGIPL
481 WQVPEIRRFY GMDNGGGYDI WRKTAALATP FNFDEVDSQW
PKGHCVAVRI TSEDPDDGFK PTGGKVKEIS FKSKPNVWAY
561 FSVKSGGGIH EFADSQFGHV FAYGVSRAAA ITNMSLALKE
IQIRGEIHSN VDYTVDLLNA SDFKENRIHT GWLDNRIAMR
641 VQAERPPWYI SVVGALYKT ITSNTDTVSE YVSYLVKGQI
PPKHISLVHS TVSLNIEESK YTITETIRSGQ GSYRLRMNGS
721 VIEANVQTLG DGGLLMQLDG NSHVIYAEAE AGGTRLLIDG
KTCLLQNDHD PSRLLAETPC KLLRFLVADG AHVEADVPIA
801 EVEVMKMCMP LLSPAAGVIN VLLSEGQPMQ AGDLIARLDL
DDPSAVKRAE PFNGSFPEMS LPAAAGQVH KRCATSLNAA
881 RMLAGYDHP INKVVDLVS CLDAPELPFL QWHEELMSVLA
TRLPRLLKSE LEGKYSEYKL NVGHGKSKDF PSKMLREIIE
961 ENLAHGSEKE IATNERLVEP LMSLLKSYEG GRESHAFIV
KSLFEDYLSV EELFSDGIQS DVIERLRQQH SKDLQKVVDI
1041 VLSHQGVRNK TKLILTLMEK LVYPNPAAYK DQLTRFSSLN
HKRYKLLALK ASELLEQTKL SELRTSIARS LSELEMFTEE
1121 RTAISEIMGD LVTAPLPVED ALVSLFDCSD QTLQQRVIET
YISRLYQPHL VKDSIQLKYQ ESGVIALWEF AEAHSEKRLG
1201 AMVIVKSLES VSAAIGAALK GTSRYASSEG NIMHIALLGA
DNQMHGTEDS GDNDQAQVRI DKLSATLEQN TVTADLRAAG
1281 VKVISCIVQR DGALMPMRHT FLLSDEKLCY EEFPVLRHVE
PPLSALLELG KLVKGYNEV KYTPSRDRQW NIYTLRNTEN
1361 PKMLHRVFFR TLVRQPGASN KFTSGNISDV EVGGAEESLS
FTSSSILRSL MTAIEELEH AIRTGHSHMF LCILKEQKLL
1441 DLVPVSGNKV VDIGQDEATA CLLLKEMALQ IHELVGARMH
HLSVCQWEVK LKLDSDGPAS GTWRVVTTNV TSHTCTVDIY
1521 REVEDTESQK LUYHSAPSSS GPLHGVALNT PYQPLSVIDL
KRCSARNNRT TYCYDFPLAF ETAVQKSWSN ISSDTNRCYV
1601 KATELVFAHK NGSWGTPVIP MERPAGLNDI GMVAWILDMS
TPEYPNGRQI VVIANDITFR AGSFGPREDA FFETVTNLAC
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FIGURE 17B CONTINUED

1681 ERKLPLIYLA ANSGARIGIA DEVKSCFRVG WSDDGSPERG
FQYIYLTEED HARISASVIA HKMQLDNGEI RWVIDSVVGK
1761 EDGLGVENIH GSAAIASAYS RAYEETFTLT FVTGRTVGIG
AYLARLGIRC IQRTDQPIIL TGFSALNKLL GREVYSSHMQ
1841 LGGPKIMATN GVVHLTVSDD LEGVSNILRW LSYVPANIGG
PLPITKSLDP PDRPVAYIPE NTCDPRAAIS GIDDSQGKWL
1921 GGMFDKDSFV ETFEGWAKSV VTGRAKLGGI PVGVIAVETQ
TMMQLIPADP GOLDSHERSV PRAGQVWFPD SATKTAQAML
2001 DFNREGLPLF ILANWRGFSG GQRDLFEGIL QAGSTIVENL
RTYNQPAFVY IPKAAELRGG AWVVIDSKIN PDRIEFYAER
2081 TAKGNVLEPQ GLIEIKFRSE ELQECMGRLD PELINLKAKL
LGAKHENGSL SESESLQKSI EARKKQLLPL YTQIAVRFAE
2161 LHDTSLRMAA KGVIKKVVDW EDSRSFFYKR LRRRISEDVL
AKEIRGVSGK QFSHQSAIEL IQKWYLASKG AETGNTEWDD
2241 DDAFVAWREN PENYQEYIKE LRAQRVSQLL SDVADSSPDL
EALPQGLSML LEKMDPSRRA QFVEEVKKVL K

FIGURE 18A

cDNA sequence of *Triticum aestivum* plastidal ACCase
NC057798.1 (SEQ ID NO: 959)

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1 ATGGGATCCA CACATTTGCC CATTGTCGGC TTAAATGCCT
CGACGACACC ATCACTATCC ACTATTGCGC CGGTAAATTC
81 AGCCGGTGCT GCATTCCAAC CATCTGCCCC TTCTAGAACA
TCCAAGAAGA AAAGTCGTCG TGTTCACTCA TTAAGGGATG
161 GAGGCGATGG AGGCGTGTC GACCCTAACC AGTCTATTCG
CCAAGGTAAC CTGAAAACCA TTTCCTTTCT ACAAACCTACA
241 CTTTGTTTCC ATCCTCAAAC TTTTGTAGAT ACTTTTATTG
ACTTGAGAGC ATGTTAGTTT TAGTGTAAGA TATCTCAATG
321 CTAGATCACA GAATGGCGGT TATTGACCTT GTTAAAAGAT
GCAAATGACT GCAGCAATAT TTAACAATTT TTTTATGTGA
401 TACGATAGTA CTTTTTCTAT AACGAGTAAT GAGTGAAGCC
CAGTTTTTCT TGATTAAATG GTTTTAGTGG AAGGAATGTT
481 TAATATTCAA AATGATGTTT TATAAGGGAA AGGAACATGA
AAGTGTAAGA ATACATATAA GCAGCATATT AGTTATGTAT
561 GACTGAGTCA GTTTCCTTAT ATAATACTTC TAAAAGAGAA
GAATGTCTAG AAACCTTTTC TGATAATTTA CTAGCATGAA
641 GAACAATAAC ATTCGTAAAG TTGTCACCTG TGCTTCTTCT
TAGCTATCGT GTAAACTTGC TCAGTTTCTA ATGCGTATCT
721 GGATGTAGGT CTTGCCGGCA TCATTGACCT CCCAAAGGAG
GGCACATCAG CTCCGGAAGT GGATATTTCA CAGTAAGTAC
801 TTGAGCATTT TAAAATTAGA ATTAGCAATC TCTCTTTAAA
ATGGAAAAAT AACTATAATT TAATATAGAA GTATTATAGA
881 TTATGCTTAT TTTATTATTC GCATATGCTG ATATTTTGAA
TTGCATTTGA TGTGTTTTTA TAGATTTTTA CTGAACTACA
961 TTATAGTTGC CATAACAAT GCATTTGCTC AGGCACATCA
CTGTTGCACT GCATGGAGTA TTTTGTGCA CTTAGGAATC
1041 ATTTTTCAGA AAGCCTTTTG CCTATAATTT TAAAAATAAT
AATTTAATTA CCATCTGAAA CCCGTACCCA CATGACGGAT
1121 GGAAGCTCAT TTGAAGTTTT CGATTATAGT AGCCAAGTAT
TTGTTATGTT ATATTGTTAT GGTCACCATC GTAATGATTT
1201 TGTTCTTTTT TCTCTAGTGG GTCCGAAGAA CCCAGAGGCT
CCTACCAAAT GAATGGGATA CTGAATGAAG CACATAATGG
1281 GAGGCATGCT TCGCTGTCTA AGGTTGTCGA ATTTTGTGTG
GCATTGGGCG GCAAAACACC AATTCACAGT GTATTAGTTG
1361 CGAACAATGG AATGGCAGCA GCTAAGTTCA TGCGAAGTGT
CCGAACATGG GCTAATGAAA CATTGGGTC AGAGAAGGCA
1441 ATTCAGTTGA TAGCTATGGC TACTCCAGAA GACATGAGGA
TAAATGCAGA GCACATTAGA ATTGCTGATC AATTTGTTGA
1521 AGTACCCGGT GGAACAAACA ATAACAATA TGCAAATGTC
CAACTCATAG TGGAGGTTAG TATTGCTCAT CCGTTGATGT
1601 GCAATCGATG CGCAAGTTGT TCATTTAGCA TGGCATGACA
ATTTTGCTGT TGCAGATAGC AGTGAGAACC GGTGTTTCTG
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FIGURE 18A CONTINUED

1681 CTGTTTGGCC TGGTTGGGGC CATGCATCTG AGAATCCTGA
ACTTCCAGAT GCACTAAATG CAAACGGAAT TGTTTTCTT
1761 GGGCCACCAT CATCATCAAT GAACGCACTA GGTGACAAGG
TTGGTTCAGC TCTCATTGCT CAAGCAGCAG GGGTCCGAC
1841 TCTTCCTTGG AGTGGATCAC AGGTGAACCT CACATTCTCT
GATAACTTAT CGTCTGATCT TGTACTGGAC ACATTTTATA
1921 ACCGAAGGAC ACTATATTAT AGGTGGAAAT TCCATTAGAA
GTTTGTGGT ACTCGATACC CGCGGAGATG TATAGGAAAG
2001 CTTGTGTTAG TACTACGGAG GAAGCACTTG CGAGTTGTCA
GATGATTGGG TATCCCGCCA TGATTAAAGC ATCATGGGGT
2081 GGTGGTGGTA AAGGGATCCG AAAGGTACAT CATTCATTTG
ATTGGACTAT ATTCAAACGA TTGTGTGGGT TGTTGTGATA
2161 TTTTATGCCC AGAGTTAGCT CTAACCTTTT CAACATATTA
ACTCAATATC TGTTGCAGGT TAATAATGAC GATGATGTCA
2241 GAGCACTGTT TAAGCAAGTG CAAGGTGAAG TTCCTGGCTC
CCCAATATTT ATCATGAGAC TTGCATCTCA GGTTAGACTT
2321 CTCTGCAAGT TGCATTTTTT CCAAGCATGT TGTTCCCGAG
TTGTATATTA TACGCCTGTA AGCTTCATAT GTTATTCCTT
2401 GCAGGCTAGA AATGTATGCT GGAACATGTG CTCATATGGT
ATATTATGTT CCTTTTTCTT TTGTAGAGTC GACATCTTGA
2481 AGTTCAGTTG CTTTGTGATC AATATGGCAA TGTAGCTGCG
CTTCACAGTC GTGACTGCAG TGTGCAACGG CGACACCAA
2561 AGGTAACGCT GGTCCAGATC TGAAAACATC ACGTGTATTA
CATGTTCTAC TTCATACTTG TAGTTGTTTA TCAAAAGGAC
2641 CAATTGCGTC CATTTTTTGT TTATACCAGA TTATTGAGGA
AGGACCAGTT ACTGTTGCTC CTCGCGAGAC AGTGAAAGAG
2721 CTAGAGCAAG CAGCAAGGAG GCTTGCTAAG GCTGTGGGTT
ATGTTGGTGC TGCTACTGTT GAATATCTCT ACAGCATGGA
2801 GACTGGTGAA TACTATTTTC TGGAACCTAA TCCACGGTTG
CAGGTATATT CTTTTGAACA TTCCTCTGGA CTTAATTTTT
2881 TGTCGTCAGT TATTTACATT GTTAAATGGC ATACATCCAG
GTTGAGCATC CAGTCACCGA GTGGATAGCT GAAGTAACT
2961 TGCCTGCAGC TCAAGTTGCA GTTGGAATGG GTATACCCCT
TTGGCAGGTT CCAGGTAATA ATTATATTAT TGTAAGTTTT
3041 TTAGTTACTT TCCCATGTTA TTTCTGTGCC TAAATTTCTC
CTTATACAGA GATCAGACGT TTCTATGGAA TGGACAATGG
3121 AGGAGGCTAT GACATTTGGA GGAAAACAGC AGCTCTTGCT
ACTCCATTTA ACTTCGATGA AGTGGATTCT CAATGGCCAA
3201 AGGGTCATTG TGTAGCAGTT AGGATAACCA GTGAGGATCC
AGATGACGGA TTCAAGCCTA CCGGTGGAAA AGTAAAGGTG
3281 AGATTTTCATG ATGCCGTCTA TGGTTCTAGC ACATTAGATT
TGTAACCTAA CCGGATCTTG ATTTTCTTAT AATTCAGGAG
3361 ATCAGTTTTA AAAGCAAGCC AAATGTTTGG GCTTATTTCT
CTGTTAAGGT AAGCTGTTCA TGGCTCTGTT GCACTGTTAT

FIGURE 18A CONTINUED

3441 ATTGTTGAGT TGGGCAGGAA ATTGGGCTGC GTTTTTTTTG
AGCTAGTTTT TCCATTTGGG CTTTGACCAA GTATTAACCA
3521 AATCGAACAC ATTTTGTCC CCCCTTTTAT CTGTTTTCAG
TCCGGTGGAG GCATTCATGA ATTTGCTGAT TCTCAGTTTG
3601 GTATGCAAAA TTTGACCCTG TGAATATTCC TCTTTGCTAT
TTGTATTGGT CCTTACGTTT GGAAGATTAC TCTTTTCATT
3681 ACAGGACATG TTTTGCATA TGGAGTGTCT AGAGCAGCAG
CAATAACCAA CATGTCTCTT GCGCTAAAAG AGATTCAAAT
3761 TCGTGGAGAA ATTCATTCAA ATGTTGATTA CACAGTTGAT
CTCTTGAATG TAAGAAATAA CACCTGTATA TTGAATCCCT
3841 GCTTTTGATG TAATACAACC ATTTTACATC TGGCATTCCCT
TTAAAGTAAT CCCATGCCTC AATTTTCTGT ATATTTTAAT
3921 CAGGCCTCAG ACTTCAAAGA AAACAGGATT CATACTGGCT
GGCTGGATAA CAGAATAGCA ATGCGAGTCC AAGCTGAGAG
4001 ACCTCCCTGG TATATTTTTCAG TGGTTGGAGG AGCTCTATAT
GTAAGAAACT ATGCCCTCT TACTGCAGCT TTTGTCAAAC
4081 CAATTGCGAA AAACACAATT AGTTGTTTAA TGCAAATCAC
TGCTTTGTGC TGCAGAAAAC AATAACAAGC AACACAGACA
4161 CTGTTTCTGA ATATGTTAGC TATCTCGTCA AGGGTCAGAT
TCCACCAAAG GTAGTGTTTT AATGGGCTTA AACTCTGGGT
4241 ATTGCTTGAA GATGAATGTT GTTGAATGTT GACCAATTTT
TTTTGTGCAG CATATATCCC TTGTCCATTC AACTGTTTCT
4321 TTGAATATAG AGGAAAGCAA ATATACAGTA AGTCTTACAT
TCCTCTAAAA GTGAGTCGTT GTAATGAAGT AACAGCTATC
4401 GTTGACGCTC ATCTACATCA TGTCACAGAT TGAAACTATA
AGGAGCGGAC AGGGTAGCTA CAGATTGCGA ATGAATGGAT
4481 CAGTTATTGA AGCAAATGTC CAAACATTAT GTGATGGTGG
ACTTTTAATG CAGGTGATTT TGTCTTGTTT TTATACCTGC
4561 CCATAAGTAT GATATATAAT GTGGTGAAGT ACTGGTGAAA
GAGTTCTGAT TCAGTAGCTG TAATTTCTTC AGTTGGATGG
4641 AAACAGCCAT GTAATTTATG CTGAAGAAGA GGCCGGTGGT
ACACGGCTTC TAATTGATGG AAAGACATGC TTGTTACAGG
4721 TAATAATTGT CTGTTTGTTT CTTTCCTTCT AACTAATCTT
GGTGTGTTGAT TTGATATTTT CCAGCCCTAT TTGTGGCTTT
4801 TTACGTCATT CGCTTCATTA GCATTCATTT CTTTCCACTT
TCATTTAAAG ATATTTAATT ACGATGTTTA TTTTGTAGTCA
4881 TGTGCCATAA GAAACCACAA TTAAGTCATT ATTATGGACT
AATTGATGTC ACAACAAGCT GCTATTGTGG TAAATGCGAC
4961 TACCTAAGCA GCCAAACAAA CCAGGTAATA ATGATAAGCG
TTATCAACGA CATGTCTTGT GAAGTTGTGA GTAAAGACA
5041 AGTTACATAG CTGTAAAAAA TTTAATAGGG CTCCAGTTTT
TATATTGCTA CTTCTGTTT TTAATTTGAG CAACTGCCGA
5121 CCACAATGCT TTGTGTTTAT TACAAATTTA CAATCAAGAA
TTTATTATAA TCAAGCTGTA ATAACTATG TCATGAACCT

FIGURE 18A CONTINUED

5201 TCTAAGGCAT CATGTTACCG CATCAATTTT TTGGTGATAA
AAAAGAACTA TTAATAATTA ATGATTCTTG ATCATGCCAC
5281 ATTGTATCCT CGTGTAATA AATGACACAT CGTTCTTGCA
GAATGATCAC GATCCTTCAA GGTTATTAGC TGAGACACCC
5361 TGCAAACCTT TCGTTTTCTT GGTTGCCGAT GGTGCTCATG
TTGAAGCTGA TGTACCATAT GCGGAAGTTG AGGTTATGAA
5441 GATGTGCATG CCCCTCTTGT CACCTGCTGC TGGTGTCAAT
AATGTTTTGT TGTCTGAGGG CCAGCCTATG CAGGTTACAT
5521 CACAACGTTT CCATTGCTTC TGCTGTACAT AACAATTGCA
CGTAAAGTAT CTGAACTTAA TATATTTTGT CTAGGCTGGT
5601 GATCTTATAG CAAGACTTGA TCTTGATGAC CCTTCTGCTG
TGAAGAGAGC TGAGCCATTT AACGGATCTT TCCCAGAAAT
5681 GAGCCTTCCC ATTGCTGCTT CTGGCCAAGT TCACAAAAGA
TGTGCCACAA GCTTGAATGC TGCTCGGATG GTCCTTGCA
5761 GATATGATCA CCCGATCAAC AAAGTAAACA TCAAGAACCT
TGCAGTACCT ATATTTCTGT TTTTTGTCA TGTGTTTCTT
5841 GTTCTCCTCA AACACCTTTT TTTTATGTT ACGAATTCTG
GATTATCCCT AATTCCTCCT TGACTTTGGC TCCCTTATGC
5921 TACAAAACCTG TTTGTAACTT ATGGAAGTTT ATTATGCCTG
TCTTGAAAAA TCTGAATTTG GGTGCTCTTT CTCTTATGTT
6001 AATCATGGTC ACTACTTACT TTACAGATTG TTTTATCCT
TGTGCTATTT TTCTCTCTTT CAGCAATTTA TGTTTTGGTT
6081 TGATTTTTAA AGATCATACC TATTTGTTCA GCATTTGTTT
ACCTTTTTCA TTATACCCGG CTTTCTTTTC AGGTTGTACA
6161 AGATCTGGTA TCCTGTCTAG ATGCTCCTGA GCTTCCTTTC
CTACAATGGG AAGAGCTTAT GTCTGTTTTA GCAACCAGAC
6241 TTCCAAGGCT TCTTAAGAGC GAGGTATGTG ATAATAGACG
TGATATGTAG CGTCTGGGTA GATTTCAATC TGCCATGTGG
6321 ATTTCTAATT GGTGATATAG AAGGGTTGTA TCACTTTGCA
TAAGCATCAT GTCATATAT CTTATTAATT TTCATTTTAC
6401 ATTGTCCAAT CACCGGTAAT TTTCCGTAGC TTATTGTGTA
ACTTCTAAAA TTGCCTTTTC CTAATAATGT AATCAAACT
6481 TGAAATATTT CATTTTAATT CTTCTTAGCT TGGAACATTT
GATACTTCAT CTCATCAATT TGCACTGCAG CTCAGAAGTT
6561 CTCATTTGAT TTTAACCCAG TTCTTGCTTA TTGATCTTCA
TTTTTTTTTG TGTGATCTAC CATAACGGTT TCAACTTTTT
6641 ATGCAACCAG TTGGAGGGTA AATACAGTGA ATATAAGTTA
AATGTTGGCC ATGGGAAGAG CAAGGATTTT CCTTCCAAGA
6721 TGCTAAGAGA GATAATCGAG GTCAGCATTA GGTTCCTTTT
ATGATATCCT TGTCTAGAAC TTCTACTGCT CTTTGTAACA
6801 TGTTTTCTTG TAGGAAAATC TTGCACATGG TTCTGAGAAG
GAAATTGCTA CAAATGAGAG GCTTGTTGAG CCTCTTATGA
6881 GCCTACTGAA GTCATATGAG GGTGGCAGAG AAAGCCATGC
ACACTTTATT GTGAAGTCCC TTTTCGAGGA CTATCTCTCG

FIGURE 18A CONTINUED

6961 GTTGAGGAAC TATTCAGTGA TGGCATTGAG GTTATCTGAC
ATTCCAAAAC TCAGATCTAC TAGATATCAT TGTTTTAAAA
7041 GGATATTCCT TTTCCCTTT TATTTACAAG AACATTATCA
ACTAATGTTT ATGCACATAT TATAGTTTGC ACCAGAATCT
7121 ATCAGTAATT AAGTAGCTAA TGTTTTTAGG TGTAAGAAAG
GTAGCAAATA GTTTGCATAT GGCTTATGTC TTGTTTCCTT
7201 AGAAACGCTT TCTGCTTATT TGTTTCCTTC AACTGTCATG
TTTTGTAGTC TGATGTGATT GAACGCCTGC GCCAACAACA
7281 TAGTAAAGAT CTCCAGAAGG TTGTAGACAT TGTGTTGTCT
CACCAGGTAA ATGTTTTGTG ATCTGATGGC TTAGTGCAAA
7361 TGATTACTGA AGCAGTCTTC ATTACTTACA ATTGCATTTT
GTTGTAGGGT GTGAGAAACA AACTAAGCT GATACTAACA
7441 CTCATGGAGA AACTGGTCTA TCCAAACCCT GCTGCCTACA
AGGATCAGTT GACTCGCTTT TCTTCCCTCA ATCACAAAAG
7521 ATATTATAAG GTGACAATGG CAACCTAAAA TAATGGAAGC
TTTCGAATCA TACTTTTCTG ATATCTTAGT CTAATGAATT
7601 ACTTACATCT TAATAAATGC AGTTGGCCCT TAAAGCTAGC
GAGCTTCTTG AACAAACCAA GCTTAGTGAG CTCCGCACAA
7681 GCATTGCAAG GAGCCTTTCA GAACTTGAGA TGTTTACTGA
AGAAAGGACG GCCATTAGTG AGATCATGGG AGATTTAGTG
7761 ACTGCCCCAC TGCCAGTTGA AGATGCACTG GTTTCTTTGT
TTGATTGTAG TGATCAAACCT CTTCAGCAGA GGGTGATCGA
7841 GACGTACATA TCTCGATTAT ACCAGGTATT ACATAAAATC
ATTTTTTGGA CTTGATCATG CTCTCCCTTT GCATTTCTAG
7921 GAATCATACA CTAAAGTTCC TATTGAAACA AGATGCTTAT
GCTTCTTTAA AATAAATCTG GCAGAATCTA GGTGTGGACA
8001 TATTTGATTT TACTACATCT TACTGCTCTT CAAGTTGGCT
AACACCAAAA ACATTTTCAG CCTCATCTTG TCAAGGATAG
8081 TATCCAGCTG AAATATCAGG AATCTGGTGT TATTGCTTTA
TGGGAATTCG CTGAAGCGCA TTCAGAGAAG AGATTGGGTG
8161 CTATGGTTAT TGTGAAGTCG TTAGAATCTG TATCAGCAGC
AATTGGAGCT GCACTAAAGG ATACATCACG CTATGCAAGC
8241 TCTGAGGGTA ACATAATGCA TATTGCTTTA TTGGGTGCTG
ATAATCAAAT GCATGGAACCT GAAGACAGGT ATGTTTCATG
8321 GCAATATTAG TGCTAATGAG CTGTATCTGG TTGTTAATAT
TTGGTGGAAT AATTCCTTTA ATAATTAACCT CATTCCTTTC
8401 AGTGGTGATA ACGATCAAGC TCAAGTCAGG ATAGACAAAC
TTTCTGCGAC ACTGGAACAA AATACTGTCA CAGCTGATCT
8481 CCGTGCTGCT GGTGTGAAGG TTATTAGTTG CATTGTTCAA
AGGGATGGAG CACTCATGCC TATGCGCCAT ACCTTCCTCT
8561 TGTCGGATGA AAAGCTTTGT TATGAGGAAG AGCCGGTTCT
CCGGCATGTG GAGCCTCCTC TTTCTGCTCT TCTTGAGTTG
8641 GTATGTGACT ATCAAATGC CTGCGTGTTG TTTGATACAC
TCCATAACTC CATAGTCCAT ATGCTTTAAT TATCCTGTTT

FIGURE 18A CONTINUED

8721 GCTATTTGTA TTTATTTAGC CTGTTGTGGT TACAGGGTAA
GTTGAAAGTG AAAGGATACA ATGAGGTGAA GTATACACCG
8801 TCACGTGATC GTCAGTGGAA CATATACACA CTTAGAAATA
CAGAAAACCC CAAAATGTTG CACAGGGTGT TTTTCCGAAC
8881 TCTTGTGAGG CAACCCGGTG CTTCCAACAA ATTCACATCA
GGCCACATCA GTGATGTTGA AGTGGGAGGA GCTGAGGAAT
8961 CTCTTTCATT TACATCGAGC AGCATATTAA GATCGCTGAT
GACTGCTATA GAAGAGTTGG AGCTTCACGC GATTCCGACA
9041 GGTCACCTC ATATGTTTTT GTGCATATTG AAAGAGCAAA
AGCTTCTTGA TCTTGTTCCT GTTTCAGGGT AAGCCTGCAC
9121 ACTCTTCATT TGGTGGCACA TAATAGGTCT TGCTCTTGTG
TTTTGCCTTC AATGAACTTT TCATCTTACT CAGGAACACA
9201 GTTGTGGATA TTGGCCAAGA TGAAGCTACT GCATGCTCGC
TTCTGAAAGA AATGGCTCTA CAGATACATG AACTTGTGGG
9281 TGCAAGGATG CATCATCTTT CTGTATGCCA ATGGGAGGTG
AAACTTAAGT TGGACAGCGA TGGGCCTGCG AGTGGTACCT
9361 GGAGAGTTGT AACAACCAAT GTTACTAGTC ACACCTGCAC
TGTGGATGTA AGTTCCTTCC CTTGCATCT TGTTTTTTCT
9441 GTGTGTAACC AATCAAATA AATTGAGCTT GTAGCATTTA
TTCATAGAAC TATTGTGATC ATTTAGTTGT CATTTCACAC
9521 TAATTATGTT TGGAAGCTCA TTGTGTTTTT AATGCTTTTA
GATCTACCGT GAGGTGAAG ATACAGAATC ACAGAACTA
9601 GTATAACCACT CTGCTCCATC GTCATCTGGT CCTTTGCATG
GCGTTGCACT GAATACTCCA TATCAGCCTT TGAGTGTTAT
9681 TGATCTGAAA CGTTGCTCCG CTAGAAACAA CAGAACTACA
TACTGCTATG ATTTTCCGTT GGTGAGTATC TCCCTCTCTG
9761 TCTCTATACA TGTATCTATT GTGTTAGCAG ATTCTTAGTG
ATATTATGTG TCCAAAAGCT GACAAGTACT CAAAATGTA
9841 GGCATTTGAA ACTGCAGTGC AGAAGTCATG GTCTAACATT
TCTAGTGACA ATAACCGATG TTATGTTAAA GCAACGGAGC
9921 TGGTGTTTGC TCACAAGAAT GGGTCATGGG GCACTCCTGT
AATTCCTATG GAGCGTCCTG CTGGGCTCAA TGACATTGGT
10001 ATGGTAGCTT GGATCTTGGA CATGTCCACT CCTGAATATC
CCAATGGCAG GCAGATTGTT GTCATCGCAA ATGATATTAC
10081 TTTTAGAGCT GGATCGTTTG GTCCAAGGGA AGATGCATTT
TTTGAACTG TTACCAACCT AGCTTGTGAG AGGAAGCTTC
10161 CTCTCATCTA CTTGGCAGCA AACTCTGGTG CTCGGATCGG
CATAGCAGAT GAAGTAAAAT CTTGCTTCCG TGTGGATGG
10241 TCTGATGATG GCAGCCCTGA ACGTGGGTTT CAGTACATTT
ATCTGACTGA AGAAGACCAT GTCGTATTA GCACTTCTGT
10321 TATAGCGCAC AAGATGCAGC TTGATAATGG TGAAATTAGG
TGGGTTATCG ATTCTGTTGT GGGGAAGGAG GATGGGCTAG
10401 GTGTGGAGAA CATACATGGA AGTGCTGCTA TTGCCAGTGC
CTATTCTAGG GCCTATGAGG AGACATTTAC GCTTACATTT

FIGURE 18A CONTINUED

10481 GTGACTGGAC GGACTGTTGG AATAGGAGCA TATCTTGCTC
GACTTGGCAT ACGGTGCATA CAGCGTACTG ACCAGCCCAT
10561 TATCCTAACT GGGTTCTCTG CTTGAACAA GCTTCTTGGC
CGGGAAGTTT ACAGCTCCCA CATGCAGTTG GGTGGCCCCA
10641 AAATTATGGC GACAAACGGT GTTGTCCATC TGACAGTTTC
AGATGACCTT GAAGGTGTAT CTAATATATT GAGGTGGCTC
10721 AGCTATGTTC CTGCCAACAT TGGTGGACCT CTTCTATTA
CAAAATCTTT GGACCCACCT GACAGACCCG TTGCTTACAT
10801 CCCTGAGAA ACATGCGATC CTCGTGCTGC CATCAGTGGC
ATTGATGATA GCCAAGGGAA ATGTTGGGG GGCATGTTTCG
10881 ACAAAGACAG TTTTGTGGAG ACATTTGAAG GATGGGCGAA
GTCAGTTGTT ACTGGCAGAG CTAACTCGG AGGGATTCCG
10961 GTGGGTGTTA TAGCTGTGGA GACACAGACT ATGATGCAGC
TCATCCCTGC TGATCCAGGC CAGCTTGATT CCCATGAGCG
11041 GTCTGTTCTT CGTGCTGGGC AAGTCTGGTT TCCAGATTCA
GCTACTAAGA CAGCGCAGGC AATGCTGGAC TTCAACCGTG
11121 AAGGATTACC TCTGTTTCATC CTTGCTAACT GGAGAGGCTT
CTCTGGTGGA CAAAGAGATC TTTTGAAGG AATCCTTCAG
11201 GCTGGGTCAA CAATTGTTGA GAACCTTAGG ACATACAATC
AGCCTGCCTT TGTATATATC CCCAAGGCTG CAGAGCTACG
11281 TGGAGGGGCT TGGGTCGTGA TTGATAGCAA GATAAATCCA
GATCGCATTG AGTTCTATGC TGAGAGGACT GCAAAGGGCA
11361 ATGTTCTCGA ACCTCAAGGG TTGATCGAGA TCAAGTTCAG
GTCAGAGGAA CTCCAAGAGT GCATGGGTAG GCTTGATCCA
11441 GAATTGATAA ATCTGAAGGC AAAGCTCCAG GGAGTAAAGC
ATGAAAATGG AAGTCTACCT GAGTCAGAA CCCTTCAGAA
11521 GAGCATAGAA GCCCGGAAGA AACAGTTGTT GCCTTTGTAT
ACTCAAATTG CGGTACGGTT CGCTGAATTG CATGACACTT
11601 CCCTTAGAAT GGCTGCTAAG GGTGTGATTA AGAAGGTTGT
AGACTGGGAA GATTCTAGGT CGTTCTTCTA CAAGAGATTA
11681 CGGAGGAGGA TATCCGAGGA TGTTCTTGCG AAGGAAATTA
GAGGTGTAAG TGGCAAGCAG TTTTCTCACC AATCGGCAAT
11761 CGAGCTGATC CAGAAATGGT ACTTGGCCTC TAAGGGAGCT
GAAACAGGAA GCACTGAATG GGATGATGAC GATGCTTTTG
11841 TTGCCTGGAG GGAAAACCCT GAAAACCTACC AGGAGTATAT
CAAAGAACTC AGGGCTCAAA GGTATCTCA GTTGCTCTCA
11921 GATGTTGCAG ACTCCAGTCC AGATCTAGAA GCCTTGCCAC
AGGGTCTTTC TATGCTACTA GAGAAGGTAC ACATACTTAC
12001 TGTTTTATTT CTTGAAAGTA ATTTATTGAG GTTGAGTGAA
ATGTTGCCAT CTTATGTATA TATAGTGTCT TAACAAATAA
12081 TGATAATGCT TTTTCTTTGG TCACTCGCTT GTTCAGATGG
ATCCCTCAAG GAGAGCACAG TTTGTTGAGG AAGTCAAGAA
12161 AGTCCTTAAA TGA

FIGURE 18B

Triticum aestivum plastidal ACCase NC057798.1 (SEQ ID NO: 960)

1 MGSTHLPIVG FNASTTPSLS TIRPVNSAGA AFQPSAPSRT
SKKKSRRVQS LRDGGDGGVS DPNQSIRQGL AGIIDLPKEG
81 TSAPEVDISH GSEEPGRSYQ MNGILNEAHN GRHASLSKV
EFCVALGGKT PIHSLVANN GMAAAKFMRS VRTWANETFG
161 SEKAIQLIAM ATPEDMRINA EHIRIADQFV EVPGGTNNNN
YANVQLIVEI AVRTGVSAVW PGWGHASENP ELPDALNANG
241 IVFLGPPSSS MNALGDKVGS ALIAQAAGVP TLPWGSQVE
IPLEVCLDSI PAEMYRKACV STTEEALASC QMIGYPAMIK
321 ASWGGGGKGI RKVNNDDVDR ALFKQVQGEV PGSPIFIMRL
ASQSRHLEVQ LLCQYGNVA ALHSRDCSVQ RRHQKIIIEG
401 PVTVAPRETV KELEQAARL AKAVGYVGAA TVEYLYSMET
GEYYFLELNP RLQVEHPVTE WIAEVNLPAA QVAVGMGIPL
481 WQVPEIRRFY GMDNGGGYDI WRKTAALATP FNFDEVDSQW
PKGHCVAVRI TSEDPDDGFK PTGGKVKEIS FKSKPNVWAY
561 FSVKSGGGIH EFADSQFGHV FAYGVSRAAA ITNMSLALKE
IQIRGEIHSN VDYTVDLLNA SDFKENRIHT GWLDNRIAMR
641 VQAERPPWYI SVVGALYKT ITSNTDTVSE YVSYLVKGQI
PPKHISLVHS TVSLNIEESK YTITETIRSGQ GSYRLRMNGS
721 VIEANVQTLG DGGLLMQLDG NSHVIYAEAE AGGTRLLIDG
KTCLLQNDHD PSRLLAETPC KLLRFLVADG AHVEADVPIA
801 EVEVMKMCMP LLSPAAGVIN VLLSEGQPMQ AGDLIARLDL
DDPSAVKRAE PFNGSFPEMS LPAAAGQVH KRCATSLNAA
881 RMVLAGYDHP INKVVDLVS CLDAPELPFL QWHEELMSVLA
TRLPRLLKSE LEGKYSEYKL NVGHGKSKDF PSKMLREIIE
961 ENLAHGSEKE IATNERLVEP LMSLLKSYEG GRESHAFIV
KSLFEDYLSV EELFSDGIQS DVIERLRQQH SKDLQKVVDI
1041 VLSHQGVRNK TKLILTLMEK LVYPNPAAYK DQLTRFSSLN
HKRYKLLALK ASELLEQTKL SELRTSIARS LSELEMFTEE
1121 RTAISEIMGD LVTAPLPVED ALVSLFDCSD QTLQQRVIET
YISRLYQPHL VKDSIQLKYQ ESGVIALWEF AEAHSEKRLG
1201 AMVIVKSLES VSAAIGAALK DTSRYASSEG NIMHIALLGA
DNQMHGTEDS GDNDQAQVRI DKLSATLEQN TVTADLRAAG
1281 VKVISCIVQR DGALMPMRHT FLLSDEKLCY EEFPVLRHVE
PPLSALLELG KLVKGYNEV KYTPSRDRQW NIYTLRNTEN
1361 PKMLHRVFFR TLVRQPGASN KFTSGHISDV EVGGAEESLS
FTSSSILRSL MTAIEELEH AIRTGHSHMF LCILKEQKLL
1441 DLVPVSGNTV VDIGQDEATA CSLKEMALQ IHELVGARMH
HLSVCQWEVK LKLDSDGPAS GTWRVVTTNV TSHTCTVDIY
1521 REVEDTESQK LUYHSAPSSS GPLHGVALNT PYQPLSVIDL
KRCSARNNRT TYCYDFPLAF ETAVQKSWSN ISSDNNRCYV
1601 KATELVFAHK NGSWGTPVIP MERPAGLNDI GMVAWILDMS
TPEYPNGRQI VVIANDITFR AGSFGPREDA FFETVTNLAC

FIGURE 18B CONTINUED

1681 ERKLPLIYLA ANSGARIGIA DEVKSCFRVG WSDDGSPERG
FQYIYLTEED HARISTSVIA HKMQLDNGEI RWVIDSVVGK
1761 EDGLGVENIH GSAAIASAYS RAYEETF TLT FVTGRTVGIG
AYLARLGIRC IQRTDQPIIL TGFSALNKLL GREVYSSHMQ
1841 LGGPKIMATN GVVHDTVSDD LEGVSNILRW LSYVPANIGG
PLPITKSLDP PDRPVAYIPE NTCDPRAAIS GIDDSQGKWL
1921 GGMFDKDSFV ETFEGWAKSV VTGRAKLGGI PVGVIAVETQ
TMMQLIPADP GOLDSHERSV PRAGQVWFPD SATKTAQAML
2001 DFNREGLPLF ILANWRGFSG GQRDLFEGIL QAGSTIVENL
RTYNQPAFVY IPKAAELRGG AWVVIDSKIN PDRIEFYAER
2081 TAKGNVLEPQ GLIEIKFRSE ELQECMGRLD PELINLKAKL
QGVKHENGSL PESESLQKSI EARKKQLLPL YTQIAVRFAE
2161 LHDTSLRMAA KGVIKKVVDW EDSRSFFYKR LRRRISEDVL
AKEIRGVSGK QFSHQSAIEL IQKWYLASKG AETGSTEWDD
2241 DDAFVAWREN PENYQEYIKE LRAQRVSQLL SDVADSSPDL
EALPQGLSML LEKMDPSRRA QFVEEVKKVL K

FIGURE 19A

cDNA sequence of *Triticum aestivum* plastidal ACCase
NC057797.1 (SEQ ID NO: 961)

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1 ATGGGATCCA CACATTTGCC CATCGTCGGC TTAAATGCCT
CAACAACACC ATCGCTATCC ACTATTGCC CGGTAAATTC
81 AGCTGGTGCT GCATTCCAAC CATCTGCCCC TTCTAGAACC
TCCAAGAAGA AAAGTCGTCG GTTTCAGTCA TTAAGGGATG
161 GAGGCGATGG AGGCGTGTC GACCCTAACC AGTCTATTCG
CCATGGTAAC AACCTGAAAA CCATTTCTTT TCTACAAACT
241 ACACCTTGTT GTCATCCTCA GACTTGTGTA GATACTTTTA
TTGACTGAGA GCATGTTGGT TTAGTGTA GGTATCTCAA
321 TGCTAGATCA CAGAATGGCG GTTATTGACC TCGTTAAAGA
TGCAAATGAC TGCAGCAATA TTAAACAATT TTTTATGTG
401 ATACGATAGT ACTTTTTTAT AACGAGTAAT GAGTAAAGCC
CAGTTTTTCT TGATTAAATG GTTTTAGTGG AAGGAATGTT
481 TAATATTCAA AATGATGTTT TATAAGGGAA GGAACATGAA
AGTGCAAGAA TACATATAAG CAGCATATTA GTTATGTATG
561 ACTGAGTCAT TTTCCTTATA TAATACTTCT AAAAGAGAAG
AATGTCTAGA AACCTTTTCT GATAATTTAC TAGCATGAAG
641 AACATAACA TTCATAAAGT TGTCACCTGT GCTTCTTCTT
AGCTATCGTG TAACTTGCT CAGTTTCTAA TGCATATCTG
721 GATGTAGGTC TTGCCGGCAT CATTGACCTC CCAAAGGAGG
GCACATCAGC TCCGGAAGTG GATATTTTAC AGTAAGTACT
801 TTAGCATTTT AAAATTAGAA TTAGCATCTC TCTTTAAAT
GGAAAAATAT CTATAATTTA ATATAGAATT ATTATAGATT
881 ATGCTTATTT TATTATTCGC ACATGCTGAT ATTTTGAATT
GCATTTGATA TATTTTATA GATTTTACT GAACTACTCC
961 CTCCATAAAC TAATATAAGA GCGTTTAGAA CACTATTTTA
GTGATCTAAA CACTCTTATA TTGGTTTACA GAGGGAGTAC
1041 ATTATAGTTG CCATACACAA TGCATTTGCT CAGGCACATC
ACTGTTGCAC TGCATGGAGT ATTTTGTGC ACTTCGGAAT
1121 CATTTTCAGA AAGCCTTTTG CCTATAATTT TAATAATAAT
AATTTAATTA CCATCTGAAA CCCGTACCCA CATGACGGAT
1201 GAAAGCTCAT TTGAAGTTTC CGATTTATAG TAGCCAAGTA
TTTGTATGT TATATTGTTA TGGTCACCAT CGTAATGAAT
1281 TTGTTCTTTT TTCTCTAGTG GGTCCGAAGA ACCCAGGGGC
TCCTACCAA TGAATGGGAT ACTGAATGAA GCACATAATG
1361 GGAGGCATGC TTCGCTGTCT AAGGTTGTTG AATTTGTAC
GGCATTTGGC GGCAAAACAC CAATTCACAG TGTATTAGTT
1441 GCGAACAATG GAATGGCAGC AGCTAAGTTC ATGCGGAGTG
TCCGAACATG GGCTAATGAA ACATTTGGGT CAGAGAAGGC
1521 AATTCAGTTG ATAGCTATGG CTACTCCAGA AGACATGAGG
ATAAATGCAG AGCACATTAG AATTGCTGAT CAATTTGTTG
1601 AAGTACCCGG TGGAACAAAC AATAACAAC ATGCAAATGT
CCAATCATA GTGGAGGTTA GTATTGCTCA TCCGTTGATG
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FIGURE 19A CONTINUED

1681 TGCAACCGAT GCACAAGTTG TTCATTTAGC ATGACATGAC
AATTTTGCTG TTGCAGATAG CAGTGAGAAC CGGTGTTTCT
1761 GCTGTTTGGC CTGGTTGGGG CCATGCATCT GAGAATCCTG
AACTTCCAGA TGCACTAAAT GCAAACGGAA TTGTTTTTCT
1841 TGGGCCACCA TCATCATCAA TGAACGCACT AGGTGACAAG
GTTGGTTCAG CTCTCATTGC TCAAGCAGCA GGGGTTCCGA
1921 CTCTTCCTTG GAGTGGATCA CAGGTGAATC TCACATTCTC
TGATAACTCA TCGTCTGATC TTTGTACTGG ACACATTTAA
2001 TAACCGAAAAG ACACTATATT ATAGGTGGAA ATTCCATTAG
AAGTTTGTTT GGACTCGATA CCTGCGGAGA TGTATAGGAA
2081 AGCTTGTGTT AGTACTACAG AGGAAGCACT TGCGAGTTGT
CAGATGATTG GGTATCCCGC CATGATTAAA GCATCATGGG
2161 GTGGTGGTGG TAAAGGGATC CGAAAGGTAC ATCATTCATT
TGATTGGACT ATATTTGAAA GATTGTGTGG GTTGTGTGT
2241 GATATATTAT GCCCAGAGTT AGCTCTAACC TTTTCAACAT
ATTAAC TCAA TATCTGTTGC AGGTTAATAA TGACGATGAT
2321 GTCAGAGCAC TGTTTAAGCA AGTGCAAGGT GAAGTTCCTG
GCTCCCCAAT ATTTATCATG AGACTTGCAT CTCAGGTTAG
2401 ACTTCTCAGC AAGTTGCATT TTTTCCAAGC ATGTTATTCC
CGAGTTGTAT ATTACACGCC TGGAAGCTTC ATATGTTATT
2481 CCTTGCAGGC TAGAAATGTA TGCTGGAACA TGTGCTCATA
TGGTATATTA TGTTTTAATC CTCCCCTTTT TTCTTTTGTA
2561 GAGTCGACAT CTTGAAGTTC AGTTGCTTTG TGATCAATAT
GGCAATGTAG CTGCGCTTCA CAGTCGTGAC TGCAGTGTGC
2641 AACGGCGACA CCAAAGGTA ACGCTGGTCC AGATCTGAAA
ACATCACGTG TATTGCATGT TCTACTTCAT ACTTGTAGTT
2721 GTTTATCAAA AGGACCAATT GCGTCCATTT TTTGTTTATA
CCAGATTATT GAGGAAGGAC CAGTTACTGT TGCTCCTCGC
2801 GAGACAGTGA AAGAGCTAGA GCAAGCAGCA AGGAGGCTTG
CTAAGGCTGT GGGTTATGTT GGTGCTGCTA CTGTTGAATA
2881 TCTCTACAGC ATGGAGACTG GTGAATACTA TTTTCTGGAA
CTTAATCCAC GGTTGCAGGT ATATTCTTTT GAACATTCCT
2961 CTGGACTTAG TTTTTTGTCG TCAGTTATTT ACATTGTTAA
ATGGCATAA TCCAGGTTGA GCATCCAGTC ACCGAGTGGA
3041 TAGCTGAAGT AAACCTGCCT GCAGCTCAAG TTGCAGTTGG
AATGGGTATA CCCCTTTGGC AGGTTCCAGG TAATAATTAT
3121 ATTATTGTAA GTTTTTTAGT TACTTTCCCA TGTTATTCT
GTGCCTAACT TTCTCCTTAT ACAGAGATCA GACGTTTCTA
3201 TGGAATGGAC AATGGAGGAG GCTATGACAT TTGGAGGACA
ACAGCAGCTC TTGCTACTCC ATTTAACTTC GATGAAGTGG
3281 ATTCTCAATG GCCAAAGGGT CATTGTGTAG CAGTTAGGAT
AACCAGTGAG GATCCAGATG ACGGATTCAA GCCTACCGGT
3361 GGAAAAGTAA AGGTGAGATT TCATGATGCC GTCTATGGTT
CTAGCACATT AGATTTGTAA ACTGACCGGA CCTTGATTTT

FIGURE 19A CONTINUED

3441 CTTATAATTC AGGAGATCAG TTTTAAAAGC AAGCCAAATG
TTTGGGCCTA TTTCTCTGTT AAGGTAAGCT GTTCATGGCT
3521 CTGTTGCACT GTTATATTGT CGAGTTGGGC TTTGACCAAG
TATTAACCAA ATCGAACACA TTTTGTTC CCCTTTTATC
3601 TGTTTTTCAGT CCGGTGGAGG CATTTCATGAA TTTGCTGATT
CTCAGTTTGG TATGCAAAAT TTGACCCTGT GAATATTCCT
3681 CTTTGCTATT TGTATTGGTC CTTACGTTTG GAAGATTACT
CTTTTCATTT CAGGACATGT TTTTGCATAT GGAGTGTCTA
3761 GAGCAGCAGC AATAACCAAC ATGTCTCTTG CGCTAAAAGA
GATTCAAATT CGTGGAGAAA TTCATTCAAA TGTTGATTAC
3841 ACAGTTGATC TCTTGAATGT AAGAAATACA CCTGTATATT
GAATCCCTGC TTTTGATGTA ATACAACCAT TTTACATCTG
3921 GCATTCCCTT AAAGTTATCC CATGCCTCAA TTTTCTGTAT
CTTTAAATCA GGCCTCAGAC TTCAAAGAAA ACAGGATTCA
4001 TACTGGCTGG CTGGATAACA GAATAGCAAT GCGAGTCCAA
GCTGAGAGAC CTCCCTGGTA TATTTTCAGTG GTTGGAGGAG
4081 CTCTATATGT AAGAACTAT GCCCCTCTTA CTGCAGCTTT
TGTCAAACCA ATTGCGAAAA ACACAATTAG TTGTTTAATG
4161 CAAATCACTG TCTTGTGCTG CAGAAAACAA TAACGAGCAA
CACAGACACT GTTTCTGAAT ATGTTAGCTA TCTCGTCAAG
4241 GGTCAGATTC CACCAAAGGT AGTGTTTTAA TGGGCTTAAA
CTCTGGATAT TGCTTGAAGA TGAATGTTGT TGAATGTTGA
4321 CCAATTTCTT TTGTGCAGCA TATATCCCTT GTCCATTCAA
CTGTTTCTTT GAATATAGAG GAAAGCAAAT ATACAGTAAG
4401 TCTTACATTC CTTTAAAAAA ATGAGTCGTT GTGATGAAGT
AACAGCTATC GTTGACGCTC ATCTACACCA TGTCACAGAT
4481 TGAACTATA AGGAGCGGAC AGGGTAGCTA CAGATTGCGA
ATGAATGGAT CAGTTATTGA AGCAAATGTC CAAACATTAT
4561 GTGATGGTGG ACTTTTAATG CAGGTGATTT TGTCTTGTTT
TTATACCTGT CCATAAGTAT GATATATAAT GTTGTGAAGT
4641 ACTGGTGAAA GAGTTCTGAT TCAGTAGCTG TAATTTCTTC
AGTTGGATGG AAACAGCCAT GTAATTTATG CTGAAGAAGA
4721 GGCCGGTGGT ACACGGCTTC TAATTGATGG AAAGACATGC
TTGTTACAGG TAATAATTGT CTGTTTGTTT CTTTCCTTCT
4801 AACTAATCTT GGTGTTTGAT TTGATATTTT CCAGCCCTAT
TTGTGGCTTT TTACGTCATT CGCTTCATTA GCATTCATTT
4881 CTTTCCACTT TCATTTAAAG AAATTTAATT ACGATGTTTA
TTTCTAGTCA TGTGCCATAA GAAACCACAA TTAAGTCATT
4961 ATTATGGACT AATTGATGTC ACAACAAGCT GCTATTGTGG
TAAATGTGAC TACCTAAGCA GCCAAACAAA CCAGGTCATA
5041 ATGATAAGCG TTATCAACGG CATGTCTTGT GAAGTTGTGA
TGTAAGACA AGTTACATAG CTGTAAAAAA TTTAATACGG
5121 CTCCAGTTTT TATATTGCTA CTTCTGTTTC TTAATCTGAG
CAACTACTGA CCACAATGCT TTGTGTTTAT TACAAATTTA

FIGURE 19A CONTINUED

5201 ATCAAGAATT TATTATAATC AAGCTGTAAT AAACATATGTC
ATGAACCTTC TAGGGCATCA TGTTACTGCA TCAATTTTAT
5281 GGTGATAAAA AAGGAACAT TAATAATTAA TGATTCTTGA
TCATGCCACA TTGTATCCTT GTGTAAATAA ATGACACATC
5361 GTTCTTGCAG AATGATCACG ATCCTTCAAG GTTATTAGCT
GAGACACCCT GCAAACCTTCT TCGTTTCTTG GTTGCCGATG
5441 GTGCTCATGT TGAAGCTGAT GTACCATATG CGGAAGTTGA
GGTTATGAAG ATGTGCATGC CCCTCTTGTC ACCTGCTGCT
5521 GGTGTCATTA ATGTTTTGTT GTCTGAGGGC CAGCCTATGC
AGGTTACATC ACAACGTTTC CATTGCTTCT GCTGTACATA
5601 ACAATTGCAC GTAAAGTATC TGAACCTAAT ATATTTTTTC
TAGGCTGGTG ATCTTATAGC AAGACTTGAT CTTGATGACC
5681 CTTCTGCTGT GAAGAGAGCT GAGCCATTTA ACGGGTCTTT
CCCAGAAATG AGCCTTCCTA TTGCTGCTTC TGGCCAAGTT
5761 CACAAAAGAT GTGCCACAAG CTTGAATGCT GCTCGGATGG
TCCTTGACAG ATATGATCAC CCGATCAACA AAGTAAACAT
5841 CAAGAACCTT GCAGTACCTA TATTTCTGGT TTTTGTGCAC
GTGTTTCTTG TTCTCCTCAA GCACCTTTTT TTTTATGAA
5921 TTCTGGATTA TCCCTAATTC CTCCTTGACT TTGGCTCCCT
TATGCTACAA AACTGTTTGT AACCTATGGA AGTTTATTAT
6001 GCCTGTCTTG GAAATCTGA ATTTGGGTGC CCTTCTCGT
ATGTTAATCA TGGTCACTAC TTTACAGATT GTTTTTATCC
6081 TTGTGCTATT TTTCTCTCTT TCAGCAATTG GTTTGATTTT
TTCCGATCAT ACCTATTTGT TCAGCATTTG TTTACCTTTT
6161 TCATTATACC CGGCTTTCTT TTCAGGTTGT ACAAGATCTG
GTATCCTGTC TAGATGCTCC TGAGCTTCCT TTCCTACAAT
6241 GGGAAGAGCT TATGTCTGTT TTAGCAACTA GACTTCCAAG
GCTTCTTAAG AGCGAGGTAT GTGATAATAG ACGTGATATG
6321 TAGCGTCTGG GTAGATTTCA ATCTGCCATG TGGATTTCTA
ATTGGTTATA TAGAAGGGTT GTATCACTTT GCATAAGCAT
6401 CATGATTTTA CATTGTCCAA TCACCGGTAA TTTTCCGTAG
CTTATTGTGT AACTTCTAAA ATTGCCTTTT CTAATAATG
6481 TAATCAAAAC TTGAAATATT TCATTTTAAT ACTTCTTAGC
TTGGAACATT TGATACTTCA TCTCATCAAT TTGCACCGTA
6561 GCTCAGAAAGT TCTCATTTGA TTTTAACCCA GTTTTTGCTT
ATTGATCTTT ATATTTTTTT TGTGTTCTAC CATAACGGTT
6641 TCAACTTTTT ATGCAACCAG TTGGAGGGTA AATACAGTGA
ATATAAGTTA AATGTTGGCC ATGGGAAGAG CAAGGATTTT
6721 CCTTCCAAGA TGCTAAGAGA GATAATCGAG GTCAGTATTA
GGTTTCTTTT ATGATATCCT TGTCTAGAAC TTCTACTGCT
6801 TTTTGTAACA TGTTTTCTTG TAGGAAAATC TTGCACATGG
TTCTGAGAAG GAAATTGCTA CAAATGAGAG GCTTGTTGAG
6881 CCTCTTATGA GCCTACTGAA GTCATATGAG GGTGGCAGAG
AAAGCCATGC ACACCTTATT GTGAAGTCCC TTTTCGAGGA

FIGURE 19A CONTINUED

6961 CTATCTCTCG GTTGAGGAAC TATTCAGTGA TGGCATTTCAG
GTTATCTGAC ATTCCAAAAC TCAGATCTAC TAGATATCAT
7041 TGCTTTAAAA GGATATTCCT TTTCCCTTT TATTTATGAG
AACATTATCA ACTAATGTTC ATGCACATAT TATAGTTCAC
7121 ACCAGAATCT ATCAGTAATT AAGTAGCTAA TGATTTTAGG
TGTA AAAAAG GTAGCAAATA GTTTTCTTAT GGCTTATGTC
7201 TTGTTTCCTT AGAAATGCTT TCTGCTTATT TGTTTCCTTC
AACTGTCATG TTTTGTAGTC TGATGTGATT GAGCGCCTGC
7281 GCCAACAACA TAGTAAAGAT CTCCAGAAGG TTGTAGACAT
TGTGTTGTCT CACCAGGTAA ATGTTTTGTG ATCTGATGGC
7361 TTATTGCAAA TGATTACTGA AGCAGTCTTC ATTACTTAAA
ATTCGATTTT GTTGTAGGGT GTGAGAAACA AAATAAGCT
7441 GATACTAACA CTCATGGAGA AACTGGTCTA TCCAAACCCT
GCTGCCTACA AGGATCAGTT GACTCGCTTT TCTCCCTCA
7521 ATCACAAAAG ATATTATAAG GTGACAATGG CAACCTAAAA
TAATGGAAGC TTTTGAATAA TACTTTTCTG ATATCTTAGT
7601 CTAATGAAGT ACTTACGTCA TAATAAATGC AGTTGGCCCT
TAAAGCTAGC GAGCTTCTTG AACAAACCAA GCTTAGTGAG
7681 CTCCGCACAA GCATTGCAAG GAGCCTTTCA GAACTTGAGA
TGTTTACTGA AGAAAGGACG GCCATTAGTG AGATCATGGG
7761 AGATTTAGTG ACTGCCCCGC TGCCAGTTGA AGATGCACTG
GTTTCTTTGT TTGATTGTAG TGATCACACT CTTCAGCAGA
7841 GGGTGATCGA GACGTACATA TCTCGATTAT ACCAGGTATT
ACATAAAATC ATTTTTTGGA CTTGATCATA CTCTCCCTTT
7921 GCATTTCTAG GAAGCATACA CTAAAGTTCC TATTGAAACA
AGATGCTTAT GCTTCTTTAA AATAAATCTG GCAGAATCTA
8001 GGTGTGGAAA TATTTGATTT TACTACATCT TACTGCTCTT
CAAGTTGGCT AACACCAAAA CCATTTTCAG CCTCATCTTG
8081 TCAAGGATAG TATCCAGCTG AAATATCAGG AATCTGGTGT
TATTGCTTTA TGGGAATTCG CTGAAGCGCA TTCAGAGAAG
8161 AGATTGGGTG CTATGGTTAT TGTGAAGTCG TTAGAATCTG
TATCAGCAGC AATTGGAGCT GCACTAAAGG ATACATCACG
8241 CTATGCAAGC TCTGAGGGTA ACATAATGCA TATTGCTTTA
TTGGGTGCTG ATAATCAAAT GCATGGAACCT GAAGACAGGT
8321 ATGTTTCATGT GCAATATTAG TGCTAATGAG CTGTATCTGG
TTGTTAATAT TTGGTGAAT AATTCCTTTA ATAATTTAAC
8401 TCATTCCCTT CAGTGGTGAT AACGATCAAG CTCAAGTCAG
GATAGACAAA CTTTCTGCAA CACTGGAACA AAATACTGTC
8481 ACAGCTGATC TCTGTGATGC TGGTGTGAAG GTTATTAGTT
GCATTGTTCA AAGGGATGGA GCACTCATGC CTATGCGCCA
8561 TACCTTCCTC TTGTCGGATG AAAAGCTTTG TTATGAGGAA
GAGCCGGTTC TCCGGCATGT GGAGCCTCCT CTTTCTGCTC
8641 TTCTTGAGTT GGTATGTGAC TATCAAAATG CCTGCGTGTT
GTTTGATACA CTCCATAGTC CATATGCTTT AATTATCCTG

FIGURE 19A CONTINUED

8721 TTTGCTATTT GTATTTATTT AGCCTGTTGT GGTACAGGG
TAAGTTGAAA GTGAAAGGAT ACAATGAGGT GAAGTATACA
8801 CCGTCACGTG ATCGTCAGTG GAACATATAC ACACTTAGAA
ATACAGAAAA CCCCCAAATG TTGCACAGGG TGTTCCTCG
8881 AACTCTTGTC AGGCAACCCG GTGCTTCCAA CAAATTCACA
TCAGGCCACA TCAGTGATGT TGAGGTGGGA GGAGCTGAGG
8961 AATCTCTTTC ATTTACATCG AGCAGCATAT TAAGATCGCT
GATGACTGCT ATAGAAGAGT TGGAGCTTCA CGCGATTAGG
9041 ACAGGTCACT CTCATATGTT TTTGTGCATA TTGAAAGAGC
AAAAGCTTCT TGATCTTGTT CCTGTTTCAG GGTAAGCCTG
9121 CACACTGTTC ATTTGGTGGC ACATAATAGG TCTTGCTCTT
GTGTTTTGCC TTCAATGAAC TTTTCATCTT ACTCAGGAAC
9201 AAAGTTGTGG ATATTGGCCA AGATGAAGCT ACTGCATGCT
CGCTTCTGAA AGAAATGGCT CTACAGATAC ATGAACTTGT
9281 GGGTGCAAGG ATGCATCATC TTTCTGTATG CCAATGGGAG
GTGAAACTTA AGTTGGACAG CGATGGGCCT GCAAGTGGTA
9361 CCTGGAGAGT CGTAACAACC AATGTTACTA GTCACACCTG
CACTGTCGAT GTAAGTTCCT TCCCCTTGCA TCTTGTTTTT
9441 CTGTGTGTAA CCAATCAAAC TAAATTGAAC TTGTAGCATT
TATTCATAGA ACTATTATGA TCATTTAGTT GTCATTCCCA
9521 CCTAATTATG TTTGGAAGCT CATTGTGTTT TTAATGCTTT
TAGATCTACC GTGAGGTTGA AGATACAGAA TCACAGAAAC
9601 TAGTATACCA CTCTGCTCCA TCGTCATCTG GTCCTTTGCA
TGGCGTTGCA CTGAATACTC CATATCAGCC TTTGAGTGTT
9681 ATTGATCTGA AACGTTGCTC CGCTAGAAAC AACAGAACTA
CATACTGCTA TGATTTTCCG TTGGTGAGTA TCTCCCTCTC
9761 TATCTCTATA CATGTATGTA TTGTGTTAGC AGATTCTTAG
TGATATCATG TGTCCAAAAG CTGACAAGTA CTCAAAAATG
9841 TAGGCATTTG AACTGCAGT GCAGAAGTCA TGGTCTAACA
TTTCTAGTGA CAATAACCGA TGTTATGTTA AAGCAACGGA
9921 GCTGGTGTTT GCTCAAAGA ATGGGTCATG GGGCACTCCT
GTAATTCCTA TGGAGCGTCC TGCTGGGCTC AATGACATTG
10001 GTATGGTAGC TTGGATCTTG GACATGTCCA CTCCTGAATA
TCCCAATGGC AGGCAGATTG TTGTCATCGC AAATGATATT
10081 ACTTTTAGAG CTGGATCGTT TGGTCCAAGG GAAGATGCAT
TTTTTGAAAC TGTTACCAAC CTAGCTTGTT AGAGGAAGCT
10161 TCCTCTCATC TACTTGGCAG CAAACTCTGG TGCTCGGATC
GGCATAGCAG ATGAAGTAAA ATCGTGCTTC CGTGTTGGAT
10241 GGTCTGATGA TGGCAGCCCT GAACGTGGGT TTCAGTACAT
TTATCTGACT GAAGAAGACC ATGCTCGTAT TAGCACTTCT
10321 GTTATAGCGC ACAAGATGCA GCTTGATAAT GGTGAAATTA
GGTGGGTTAT TGATTCTGTT GTGGGGAAGG AGGATGGGCT
10401 AGGTGTGGAG AACATACATG GAAGTGCTGC TATTGCCAGT
GCCTATTCTA GGGCCTATGA GGAGACATTT ACGCTTACAT

FIGURE 19A CONTINUED

10481 TTGTGACTGG ACGGACTGTT GGAATAGGAG CATATCTTGC
TCGACTTGGC ATACGGTGCA TACAGCGTAC TGACCAGCCC
10561 ATTATCCTAA CCGGGTTCTC TGCTTTGAAC AAGCTTCTTG
GCCGGGAAGT GTACAGCTCC CACATGCAGT TGGGTGGCCC
10641 CAAAATTATG GCGACAAACG GTGTTGTCCA TCTGACAGTT
TCAGATGACC TTGAAGGTGT GTCTAATATA TTGAGGTGGC
10721 TCAGCTATGT TCCTGCCAAC ATTGGTGGAC CTCTTCCTAT
TACAAAATCT TTGGACCCAC CTGACAGACC CGTTGCATAT
10801 ATCCCTGAGA ATACATGTGA TCCTCGTGCA GCCATCAGTG
GCATTGATGA TAGCCAAGGG AAATGGTTGG GGGGCATGTT
10881 CGACAAAGAC AGTTTTGTGG AGACATTTGA AGGATGGGCG
AAGTCAGTAG TTA CTGGCAG AGCGAACTC GGAGGGATTC
10961 CGGTGGGTGT TATAGCTGTG GAGACACAGA CTATGATGCA
GCTCATCCCT GCTGATCCAG GCCAGCTTGA TTCCCATGAG
11041 CGGTCTGTTC CTCGTGCTGG GCAAGTCTGG TTTCCAGATT
CAGCTACTAA GACAGCTCAA GCAATGCTGG ACTTCAACCG
11121 TGAAGGATTA CCTCTGTTCA TCCTTGCTAA CTGGAGAGGC
TTCTCTGGTG GGCAAAGAGA TCTTTTTGAA GGAATCCTTC
11201 AGGCTGGGTC AACAAATTGTT GAGAACCTTA GGACATACAA
TCAGCCTGCC TTTGTATATA TCCCAAGGC TGCAGAGCTA
11281 CGTGGAGGGG CTTGGGTCGT GATTGATAGC AAGATAAATC
CAGATCGAAT TGAGTTCTAT GCTGAGAGGA CTGCAAAGGG
11361 TAATGTTCTT GAACCTCAAG GGTTGATTGA GATCAAGTTC
AGGTCAGAGG AACTCCAAGA GTGCATGGGC AGGCTTGACC
11441 CAGAATTGAT AAATCTGAAG GCAAACTCC TGGGAGCAAA
GCATGAAAAT GGAAGTCTAT CTGAGTCAGA ATCCCTTCAG
11521 AAGAGCATAG AAGCCCGGAA GAAACAGTTG TTGCCTTTGT
ATACTCAAAT TGCGGTGCGG TTTGCTGAAT TGCATGACAC
11601 TTCCCTTAGA ATGGCTGCTA AGGGTGTGAT TAAGAAGGTT
GTAGACTGGA AAGATTCTAG GTCTTTCTTC TACAAGAGAT
11681 TACGGAGGAG GATATCCGAG GACGTTCTTG CAAAGGAAAT
TAGAGGTGTA AGTGGCAAGC AGTTCTCTCA CCAATCAGCA
11761 ATCGAGCTGA TCCAGAAATG GTACTTGGCT TCTAAGGGAG
CTGAAGCAGC AAGCACTGAA TGGGATGATG ACGATGCTTT
11841 TGTTGCCTGG AGGGAAAACC CTGAAAATA CCAGGAGTAT
ATCAAAGAAC TTAGGGCTCA AAGGGTATCT CAGTTGCTCT
11921 CAGATGTTGC AGACTCCAGT CCAGATCTAG AAGCCTTGCC
ACAGGTCTT TCTATGCTAC TAGAGAAGGT GCGCATACTT
12001 ACTGTTTTAT TACTTGAAAG TAATTATTGT GGTGAGTGA
AATGTTGCCA TCTTATGTAT ATATAGTGTC TTAACAAATA
12081 ATGTTAATGC TTTTCTTTG GTCACCTGTT CAGATGGATC
CCTCAAGGAG AGCACAGTTT GTTGAGGAAG TCAAGAAAGT
12161 CCTTAAATGA

FIGURE 19B

Triticum aestivum plastidal ACCase NC057797.1 (SEQ ID NO: 962)

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1  MGSTHLPIVG FNASTTPSLS TIRPVNSAGA AFQPSAPSRT
SKKKSRRVQS LRDGGDGGVS DPNQSIRHGL AGIIDLPKEG
81  TSAPEVDISH GSEEPGRSYQ MNGILNEAHN GRHASLSKVV
EFCTALGGKT PIHSLVANN GMAAAKFMRS VRTWANETFG
161 SEKAIQLIAM ATPEDMRINA EHIRIADQFV EVPGGTNNNN
YANVQLIVEI AVRTGVSAVW PGWGHASENP ELPDALNANG
241 IVFLGPPSSS MNALGDKVGS ALIAQAAGVP TLPWSGSQVE
IPLEVCLDSI PAEMYRKACV STTEEALASC QMIGYPAMIK
321 ASWGGGGKGI RKVNNDDVDR ALFKQVQGEV PGSPIFIMRL
ASQSRHLEVQ LLCQYGNVA ALHSRDCSVQ RRHQKIIEEG
401 PVTVAPRETV KELEQAARRL AKAVGYVGAA TVEYLYSMET
GEYYFLELNP RLQVEHPVTE WIAEVNLPAA QVAVGMGIPL
481 WQVPEIRRFY GMDNGGGYDI WRTTAALATP FNFDEVDSQW
PKGHCVAVRI TSEDPDDGFK PTGGKVKEIS FKSKPNVWAY
561 FSVKSGGGIH EFADSQFGHV FAYGVSRAAA ITNMSLALKE
IQIRGEIHSN VDYTVDLLNA SDFKENRIHT GWLDNRIAMR
641 VQAERPPWYI SVVGALYKT ITSNTDTVSE YVSYLVKGQI
PPKHISLVHS TVSLNIEESK YTIETIRSGQ GSYRLRMNGS
721 VIEANVQTLG DGGLLMQLDG NSHVIYAEAE AGGTRLLIDG
KTCLLQNDHD PSRLLAETPC KLLRFLVADG AHVEADVPIA
801 EVEVMKMCMP LLSPAAGVIN VLLSEGQPMQ AGDLIARLDL
DDPSAVKRAE PFNGSFPEMS LPAAAGQVH KRCATSLNAA
881 RMLAGYDHP INKVVQDLVS CLDAPELPFL QWHEELMSVLA
TRLPRLLKSE LEGKYSEYKL NVGHGKSKDF PSKMLREIIE
961 ENLAHGSEKE IATNERLVEP LMSLLKSYEG GRESHAHFIV
KSLFEDYLSV EELFSDGIQS DVIERLRQQH SKDLQKVVDI
1041 VLSHQGVRNK TKLILTLMEK LVYPNPAAYK DQLTRFSSLN
HKRYYKLALK ASELLEQTKL SELRTSIARS LSELEMFTEE
1121 RTAISEIMGD LVTAPLPVED ALVSLFDCSD HTLQQRVIET
YISRLYQPHL VKDSIQLKYQ ESGVIALWEF AEAHSEKRLG
1201 AMVIVKSLES VSAAIGAALK DTSRYASSEG NIMHIALLGA
DNQMHGTEDS GDNDQAQVRI DKLSATLEQN TVTADLCDAG
1281 VKVISCIQVR DGALMPMRHT FLLSDEKLCY EEPVLRHVE
PPLSALLELG KLVKGYNEV KYTPSRDRQW NIYTLRNTEN
1361 PKMLHRVFFR TLVRQPGASN KFTSGHISDV EVGGAEESLS
FTSSSILRSL MTAIEELEH AIRTGHSHMF LCILKEQKLL
1441 DLVPVSGNKV VDIGQDEATA CSLKEMALQ IHELVGARMH
HLSVCQWEVK LKLDSDGPAS GTWRVVTTNV TSHTCTVDIY
1521 REVEDTESQK LUYHSAPSSS GPLHGVALNT PYQPLSVIDL
KRCSARNNRT TYCYDFPLAF ETAVQKSWSN ISSDNNRCYV
1601 KATELVFAQK NGSWGTPVIP MERPAGLNDI GMVAWILDMS
TPEYPNGRQI VVIANDITFR AGSFGPREDA FFETVTNLAC
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FIGURE 19B CONTINUED

1681 ERKLPLIYLA ANSGARIGIA DEVKSCFRVG WSDDGSPERG
FQYIYLTEED HARISTSVIA HKMQLDNGEI RWVIDSVVGK
1761 EDGLGVENIH GSAAIASAYS RAYEETF TLT FVTGRTVGIG
AYLARLGIRC IQRTDQPIIL TGFSALNKLL GREVYSSHMQ
1841 LGGPKIMATN GVVHLTVSDD LEGVSNILRW LSYVPANIGG
PLPITKSLDP PDRPVAYIPE NTCDPRAAIS GIDDSQGKWL
1921 GGMFDKDSFV ETFEGWAKSV VTGRAKLGGI PVGVIAVETQ
TMMQLIPADP GOLDSHERSV PRAGQVWFPD SATKTAQAML
2001 DFNREGLPLF ILANWRGFSG GQRDLFEGIL QAGSTIVENL
RTYNQPAFVY IPKAAELRGG AWVVIDSKIN PDRIEFYAER
2081 TAKGNVLEPQ GLIEIKFRSE ELQECMGRLD PELINLKAKL
LGAKHENGSL SESESLQKSI EARKKQLLPL YTQIAVRFAE
2161 LHDTSLRMAA KGVIKKVVDW KDSRSFFYKR LRRRISEDVL
AKEIRGVSGK QFSHQSAIEL IQKWYLASKG AEAASTEWD
2241 DDAFVAVREN PENYQEYIKE LRAQRVSQLL SDVADSSPDL
EALPQGLSML LEKMDPSRRA QFVEEVKKVL K

FIGURE 20A

cDNA sequence of *Setaria italica* plastidal ACCase NC028456.1
(SEQ ID NO: 963)

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1 ATGTCGCAAC TTGGATTAGC TGCAGCTGCC TCAAAGGCGC
TGCCACTACT TCCTAATCGC CATAGAACTT CAGCTGGAAC
81 TACATTCCCA TCACCTGTAT CATCGCGGCC CTCAAAACCGA
AGGAAAAGCC GCACTCGTTC ACTTCGTGAT GGAGGAGATG
161 GGGTATCAGA TGCCAAAAAG CACAACCAGT CTGTCCGTCA
AGGTACTGTG AGATTTTATT TTCCGATTCA AGTAAAATTT
241 TGCTTTGATC TATATATGAA AGAATTTTTT CTTGGCTGAT
GTTATTTAAC ATTGTAATGT TGAAACCTCA ATATGTATGA
321 CATAGAAAAGT GGTAGCTGTG GAACTTGTTT TGATAAAACA
GTATTGCAGC AAGCCTATAA TCTTTTCATT TTCTGGTAAT
401 TGAGAGTAAC TTTTAAATAT TCATATGATG TTCTCGTAAC
TGCATTTATA CACATATCTG TAAAAGAAAA AGTATTTTGC
481 AAGATAACAT ATGCAGTACA TCAAATTACA TATATCTGAA
CCTTTATTTT CCTTACGTAT TCATTCCTGT TGAAACAAAC
561 TTTTACATTT TTTTGTGAGT GAAATATGCA AAGAAAATTA
GATTGTAGTT GTTAGGTAGT AATGTAGATG TGCTCAGTTC
641 GAATGTTTGT CTGCATGTAG GTCTTGCTGG CATCATCGAC
CTCCCAAATG AGGCAACATC GGAAGTGGAT ATTTCTCAGT
721 AAGAACTTAA ACATTTTACA GTTGTATTAT GTGTTTATTT
TGGA AAAATA TTCTGCAGCT TATTGCTAGT TTCCTCAATG
801 CTACTTATCT TAATGTTGCT CTGTGGTGAA ATATTGTAGT
TTCGTACACC TCAGTGTATC ATAGTAAATG ATTCAAATA
881 TGGTGCTGTC TTGTTGCAGT TTGTACCACA GCCATAGACC
TGTTTCTGTA TCTGTTATTT GGGGCATAAT GAATACTACG
961 CTCACCTACA TGATGTGGTT ACAGCTTATT TCACAGAACT
ACTTCCAGTA TTGCTGGACA GCGGACACTT ATGAAATCAT
1041 ATCTGCATAC ATCTTTTTTCA GACTTTTGTT CTATGTAAAT
GCTTCACTTA ACTGGACGTA TATGATAGAT ACAAAGCCTA
1121 TTTGAACCTT GTTGATTTAT GACGACCATG CATATTGTAA
GTGTTCTGAA CACAGGAGTA ATCCTTTCCT TTGGTCCTTT
1201 TGCAGTGGAT CCGAGGATCC CAGGGGGCCA ACCGATTCAT
ATCAAATGAA TGGGATTGTA AATGAAGCAC ATAATGGCAG
1281 ACATGCCTCA GTGTCCAAGG TTGTTGAATT TTGTGCGGCG
CTAGGTGGCA AAACACCAAT TCACAGTATA CTAGTGGCCA
1361 ACAATGGAAT GGCAGCAGCA AAGTTCATGA GGAGTGTCGG
GACATGGGCT AATGATACTT TTGGATCGGA GAAGGCGATT
1441 CAGCTCATAG CTATGGCAAC TCCAGAAGAC ATGAGGATAA
ATGCAGAAC AATTAGAATT GCTGATCAAT TTGTAGAGGT
1521 GCCTGGTGGA ACAAACAATA ACAACTATGC AAATGTTCAA
CTCATAGTGG AGGTTAGCCC TGCTAATCAT TTGGTTTACT
1601 ACTGTTCTGC TATTTCTTTT CTTTCTGGT AACCATTGGC
ATATTTAAGT AGAGAAATTC GTATTTCTCC AGCTCAGCTA
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FIGURE 20A CONTINUED

1681 CTTTCGGAAGT CTAATTGTTA CCATTAAAAC TATGGATGGA
CTTTTGATAT TGTAGGTAGC AGAAAGAATA GGTGTTTCTG
1761 CTGTTTGGCC TGGTTGGGGT CATGCTTCTG AGAATCCTGA
ACTTCCAGAT GCATTGACCG CAAAAGGAAT TGTTTTCTT
1841 GGGCCACCTG CGGCATCAAT GAATGCATTG GGAGATAAGG
TCGGTTCAGC TCTCATTGCT CAAGCAGCTG GGGTCCCGAC
1921 CCTTTCGTGG AGTGGATCAC ATGTGAGTCT CACTCTCTCT
TTGACAACTA TCTTCTGATC TCACCTCTAT TCATTTTCAT
2001 ATAATAATTA CACTACATTT AGGTTGAAGT TCCATTAGAG
TGCTGCTTAG ATGCGATACC TGAGGAAATG TATAGAAAAG
2081 CTTGTGTTAC TACCACAGAA GAAGCTGTTG CGAGTTGTCA
GGTGGTTGGT TATCCTGCCA TGATTAAGGC ATCCTGGGGA
2161 GGTGGTGGTA AAGGAATAAG AAAGGTTCTG TATTTTATGT
GGTAACCATC TATGGAGATT GTGCACACTG GAGTTGAGCG
2241 TGGAGAGCTA ACCACCTACT TGTCATGATT AACTTAATCT
CCCTGGTAGG TTCATAATGA CGATGAGGTT AGAGCACTGT
2321 TTAAGCAAGT ACAAGGTGAA GTCCCTGGCT CCCC AATATT
TATCATGAGG CTTGCATCCC AGGTTAGTTT TTATTCTGGA
2401 AGTTATATTC CACCCCTTTT TGTTGTCGAG TTATTGATGT
ATGTTCTGGA AGCTTCATCT GATACATTAT TGAATAATGA
2481 ACCAATGGCC ATCATTTATG GAGACCAACA TATATATGAA
AAGTTAATTA ATGGGCATTG TTGAAAGAGA CAACAGCTGA
2561 GTGGATACCA TACTGTTTTT AGGATCTAGA AATCATTGTG
TTCTGGATGA GACACTGCAC TTGCTGGAGT TGGACTAAGC
2641 TTTTCTTAGT TTTGAATAAC ATGTTGTACA TGAACCATTT
ATGTCAATTT ACAGTCAGTA TCATGGAAAG GTTGGGATAA
2721 TGGCTGGAGA GACGCAACAC ATCTTGTTTC CCAACACTTT
GTGGGGAAGA TGTTGACCCT TTTTCTGAAA CTATCTTTTG
2801 GACTACCTTG TACTTGTG TTAGGTTTTA AAGATCCTTA
CTTTATATTT GATTCTAAAT CTTGTTGTCT ATTGTAGAGT
2881 CGTCATCTTG AAGTTCAGTT GCTTTGTGAT CAATATGGCA
ATGTGGCAGC ACTTCACAGT CGTGATTGCA GTGTGCAACG
2961 GCGACACCAA AAGGTTTGCC CCCCACCCAC ACCTACCCAC
ACACACAATT ATAGAACCAT GCATTTTGTT CTGCATTCTA
3041 TTTCTCACTT GTAGTTCCGT TCATATTTTT TTATAACAGA
TTATTGAGGA AGGCCAGTT ACTGTTGCTC CTCGTGAGAC
3121 AGTTAAAGCG CTTGAGCAGG CAGCAAGGAG GCTTGCTAAG
GCTGTGGGTT ATGTTGGTGC TGCTACTGTT GAATACCTTT
3201 ACAGCATGGA GACTGGGGAA TACTATTTTC TGGAGCTTAA
TCCCAGATTA CAGGTTTGCT CCCTTTAACA TCATTATTGA
3281 TTAATTAACC TGCTGGGAAT CCTTTACAAT GCTGAATGAT
ATACGTTTCA GTCGAGCATC CAGTCACTGA GTGGATTGCT
3361 GAAGTAAATC TTCCTGCAGC TCAAGTTGCA GTTGGAATGG
GCATACCTCT TTGGCAGATT CCAGGTAATT ACCAATTTAC

FIGURE 20A CONTINUED

3441 CAACTTATTT AGTTCCTTAT TATTTTAATC TCTAAATTGT
ACCCTTATGA TAGAAATCAG ACGTTTCTAT GGAATGGACT
3521 ATGGAGGAGG ATATGACATT TGGAGGAAAA CAGCAGCTCT
TGCCACACCA TTAAATTTTG ATGAAGTAGA TTCTCAATGG
3601 CCAAAGGGCC ATTGTGTAGC AGTTAGAATT ACTAGCGAGG
ATCCAGATGA TGGTTTCAAA CCTACTGGTG GGAAAGTGAA
3681 GGTGAGGTTT TGTAATGCCA GATATATTGG TCAAATAGAT
CAAGTTTGGT TAAATGACCA GGTCCTGATT TTTTTTCAGG
3761 AGATAAGTTT TAAAAGCAAG CCTAATGTTT GGGCCTACTT
CTCAGTAAAG GTAATTTGTT TGCCATGTTA ATCTTGCACA
3841 TAATTTTGTA TTGTGCAGAT AATTGGATG GTACTGTTTG
TTAACCATT C ATCGTTTCAT TTAGTTAAAC AAACAATTTG
3921 CACTCTGATC CCCATTTAAT CTGTTTTTCAG TCTGGTGGAG
GCATTCATGA ATTTGCTGAT TCTCAGTTTG GTATGTGCAA
4001 AGCTAGCGGA TATTCTTTGT AAATTTGTTT TGGACTTTTG
GTCCCTCATTG TCAAATGATT GCTTGTTC A TTACAGGGCA
4081 TGTTTTTGCA TATGGGCTCT CTAGATCAGC AGCAATAACG
AACATGGCTC TTGCATTAAA AGAGATTCAA ATTCGTGGAG
4161 AAATTCATT C AAATGTTGAT TACACAGTTG ATCTCTTAAA
TGTGAGAAAC ATTAAGCACC TTTTAAGCCT CCTTTTCTTT
4241 TTGTTGGTTT TATACTATCA TTGTTTTTGT TTTTCCATTA
CGCCTAAACC TGTGGTGCTA TTTCCCTATA TTAATCCAGG
4321 CTTCAGACTT CAGAGAAAAT AAGATTCATA CTGGCTGGCT
TGATAACCAGA ATAGCTATGC GTGTTCAAGC TGAGAGGCCC
4401 CCATGGTATA TTTCAGTGGT TGGAGGAGCT CTATATGTAA
GATGAAGAAA CAACACCACT CTGCTAGCAC TTTTCTCTAA
4481 TTTAAATCGT GAAAAACATA CCAATGTATG GTCTAATTTA
AATCATTGTT ACATCTTACA GAAAACAGTA ACTGCCAATG
4561 CAGCCACTGT TTCTGATTAT GTCAGTTATC TCACCAAGGG
CCAGATTCCA CCAAAGGTAT GTTTTTGTGG GATACAATGG
4641 ATATTTTTTG AGGTGAAGAA TGGTTGACCA ATAATTCTTA
TATGCAGCAT ATATCCCTTG TCAGTTCAAC AGTTAATCTG
4721 AATATCGAAG GGAGCAAATA CACAGTAAGT GTGATATTCC
ATAAGAAAAT CTATTTTAGC TACAATAAAG TTAGACATTC
4801 TGAGTTTTGT CCGCATTGTG TTGTAGGTTG AAAGTGTAA
GACTGGACAT GGTAGCTACA GATTACGAAT GAATGATTCA
4881 GCAATTGAAG CGAATGTACA ATCTTTATGT GATGGAGGCC
TCTTAATGCA GGTAACCTGT TCCTTCTTTT ATGCTTTATT
4961 AATAACTCTG ATAAATGGTT TCAAAGTTAG TGGCGGTTCT
GATTGTTGAA CTGTAATGGC TTCAGTTGGA TGGAAATAGC
5041 CATGTAATTT ACGCGGAAGA AGAAGCTGGT GGTACACGAC
TTCTGATTGA TGGAAAGACA TGCTTGTTAC AGGTGCACAC
5121 TCTTTTTTCCC TATATATTCT TGGTGTCTGA TTGGGAAACT
TCTGCCAGAT TTGTCTGTAT CTTTCATTAC TGCATTTGGT

FIGURE 20A CONTINUED

5201 TCTTATTGTT TGCTTTCTAC AGGAGACATC ACATAAGAAA
TTTGTGACTA ATCCTTGTGA ATTTAAAACA CTTGATTCTG
5281 TTGGAATTTA ACTACAACAC CTGACTTAAA AATCACTGTA
ATCAGGGGTG ATTGAAAATC GAGAAGAGAC CTTTTTAAGA
5361 TTGTAAGATT TTGGCCATAC TACACTATGC CCCAAGTAGC
TGATGACTTT GCGTTTTTGC AGAATGATCA TGATCCATCA
5441 AAGTTATTAG CTGAGACACC CTGCAAACTT CTTCCGGTTCT
TGGTTGCTGA TGGTGCTCAT GTTGATGCTG ATGTACCATA
5521 TGCGBAAGTT GAGGTTATGA AAATGTGCAT GCCTCTCTTG
TCGCCTGCTT CTGGTGTCAT TCATGTTATG ATGTCTGAGG
5601 GCCAGGCATT GCAGGTTATA TTCGTACATC TGCCCTCCTT
GCATTGTGCT TGCATCACAT AATCATTACA TGTAACATTT
5681 CTGAACTTAT ATTCTGTTCT AGGCTGGTGA TCTTATAGCA
AGGCTGGATC TTGATGACCC TTCTGCTGTG AAAAGAGCTG
5761 AACCATTTCA TGGAATATTT CCACAAATGG ACCTTCCTGT
TGCTGCCTCT AGCCAAGTAC ACAAAGATA TGATGCAAGT
5841 TTGAATGCTG CTCGAATGGT CCTTGCAGGA TACGAGCATA
ATATCAATGA AGTAAATATT CCATCTTATT GTGATAATCT
5921 TCCATTTCTT TTCCTTTTTT TATCATGTGT TTCTTTATAG
TATGTTTTGT GCACTCCCTC CATCCCAAAA AGAGTGTTAT
6001 TCTAGGTTTG TCCTTGTCAC ACTATCTTAA GTTTGACCAA
GATTATATTA AAAAGTACC AATATTTATG AGACCAAATA
6081 AGTATAATTA GGTTCATCAT GAAATATGCT TTTGGGACAG
AGAGAGTTAG CTTTTATGAG TTAAGGGCTA GCCAGTCTTC
6161 CATTTTTTGG TTCTGCTTAC TTTTGTTCCA AAATTTGTAT
AATCTATGGA AAATTCTAAT GGTCAGTATA TGCTAATCAT
6241 GCTCATGTTA GTTCAACTGC AAATTTATCT GCTACGTAAA
TAATTTTCTT TCTTTAAGCA GTTCTATCTT CTAGTTTCAT
6321 AATTTTCAGA CACATTTCTT TAATTGAAGT TATTGTATTT
CGGTGTCTAT CTCATGAAGT CCTTAGCATT TACTTATCAC
6401 ATATTGATTG ATTCATTTTA AACTCTGCTT CTTTTCAGGT
TGTACAAGAT TTGGTATGCT GCCTGGATGA TCCCGAGCTT
6481 CCCTTCCTAC AGTGGGATGA ACTTATGTCA GTTCTAGCAA
CTAGGCTTCC AAGAAATCTT AAGAGTGAGG TATGAAACAA
6561 TTGGCAAGAT ATAGCCAATC TGGCTTAAAG GAAAGATGAT
TCATTTTACT AGATAATCTT AATTTTGTAC ATATTGGTTT
6641 ATGTTGATGA CAGGAAAATG TGGTGTCAAC AGAGTAAAC
TATGATATTT TGTAACACTA GTTGCACCTG TGTTGTGTGC
6721 ATTAACTCT GTAGCTTGCC GTAGTTTATC ATGCAGTTAG
AGGATAGAAT TGTATTCATG TGCAAAAATT CAAAATATTT
6801 CACTTTAGCA TTTCAACCAGA TAGAAGCTGA ATTTTCAGTA
AGTTTTGTTT TGATTTCTGG GTTGCAGTTC TTCTGATATT
6881 TCCTTACATA ACCCTATTTT ATTCTATCTC TGATATTTCT
ATCTTTTATT ATGCAGTTAG AGGATAAATA CATGGAATAC

FIGURE 20A CONTINUED

6961 AAGTTGAACT TTTACCATGG GAAAAACAAG GACTTCCCGT
CCAAGCTGCT GAGAGACATC ATTGAGGTCA GTTTTAGGTT
7041 TCTTTTGTGG CATTGCTTTT TAAACTGTTT GCCCACTTTA
ACTCTTTTTT TTTTAGGCAA ATCTTGATA TGGTTCAGAG
7121 AAGGAAAAAG CTACGAATGA GAGGCTTATT GAGCCTCTTA
TGAGCCTACT TAAGTCATAT GAGGGTGGGA GAGAAAGCCA
7201 TGCTCATTTT GTTGTCAAGT CCCTTTTCAA GGAGTACCTT
GCTGTGGAAG AACTTTTTCAG TGATGGGATT CAGGTTATCT
7281 TACATATCCA AACTGAACAT ATCAGCACTA AGAAAAGCAC
AAAAATGTTT GCTCCTTTCC ATTCTCCTAG TTAGGAGCAC
7361 ATTTTAACAA ATGGCGTGCA TATTGAGCTG AAAACATTTG
CATGGCTTCA GATTCAATTT ACTGGATACA ATCTGACTTA
7441 TTATTATTTT TTAATTATGC CTTTACAGTC TGATGTGATT
GAAACCCTGC GTCATCAGCA CAGTAAAGAC TTGCAGAAGG
7521 TTGTAGACAT TGTGTTGTCT CACCAGGTAA TTTCTTGATG
GTCTGATAAC TGTGCTTATG AACTGAAAC AATCTTTGTT
7601 ATTGATAGCG TGATTTTGTG CATAGGGTGT GAGGAACAAA
GCTAAGCTTG TAACAGCACT TATGGAAAAG CTGGTTTATC
7681 CAAATCCTGC TGCTTACAGG GATCTGTTGG TTCGCTTTTC
TTCATCAAT CATAAAAAGAT ATTATAAGGT GCAGGAACCT
7761 GAAATAACCT AGATATTCCT GCTATTATTT TCTTTGATTT
TTATTCTAAC TAATTCTATG CATCTTGATA AACACAGTTG
7841 GCCCTTAAAG CAAGCGAACT TCTTGAACAA ACTAAACTAA
GTGAAGTCCG TGCAAGCATC GCAAGAAGCC TTTCTGATCT
7921 GGGGATGCAT AAGGGAGAAA TGACTATTGA AGATAGCATG
GAAGATTTAG TCTCTGCCCC ATTACCTGTC GAAGATGCAC
8001 TTATTTCTTT GTTTGATTAC AGTGATCCAA CTGTTTCAGCA
GAAAGTGATC GAGACATACA TATCTCGATT GTATCAGGTA
8081 TTATATCAAC TAACTTGATA TCTTTCATAG TCCCACTGAG
CACATCTGGT ATGATCATCT TTTTCATATA TATATATAAC
8161 ACACACACAC ACAAAGAAGT GTCCTAATGA CATGATATGA
TCATCTTTTC ATTTACACAAA GAGAAATATT GAGAAACGGG
8241 ATACTGATGA TTGGCTAAAA TTAATTGGGT GTGAAAGTTG
TGATCTTCCA ACTTGACTA TATGTATAGT AAAACATGTT
8321 GGCTAACCTG CCAATAATAT TTTTTCAGCC TCTTCTTGTTG
AAAGATAGCA TCCAAGTGAA ATTTAAGGAA TCTGGTGCCT
8401 TTGCTTTATG GGAATTTTCT GAAGGGCATG TTGATACTAA
AAATGGACAA GGGACCGTTC TTGGTCGAAC AAGATGGGGT
8481 GCCATGGTAG CTGTCAAATC AGTTGAATCT GCACGAACAG
CCATTGTAGC TGCATTAAAG GATTCGGCAC AGCATGCCAG
8561 CTCTGAGGGC AACATGATGC ACATTGCCTT ATTGAGTGCT
GAAAATGAAA ATAATATCAG GTCTGCTCAT GTGCAATATC
8641 AGGTCCAATG GAATTTTTGT CTGTGATCTG TGTAACCTCTG
TGTAACCTAG TCCATTTCTT TCAGCAGTGA TGATCAAGCT

FIGURE 20A CONTINUED

8721 CAACATAGGA TGGAAAACT TAACAAGATA CTCAAGGATA
CTAGTGTGCG AAATGATCTT CGAGCTGCTG GTTTGAAGGT
8801 TATAAGTTGC ATTGTTCAAA GAGATGAAGC ACGCATGCCA
ATGCGCCACA CATTACTCTG GTCAGATGAA AAGAGTTGTT
8881 ATGAGGAAGA GCAGATTCTT CGGCATGTGG AGCCTCCCCT
CTCCATGCTT CTTGAAATGG TCTGTTTATA AAATTACCGC
8961 ATGTTGTTTT GCTACATTCT GTTCTTATAG TTTGCTTATT
TTCTTCACTA TTTATAAATC ATGTTACCTA TTATGAATAC
9041 AGGATAAGTT GAAAGTGAAA GGATACAATG AAATGAAGTA
TACTCCATCA CGTGATCGTC AATGGCATAT CTACACACTA
9121 AGAAATACTG AAAACCCCAA AATGTTGCAT AGGGTATTTT
TCCGA ACTAT TGTCAGGCAA CCCAATGCAG GCAACAAGTT
9201 TATATCAGCC CAAATTGGCG AACTGAAGT AGGAGGTCCT
GAGGAATCTT TGTCATTTAC ATCTAATAGC ATTTTAAGAG
9281 CCTTGATGAC TGCTATTGAA GAATTAGAGC TTCATGCAAT
TAGGACTGGT CATTCTCACA TGTATTTGTG CATATTGAAA
9361 GAACAAAAGC TTCTTGATCT CATTCCGTTT TCAGGGTAAG
TGTGCACATA ATCATTTTTG GGAAACATTA TGGCTTGCCT
9441 ATTTGGTTGG CATCCTCAAC AATGCTTTTC GTTTTAATCA
GGAGCACAAT CGTCGATGTT GGCCAAGACG AAGCTACTGC
9521 TTGTTCACTT TAAAATCAA TGGCTTTGAA GATACACGAA
CTTGTTGGTG CACAGATGCA TCATCTTTCT GTATGCCAGT
9601 GGGAGGTGAA ACTCAAGTTG TACTGCGATG GGCCTGCCAG
TGGCACCTGG AGAGTTGTAA CTACAAATGT TACTAGTCAC
9681 ACTTGACCG TTGATGTAAG TTGTCCCTAC TGGTTTCTTA
TTTTGTATTG CACACATTAA AATATACGTC AACAGGTGGT
9761 TGTTTTATAT TACGAATAT TGTCCCATTT AATTATGTTC
TGAAGCACAT AGCATTTCTA ATGGTTTTAG ATCTACCGGG
9841 AAGTGGAAGA TACTGAATCG CAGAAGTTAG TATACCATTC
AGCTTCTCCG TCAGCTAGTC CTTTGCATGG TGTGGCCCTG
9921 GATAATCCGT ATCAACCTTT GAGTGTCAAT GATCTAAAAC
GCTGCTCTGC TAGGAACAAC AGAACTACAT ATTGCTATGA
10001 TTTTCCACTG GTGAGTTCAC CTCTCTTTTG TACCTATTTG
CATTATCGGT ATTTTGAATT TGAACCTAAA CTGATAATGG
10081 CTAAAAATTT GTAGGCATTT GAACTGCCC TGCAGAAGTC
ATGGCAGTCC AATGGCTCCA GTGTTTCTGA AGGCAGTGAA
10161 AATAGTAGGT CTTATGTGAA AGCAACAGAG CTGGTGTTTG
CTGAAAAACA TGGGTCCTGG GGCACCTCTA TAATTTCCAT
10241 GGAGCGTCCC GCTGGGCTCA ATGACATTGG CATGGTAGCT
TGGATCTTAG AGATGTCCAC TCCTGAATTT CCCAATGGCA
10321 GGCAGATTAT TGTCATAGCA AATGATATTA CTTTCAGAGC
TGGATCATTT GGCCCAAGGG AAGATGCGTT TTTTGAAGCT
10401 GTCACGAACC TGGCCTGCGA GAGGAAGCTT CCTCTTATAT
ACTTGGCAGC AAATCCGGT GCTAGGATTG GCATAGCCGA

FIGURE 20A CONTINUED

10481 TGAAGTGAAA TCTTGCTTCC GTGTTGGGTG GTCCGATGAA
GGCAGCCCTG AACGGGGTTT TCAGTACATT TATCTGACTG
10561 ACGAAGACTA TGCCCGTATT AGCTTGTCTG TTATAGCACA
CAAGCTGCAG CTGGATAATG GTGAAATTAG GTGGATTATT
10641 GACTCTGTTG TGGGCAAGGA GGATGGGCTT GGTGTTGAGA
ATATACATGG AAGTGCTGCT ATTGCCAGTG CTTATTCTAG
10721 GGCATATGAG GAGACATTTA CACTTACATT TGTGACTGGG
CGGACTGTTG GAATAGGAGC ATATCTTGCT CGGCTCGGTA
10801 TACGGTG CAT ACAGCGTCTT GACCAGCCTA TTATTTTAAC
TGGGTTTTCT GCCCTGAACA AGCTTCTTGG GCGGGAAGTG
10881 TACAGCTCCC ACATGCAGTT GGGTGGTCCT AAGATCATGG
CGACCAATGG TGTTGTCCAC TTGACTGTTT CAGATGACCT
10961 TGAAGGTGTT TCCAATATAT TGAGGTGGCT CAGCTATGTT
CCTGCCAACA TTGGTGGACC TCTTCCTATT ACAAACCTT
11041 TGGACCCACC AGACAGACCT GTTGCATACA TCCCTGAGAA
CACATGTGAT CCGCGCGCAG CCATTCGTGG TG TAGATGAC
11121 AGCCAAGGGA AATGGTTGGG TGGTATGTTT GACAAAGACA
GCTTTGTGCA GACATTTGAA GGATGGGCGA AAACAGTGGT
11201 TACGGGCAGA GCAAAGCTTG GAGGAATTCC TGTTGGTGTC
ATAGCTGTGG AGACACAAAC CATGATGCAG CTTATCCCTG
11281 CTGATCCAGG CCAGCTTGAT TCCCATGAGC GATCTGTTCC
TCGGGCTGGA CAAGTGTGGT TCCCAGATTC TGCAACCAAG
11361 ACAGCTCAGG CATTGTTGGA CTTCAACCGT GAAGGATTGC
CGCTGTTTAT CTTTGCTAAC TGGAGAGGAT TCTCTGGTGG
11441 ACAAAGAGAT CTGTTTGAAG GAATTCTTCA GGCTGGGTCA
ACAATTGTTG AGAACCTTAG GACATACAAT CAGCCTGCTT
11521 TTGTCTACAT TCCTATGGCT GGAGAGCTGC GTGGAGGAGC
TTGGGTTGTG GTTGATAGCA AAATAAATCC AGACCGAATT
11601 GAGTGTATG CTGAGAGGAC TGCTAAAGGC AATGTTCTGG
AACCTCAAGG GTTAATTGAA ATCAAATTCA GATCAGAGGA
11681 GCTCCAAGAC TGTATGGGTA GGCTTGACCC AGAGTTGATA
AATCTGAAAG CAAACTCCA AGGTGCAAAG CTTGGAAATG
11761 GAAGCCTAAC AGATGTAGAA TCCCTTCAGA AGAGTATAGA
TGCTCGTACG AAACAGTTGT TGCCTTTATA CACCCAGATT
11841 GCAATACGGT TTGCTGAATT GCATGATACT TCCCTCAGAA
TGGCAGCTAA AGGTGTGATT AAGAAAGTTG TAGATTGGGA
11921 AGAATCACGT TCTTTCTTCT ACAGAAGGCT ACGGAGGAGG
ATCTCTGAAG ATGTTCTTGC AAAAGAAATA AGAGGAATAG
12001 CTGGTGACCA CTTCACTCAC CAATCAGCAG TTGAGCTGAT
CAAGGAATGG TACTTGCTT CTCAAGCCAC AACAGGAAGC
12081 ACTGAATGGG ATGATGATGA TGCTTTTGTT GCCTGGAAGG
AGAATCCTGA AAACATAAAG GGATATATCC AAGAGTTAAG
12161 GGCTCAAAAG GTGTCTCAGT CGCTCTCCGA TCTTGCAGAC
TCCAGTTTCA ATCTAGAAGC ATTCTCACAG GGTCTTTCCA

FIGURE 20A CONTINUED

12241 CATTATTAGA TAAGGTAAGC TTGCTATCTG CTGGTTTTAC
CAATTAGTAT TTGTATTTAA CTTGGGTTCC AACTGGTGCT
12321 TTTTGTCTGC ATCTCACTTC TTTAGAGTGA AAGGCCTAAA
GCCTCACAGG TAACCTAGGA ACTCACACAC AGAACACACA
12401 CCTACACAGT AGTCTTTTGG TGCTGCAATT GCTTTCTGCC
TTTTCTGTTT TCTTCTCTAT TTATACATAG CCAAGAGCTA
12481 CAATAGGGCC TGTAATTGAA AGCTAATAGC TACAGCCATC
ACTCCCTTGA TTCGCTTATT ATTCTCACTA ACTAGCAGCT
12561 GGAAATCTGC TAAGTAAATA GGCTCTGCAC CTAGACACTC
TGAACCTGGA CAAGCTCTGC ACCTGGACAG CACGCACAGG
12641 ATTACTCCTA ACACAGAGTT CCTATTCCGT TTGCATGGTG
CTAGACACTG CATCTTGCCA AATCATGGTT CTAATACCTA
12721 CAGCTTTTTT TTTTGTGTAA CCGTCTTACA TGTTCCTTTG
GATGCTTGTT CAGATGGATC CCTCTCAGAG AGCCAAGTTC
12801 ATTCAGGAAG TCAAGAAGGT CCTGGGTTGA

FIGURE 20B

Setaria italica plastidal ACCase NC028456.1 (SEQ ID NO: 964)

1 MSQLGLAAAA SKALPLLPNR HRTSAGTTFP SPVSSRPSNR
RKSRTSLRD GGDGVSDAKK HNQSVRQGLA GIIDL PNEAT
81 SEVDISHGSE DPRGPTDSYQ MNGIVNEAHN GRHASVSKVV
EFCAALGGKT PIHSILVANN GMAAAKFMRS VRTWANDTFG
161 SEKAIQLIAM ATPEDMRINA EHIRIADQFV EVPGGTNNNN
YANVQLIVEV AERIGVSAVW PGWGHASENP ELPDAL TAKG
241 IVFLGPPAAS MNALGDKVGS ALIAQAAGVP TLSWSGSHVE
VPLECCLDAI PEEMYRKACV TTTEEAVASC QVVGYPAMIK
321 ASWGGGGKGI RKVHNDDEV R ALFKQVQGEV PGSPIFIMRL
ASQSRHLEVQ LLC DQYGNVA ALHSRDCSVQ RRHQKIIEEG
401 PVTVAPRETV KALEQAARRL AKAVGYVGAA TVEYLYSMET
GEYYFLELNP RLQVEHPVTE WIAEVNLPAA QVAVGMGIPL
481 WQIPEIRRFY GMDYGGGYDI WRKTAALATP FNFDEVDSQW
PKGHCVAVRI TSEDPDDGFK PTGGKVKEIS FKSKPNVWAY
561 FSVKSGGGIH EFADSQFGHV FAYGLSRSAA ITNMALALKE
IQIRGEIHSN VDYTVDLLNA SDFRENKIHT GWLDTRIAMR
641 VQAERPPWYI SVVGALYKT VTANAATVSD YVSYLTGQI
PPKHISLVSS TVNLNIEGSK YTVETVRTGH GSYRLRMNDS
721 AIEANVQSLC DGGLLMQLDG NSHVIYAE E AGGTRLLIDG
KTCLLQNDHD PSKLLAETPC KLLRFLVADG AHVDADV PYA
801 EVEVMKMCMP LLSPASGVH VMMSEGQALQ AGDLIARLDL
DDPSAVKRAE PFHGIFPQMD LPVAASSQVH KRYDASLNAA
881 RMLAGYEHN INEVVQDLVC CLDDPELPFL QWDELMSVLA
TRLPRNLKSE LEDKYMEYKL NFYHGKNKDF PSKLLRDIIE
961 ANLAYGSEKE KATNERLIEP LMSLLKSYEG GRESHAHFV
KSLFKEYLAV EELFSDGIQS DVIETLRHQH SKDLQKVVDI
1041 VLSHQGVRNK AKLVTALMEK LVYPNPAAYR DLLVRFSSLN
HKRYYKLALK ASELLEQTKL SELRASIARS LSDLGMHKGE
1121 MTIEDSMEDL VSAPLPVEDA LISLFDYSDP TVQQKVIETY
ISRLYQPLLK KDSIQVKFKE SGAFALWEFS EGHVDTKNGQ
1201 GTVLGRTRWG AMVAVKSVE S ARTAIVAALK DSAQHASSE
NMMHIALLSA ENENNISSDD QAQHRMEKLN KILKDTSVAN
1281 DLRAAGLKVI SCIVQRDEAR MPMRHTLLWS DEKSCYEEEQ
ILRHVEPPLS MLEMDKLV KGYNEMKYTP SRDRQWHIYT
1361 LRNTENPKML HRVFFRTIVR QPNAGNKFIS AQIGDTEVGG
PEESLSFTSN SILRALMTAI EELELHAIRT GHSHMYLCIL
1441 KEQKLLDLIP FSGSTIVDVG QDEATACSL KSMALKIHEL
VGAQMHHSV CQWEVKLKLY CDGPASGTWR VVTNVTST
1521 CTVDIYREVE DTESQKLVYH SASPSASPLH GVALDNPYQP
LSVIDLKRC S ARNNRTTYCY DFPLAFETAL QKSWQSNSS
1601 VSEGENSRS YVKATELVFA EKHGSWGTPI ISMERPAGLN
DIGMVAWILE MSTPEFPNGR QIIVIANDIT FRAGSFGPRE
1681 DAFPEAVTNL ACERKLPLIY LAANS GARIG IADEVKSCFR
VGWSDEGSPE RGFQYIYLT D EDYARISLSV IAHKLQLDNG

FIGURE 20B CONTINUED

1761 EIRWIIDSVV GKEDGLGVEN IHGSAAIASA YSRAYEETFT
LTFVTGRTVG IGAYLARLGI RCIQRLDQPI ILTGFSALNK
1841 LLGREVYSSH MQLGGPKIMA TNGVVHLTVS DDLEGVSNIL
RWLSYVPANI GGPLPITKPL DPPDRPVAYI PENTCDPRAA
1921 IRGVDDSQK WLGGMFDKDS FVETFEQWAK TVVTGRAKLG
GIPVGVIAVE TQTMQLIPA DPGQLDSHER SVPRAGQVWF
2001 PDSATKTAQA LLDFNREGLP LFI LANWRGF SGGQRDLFEG
ILQAGSTIVE NLR TYNQPAF VYIPMAGELR GGAWVVVDSK
2081 INPDRIECYA ERTAKGNVLE PQGLIEIKFR SEELQDCMGR
LDPELINLKA KLQGA KLNG SLTDVESLQK SIDARTKQLL
2161 PLYTQIAIRF AELHDTSLRM AAKGVIKKVV DWEESRSFFY
RRLRRRISED VLAKEIRGIA GDHFTHQSAV ELIKEWYLAS
2241 QATTGSTWD DDAFVAWKE NPENYKGYIQ ELRAQKVSQS
LSDLADSSSD LEAFSQGLST LLDKMDPSQR AKFIQEVKKV
2321 LG

FIGURE 21A

cDNA sequence of *Lolium perenne* plastidal ACCase NC067245.1
(SEQ ID NO: 965)

```
1 ATGGGATCCA CGCATTTGCC CATCGTTGGG CTTAATGCCT
CCACAACGCC GTCGCTGTCC ACTCTCCGCC AGATCAATTC
81 AGCTGGTTCC ACATTCCAAT CTCCTTCCCC TTCAAGGTCG
TCCAAGAAGA AAAGCCGCCG TGTTAAGTCA ATAAGGGACG
161 ATGGCGATGG AAGCGTGTCA GACCCTGCAG GGCATAACAA
GTCTATTTCG CAAGGTAACC CCAGGACCAT CTCCTTTCTA
241 TTTTGTTTTT AACCTCAGAC TTGCATAGAT GATGAAAGTT
TTCTTGACTC AGAGCATGCT GATTTTAGTG TAAGATAGCT
321 CAATATTACT ATTACGAAAT GATACTAGTT AAGATACAAA
TCAATGTAGC AATCTTCACA TATTGTTTCA ATGGTTTTGC
401 TAAATCTTAG TCGCATGGGA TTTCTTTTGC TCACACTGAG
CTGTCTGAGA ATTCACGCAG GGATCTAGGA TATCAAGATT
481 AGATCAGATG GCTAGCACCA TTGATTTAGA CATAATAAAA
TCTCTGTCAA CTTAGGTGTA AGATTGACTC TATTTTATTT
561 GATCTATGTA CTAGTATTTT TTGTTTGTTT GTAACACTAT
GCATATTTTT TCCTGATTAA TTGTTTTTCGG TGAACGGAAT
641 GTTTAATATT CAATATGATG TTTTCTTAAT GAAAGGGAAA
CAACAATACA TGTATATCGC AGTTTAAAGTG CGAATGACTG
721 AATGTTTTTC ATATATTTAT TAATAGTTCT AGAGAAAGAA
GGATGTCGCA AAATATTTTC TTATAACTTT GGTCGGAAGA
801 ATAACAATAA CATTCCAAAA GTTGGCAAAC CATTGCTTGT
TCTAAGCTAT TGTGTAGGCT TGCTCAGTTT CCAATGCATA
881 TCTGGATGTA GGTCTCGCTG GCATCATCGA CCTCCCAAAG
GAAGGCACAT CAGTTCCCGA AGTGGACATT TCACAGTATG
961 TACTTCAGCA CAGTTAAATA TAGTTAGTTC TCTTCAAAGA
ACAGGGAAAA ATGTATAGCT CATCTACAGT TCAATATATT
1041 TAACCTGTTT TATTATCTTT ACGCTTAAAT GTTGAAGTTG
TAAATTCCTT ATTCTCATAG ATTGACACTT CAATACATCA
1121 TAGTTATACA CTGTGCACCT GCTAGTGCTG GAAATTGAAC
CATTGTGCAT GTGGTGAAC GCAATCTGTA AGGTTATATT
1201 TTTGATCTAA TAATAGTTAT AAATCATGTA CAACCTCTCT
CCATTTATAA CATCATTAAT GCGTGATGTA TAAGATATAC
1281 TCCCTCCGTC TAAAATAAAA TGTCTCACTT ATCTAGATGC
ATTTTAGTTA GAGACACCTA TTTTACGACG GAGGGAGTAG
1361 TAATGTTACA GGGTGTGATT TCGCTATGTA AATTATGGAG
TTACATCCAA CTTTGTAAAG GGAAATATCC CCCAAAAGAG
1441 GTTACTTCTT CTTAAGGGTT ACAGCCCAGG CACATTGCTG
TTACACTGCA TGGAGATTGT TGGGCACTTA CAAAACATTT
1521 CACTGGAAAG AGTTTTTCAT ATACGCATTT TTAAATTTA
ATTGCCAACT GAAACCCATA CCCTACTGAC GGATGAAAGC
1601 CCACTTGTGT TTCCGATTCA TACTAGGCAA TACTATGTCA
CATGTATTAT GGTGACCACA GTAATGACTT TCCTCGTTTC
```

FIGURE 21A CONTINUED

1681 TTTTCTAGTG GGTCTGGAGA CCACATGGGC TCCTACCAAA
TGAATGGGAT ACTGAATGAA TCACATAACG GGAGACACGC
1761 TTCGCTGTCT AAGGTTGTTG AATTTTGTAT GGCATTGGGT
GGAAAGACAC CAATTCACAG TGTATTAGTC GCCAACAATG
1841 GAATGGCAGC AGCTAAGTTC ATGCGGAGTG TCCGGATATG
GGCTAATGAT ACATTTGGGT CAGAGAAGGC GATTCAGTTG
1921 ATAGCTATGG CGACTCCGGA AGACATGAGA ATAAATGCAG
AGCATATTAG AATTGCTGAT CAGTTTGTG AAGTACCTGG
2001 TGGAACAAAC AATAACAAC ATGCAAATGT CCAACTCATA
GTGGAGGTCA GTACTGTTCA CCCCTTTGAT GTGCAATTTA
2081 TGCACAAGCT ACTCTTTGTT CTTTATAGCAT GACATTTGAC
ATGGCAACTT TGCTTTTGCA GATAGCAGAG AGAACAGGTG
2161 TTTCGGCCGT TTGGCCTGGT TGGGGCCATG CATCTGAGAA
TCCTGAACTT CCAGATGCAC TCACTGCAAA AGGAATTGTT
2241 TTTCTCGGGC CACCAGCATC ATCAATGAAT GCATTAGGTG
ACAAGGTTGG TTCAGCTCTC ATTGCTCAAG CAGCAGGGGT
2321 TCCGACTCTT GCTTGAGTG GATCACATGT AAGCGTTACA
TTCTCTCGGA TAATTCATCG CTTTATATTT GTGGTGGATG
2401 CATTTTATAA TGACATTTTA TTATAGGTGG AAATTCCATT
AGAACTTTGC TTGGACTCTA TACCTGAGGA GATGTATAGG
2481 AAAGCTTGTG TTAACCTGC GGATGAAGCA GTTGCAAGTT
GTCAGATGAT TGGTTATCCT GCCATGATCA AGGCATCCTG
2561 GGGTGGTGGT GTTAAAGGGA TTAGAAAGGT ACATTATTCA
TTTGTTTGCA CTGTACTCAA GAGATTCTGT TATTATGTGT
2641 GCAGTGTTAG ACCTAACCTT TTAAACATAT TAACTCGACA
TCTCTTGCA GTTAATAATG ATGATGAGGT TAAAGCACTG
2721 TTAAAGCAAG TACAGGGTGA AGTTCCTGGC TCCCAATAT
TTATCATGAG ACTTGCACTC CAGGTTAGAC TTGTCTTGAA
2801 TTTCTATTTT CCAAGGATGC TGTTTCTGGG TGGTATATTG
TACACCTGGA AGCTTCATTT GCTCTTCCTT GTAGGCTAGA
2881 ATTGTAGTTT GTAATCTGTA CTCATATGGT AATTTTCATT
TTAATCTCTT CCCCCTTCC TTTTGTAGAG TCGACATCTT
2961 GAAGTCCAGC TGCTTTGTGA TCAATATGGC AATGTAGCAG
CACTTCACAG TCGTGATTGC AGTGTGCAAC GACGACACCA
3041 AAAGGTATGG TCCTAGAGAT GGAAACCATC ACTTTTATTA
CGGGTCTGCT TACCTGTAGT TTTGACCACA TGGTTCAATT
3121 CCGTCCTTTT TGTTTTGTGA TAACAGATAA TTGAGGAAGG
ACCAGTTACT GTTGCTCCCC GTGAGACAGT GAAGGAGCTA
3201 GAGCAAGCAG CAAGGAGGCT TGCTAAGGCT GTGGGATATG
TTGGTGCTGC TACTGTTGAA TATCTCTACA GCATGGAGAC
3281 TGGTGAATAC TATTTTCTGG AGCTTAATCC ACGGTTGCAG
GTTTGTCTT TTGAACACTC TACAGGACTT CTATTTTTTT
3361 TGGCAGTCAT TTACATGGTT AAATGGTCTA CATTGAGTT
GAGCACCCAG TCACTGAGTG GATAGCTGAA GTAAATTTGC

FIGURE 21A CONTINUED

3441 CTGCAGCTCA AGTTGCAGTT GGAATGGGTA TACCCCTTTG
GCAGGTTCCA GGTAATAATA AAATCATCGT AATATCTTTA
3521 GTTTCTGGCC CATGTTATTT CGTTGTCTAA TTATCTCCTT
ACACAGAGAT CAGACGTTTC TACGGAATGG ACAATGGAGG
3601 TGGCTATGAC ATTTGGAGGA AAACAGCAGC TCTTGCTACT
CCATTCAACT TTGATGAAGT AGATTCTCAA TGGCCGAAGG
3681 GTCATTGTGT TGCAGTTAGG ATAAC TAGTG AGAATCCAGA
TGATGGATTG AAGCCTACTG GTGGAAAAGT AAAGGTGGGA
3761 TTTCTAATG TGATATCTAT GTTCAAGCA CACTAGGGTT
AGTAACTCA TCTGGTCTTG ATTTTTCGTA TATTTTCAGGA
3841 GATAAGTTTT AAAAGTAAGC CGAATGTCTG GGGATATTTT
TCAGTTAAGG TAAGCTAAGC GTTTCATAGC TCTATTGCAG
3921 TGCCATGTTA TTTTGAGTTC TGCAGAAAAT TGGTCTGCAA
GATTTTTTAT TTGAATTAGT ATTCTCATTT TGGTTTTGAT
4001 TGACTAAGTA CTGATCCAAT CAAAAAATCT TTTCTCCCC
TCTTCATCTG TTTTCAGTCT GGTGGAGGCA TTCATGAATT
4081 TGCAGATTCT CAGTTTGGTA TGTAATACCC AGTGCATATT
CCTCTTTGCT ATTTGTATTG ATCCTTACAT TGGAAATTGC
4161 TCCTTCGATT ACAGGACATG TTTTGCCTA TGGAGTGACC
AGATCAGCAG CAATAACCAG CATGTCTCTT GCATTAAAAG
4241 AGATTCAAAT CCGCGGAGAA ATTCATTCAA ACGTTGATTA
CACGGTTGAT CTCTTGAATG TAAGTAATAA TAGCAACTTG
4321 TTGAACCCTA CTTTTTGATT TTACATCAGG CTTTCTTCA
AAATAATCCC TTCTTGTTGGT TTCTGCATCA GGCCCCAGAC
4401 TTCAGAGAAA ACACGATCCA TACCGGCTGG CTGGATACCA
GAATAGCTAT GCGTGTTCAA GCTGAGAGGC CTCCCTGGTA
4481 CATTTTCAGT GTTGGAGGAG CTCTATATGT AAGCCAATGA
AACTAGTTAA TGTTACAGCA ACTTTTGGCA AGCCAATTGT
4561 GAAAAACACA ACTAGTGTTG AAATGATTGT TTTGTGTTGT
AGAAAACAAT AACCACCAAC GCGGAGACTG TTTCTGAATA
4641 TGTCAGCTAC CTCATCAAGG GTCAGATTCC ACCAAAGGTA
GTGTCTTAAT TGGCATAAAC TCTGTATATT ACTTGAAGGT
4721 GAACGTTGCT GACCATTATT TTTGTGCAGC ATATATCCCT
TGTGCATTCA ACTATTTCTT TGAATATAGA GGAAATCAAA
4801 TATACAGTAA GTGCGGCATT CCTTAAGAAA GATTCAGTTA
TAATGCAATG ATAGCTACCA TTGATGCTCA TCTACACCAT
4881 GTCACAGATT GAGATTGTGA GGAGTGGACA GGGTAGCTAC
AGATTGAGAA TGAATGGATC GCTTATTGAA GCAAATGTAC
4961 AAACATTATG TGATGGTGGC CTTCTAATGC AGGTATTTAT
ACTTGCTCAT AAATATAATC TAAGGTTGAA AAGTACTGCC
5041 GAAAGAGTTC TGATTCTTTG GTTGTAATTT CTCCAGCTGG
ATGGAAACAG CCATGTTATT TATGCTGAAG AAGAAGCAGG
5121 TGGTACACGG CTTCTTATTG ATGGAAAGAC ATGCTTGTTA
CAGGTAAGGA TATTCTCTTT GTTTGTTCTT TTATCTATAA

FIGURE 21A CONTINUED

5201 TCTTGGTGTT TGATGATTGG ATTCGTATT CCTATTTGTG
ACTTGTTACT GACTTACTGC AGTCACCTTC TGATCATTAG
5281 CACTTTAGTT TGAAACGAAA AGATAAATCA GTATTATGAA
CTAATGAATG GTACAACATG ATGTTTTTCA AGATCACACC
5361 AGGACCAGGT GATATTAAAT TTTACCGACA GCAGGTCTTG
TGATGTATAA GGACAAGTTA CATAGGTGCA ATATAGCTAG
5441 GAGGGCTCCA GCTCTTTTAT ATTGCTTCTT CTATTTCTCA
AATCTAGGTT TTCCAGCAAC AATAGTATTT TTAACAAGCA
5521 CTAATTATCA TAATAAGGCA CAAAAAGAGT TAGAAGGTGT
CCTTTAACAC TATGTCATGT AACCTTTAAA AGCTTGTGAT
5601 CAGATCATTT TAGTGATACA AAAGAACAAT TGAATACTTT
ATGATTTTTT TCTTACACAA AAACCTTATG ATTCTTGATC
5681 ACACTGCATT GTATCCTCAA CTAAATAAAT GACAAATCAT
TCTGCAGAAT GATCATGATC CGTCAAGGTT ATTAGCTGAA
5761 ACACCCTGCA AACTTCTTCG TTTCTTGGTT GCCGATGGTG
CTCATGTCGA TGCTGATGTA CCATATGCGG AAGTTGAGGT
5841 TATGAAGATG TGCATGCCCC TCTTGTACC TGCTGCTGGT
GTCATTAATG TTTTGTGTC TGAGGGCCAG GCGATGCAGG
5921 TTATATTACT GCACTTTTTT GTTGCTTATG CTGTTAATAA
CGATTGCATG TGAAGCATCT GAATTTAATA TTTTTTTCAG
6001 GCTGGTGATC TTATAGCGAG ACTTGATCTT GATGACCCTT
CTGCTGTGAA GAGAGCCGAA CCATTGGAAG GATCTTTTCC
6081 AGAAATTAGC CTTCTATTG CTGCTTCTGG CCAAGTTCAC
AAAAATGTG CTGCAAGTTT GAATGCTGCT CGAATGGTCC
6161 TTGCAGGATA TGAGCATGCG ATCAACAAAG TAAACTTTTA
GACCCCTACA GTAACATATAT TTCGAATATA TTGTCTCATA
6241 TTTCTGTTT TTCTCAAATA CCATTATTTA TTATTATTAT
TATGAAATTC TGGATTATTC TGAGTTCCTC ATTGACCTTT
6321 TTCTGCCTTT CGCTACAAAA TGGTTTCTAA TATATAAAAG
TTCTTCATGC TTGTCTTTGC AAATGTTGAT TCAAATGCTT
6401 TTCTCTTATG TTCATCATA TCACTTACGA TAGAGATGCT
CTTCTTTTCC GTAATTAATG TTTTGGTTTG GTGATTCCTG
6481 ATCAAACCGT GTATTTCTT GTAAATTTGT CGATAAGCTT
AGCATTTGAT TACTTTTTCC ATTGCACCTG GCTTCTTTTT
6561 CAGGTTGTAC AAGATTTGCT ATGGTGCCTA GATACACCTG
AGCTTCCTTT CCTACAATGG GAAGAGCTTA TGTCTGTTTT
6641 GGCAACTAGA CTTCCAAGAC GTCTTAAGAG TGAGGTATGT
GATAATTGAT ATGATATGGA GGATCTGGCA AAAGGGGACA
6721 TTGGCACATT TAGTTTATGA TATAGAAGGG TCTTAATCCT
TGACTAAATG ATCATCTCAC TTATCGTGGT TTACATTGTA
6801 CATTGATCAA TCACCTTGGT AATTCGACAT AACTTATTGC
ACAACCTTTA AAATGTCTTT AGATTCTAAT AATGAAATAA
6881 AAATTCAGAA TATTCAGCTT CAGTTCTTCA TAATATGAAA
TATTTGGTAC TTTGTCTCAT TTATTTGCAC TCTACGTTGT

FIGURE 21A CONTINUED

6961 TTTAGTTGGC TTGCCATTCT AACTGAATCT TTAAAGAAGT
TCTTGTTTGG TTTAGCCAGT TCTTGTTTAT TGATCTTTTG
7041 TACCTTGTGT TCTGCCTCAA CGGATTCTAA TTTTATGCA
ATCAGTTGGA GCGTAAATAC GATGAACTTA AGTTGAATAT
7121 TGACCATATG AAGACCAAGG ATTTCCCCAC CGAGATGCTT
AAAGAGACAA TCAAGGTCAG TTTTGGTTT CTGGTGGCAT
7201 CCCGGTCTAA GTTGTACTAT TTTTGTAAAC AAGTTTTCTT
TTAGGAAAAT CTTGCATATG TTTCTGAGAA TGAAATGGCG
7281 ACAATTGAAA GGCTTGTTGA GCCTCTGATG AGCCTACTGA
AGTCATATGA GGGTGGGCTA GAAAGCCATG CCCACTTTAT
7361 TGTCAAGTCC CTTTTCGAGG AGTATCTTTT GGTTGAGGAA
CTATTCAGTG ATGGCATTCA GGTATTCTTT CATTTCAAAA
7441 CTGAGAAAAAT CTACTAGATT CATTTTTACG GGTCATTCCCT
TTTAAACATA TATGAACTGA TGTTATATAC TCCATCCGTC
7521 CATAAAAGGA TGTCAGAGGT TTGTCCAAAT TCGGATGTAT
CTGTACACTA AAAAGTGTCT ACATCCGAGT TTATACAAAC
7601 TTCTGACATC CTTTTATGGA CAGATGTTGT ACATATTGTT
GATTGCATCA GAACCTTTTT TTGTAATTAA GTACCAAATA
7681 TTTTGTACAT GGCAAGAAAT TGATTGATTT CCCCAAAATG
TGTTATTTTG TAGTCTGACG TGATTGAACG ACTACGCCTA
7761 CAATATAGTA AAGACCTTCA GAAGGTTGTA GATATTGTTT
TGTCTCACCA GGTAAGTTAC TTTTGGCCTA ATGACTTGGT
7841 GCAATTGATC ACTGAAGCAA TCTTCGTCAC TGATAGTTTG
ATTTTTTTTCT AGGGTGTGAG AAACAAAACCT AAGCTGATAC
7921 TCACGCTCAT GGAGAACTG GTTTATCCAA ATCCTGCTGC
CTACAGGGAT CAGTTGATTC GCTTTGCTTC CCTCAACCAT
8001 AAAAGATATT ATAAGGTGAC AATGGCGACC TAAAAGAAAT
GGAAGCTTTT GGATAATCTT AATGTGATAT CTTAGGCTAA
8081 CGAATTACTT TCATTGTAAT AATGTAGTTG GCCCTTAAAG
CGAGTGAAC TCTTGAACAA ACCAAGCTCA GTGAACTCCG
8161 CACAAGCATT GCAAGGAACC TTTCAGCTCT GGAGATGTTT
ACTGAGGAAA GGGCAGGTTT CTCCTTGCAA GCCAGAAAAT
8241 TGGCCATTGA TGAGAGCATG GTAGATTTAG TCACTGCCCC
ACTGCCAGTT GAAGATGCAC TTATTTCTT GTTTGATTGT
8321 AGTGATCAAA CTCTCCAGCA GAGAGTGATT GAGACATACA
TATCTCGATT ATACCAGGTA ATGCATGAGC TATTTTTTGC
8401 ATCTTCTGCT TTTCTGGATG CAAACACTAA AGTTTCTAAT
GAATAAGATG ATCAGTGTGG AAGTATTTGA TTTAGAACTT
8481 GTAAGACATT TACTGCTCTA TAAGTGGGCT AACTTGCCAA
TGATATTTTC AGCCTCAACT TGTGAAGGAT AGTATCCAGC
8561 TGAAATATCA GGATTCTGGT GTTACTGCTT TATGGGAATT
CACCCAAGGG CATCCTGAGA AGAGATTGGG TGCTATGGTT
8641 ATCCTGAAGT CGCTTGAATC TGTGTCGACA GCCATTGGAG
CTGCTCTAAA GGATACATCG CATTATGCAA GCTCTGCGGG

FIGURE 21A CONTINUED

8721 TAACACGATG CACATTGCTT TGTTGGGTGA TACTCAAATG
AATACAGCTG AAGATAGGTA TGTTTCATGTG CATATTAGTG
8801 CTGATGAGTT TATTTGGTGC AATTCTTAAA ATAACCTAAC
CTATTTCTTT CAGTGGTGAT CATGACCGAG CTCAAGACAG
8881 GATAGACCAA CTTTCTTTGA TACTGAAACA GGATACTGTC
ACGGCTGATC TATGTGCTGC TGGTGTCAAG GTTATTAGTT
8961 GCATTGTCCA AAGAGATGGT GCACTCATGC CCATGCGCCG
TACCTTCCTC CTGTCAGATG AGAAGCTTGG TTATGAGGAA
9041 GAGCCGATTC TCCGGCATGT GGAGCCTCCA CTTTCTTCAC
TTCTTGAGTT GGTATGCAAC TCATCAAACCT GACTGCATGA
9121 TGTTTTGATA CAACTTAAAA TGCTATTATT TTGTTATCTG
CTACTTGTAT TTATTTAGCC TGCTTTGGAT ACAGGATAAA
9201 CTGAAAGTGA AAGGATACAA TGAGATGAAG TATACACCGT
CACGTGATCG GCAGTGGCAT ATATACACAC TTAGAAATAC
9281 TGAAAACCCC AAAATGTTGC ACAGAGTATT TTTCCGAACT
CTTGTCAGAC AACCCAGTGC TGGCAACAGG TTTACGTCAG
9361 GCCATATCAG CGATGTTGAA GGGGGACCTG CTGAGGAATC
TCTTTCATTT ACGTCTAGCA GCATAATGAA ATCGCTGACG
9441 ACTGCTATAG AAGAACTGGA GCTTCACGCG ATCAGGACTG
GCCATTCTCA TATGTACTTG TGCATATTGA AGGAGCAAAA
9521 GCTTCTTGAC CTTATTCCCG TTTCAGGGTA AGCTTGGACA
TTGTTCTTTT TACATAACAT ATATGCCTTG CTCTTGTGTC
9601 TCACCTTCTC AATGTGCTTT TCATCGTACA CAGGAGCACT
GTTGTGGATG TTGGTCAGGA TGAAGCTACT GCATGCTCTC
9681 TTTTGAAAGA AATGGCTCTA AAGATACATG AACTTGTGTTG
TGCAAGAATG CATCATCTTT CTGTATGTCA GTGGGAAGTG
9761 AAACCTAAGT TGGATAGCGA TGGACCTGCC AGTGGTAGCT
GGAGAGTTGT AACAAACCAAT GTCACCTCCTC ACACCTGCAC
9841 TGTAGATGTA AGTTTTATTG CCTTGCATCT TGTTTTCTG
TATGGAACTA ATGAAACTAA AGTGAACATA TGATACTTAT
9921 ATACATAGAA CTACCATCTT ACTTAGTTGT CATTTCCACC
TCATTTAGAC ATATGGTCTG AAGCTCATGG TGCTTTTAAT
10001 GCTTTTAGAT CTACCGGGAG GTCGAAGATA CAGAATCACA
GAAACTAGTA TACCACTCTG CCTCATCGTC ATCTGGTCCT
10081 TTGCATGGTG TCGCACTGAG TAATTCGTAT CAGCCTTTGA
GCATTATTGA TCTAAAACGA TGCTCTGCCA GGGCCAACAG
10161 AACTACATAC TGCTACGATT TTCCATTGGT TAGTATCTAT
CTCTACGTTT GTGTATTCTG TTAGCAGATT ACTATTGGTA
10241 TTACATGTCC TCCTAAAGCT GATAAGAACT CAAAAATGTA
GGCATTTGAA ACTGCAGTGA GGAAGTCATG GTCTAACATT
10321 CCTAGAAACA ACCAATGTTA TGTTAAAGCG ACAGAGCTGG
TGTTTGCTGA CAAGAATGGG TCGTGGGGCA CTCCTATAAT
10401 TCCTATGCAG CGTGCTGCTG GGCTCAATGA CATCGGTATG
GTAGCCTGGA TCTTGGACAT GTCCACTCCC GAATTTCCCA

FIGURE 21A CONTINUED

10481 GTGGCAGACA GATTATTGTT GTCGCAAATG ATATTACTTT
TAGAGCTGGA TCATTTGGCC CAAGGGAAGA TGCATTTTTT
10561 GAAGCTGTTA CCAACCTGGC TTGTGAGAGA AAGCTTCCTC
TTATCTATTT GGCTGCAAAC TCTGGTGCTC GGATTGGCAT
10641 TGCCGATGAA GTTAAATCTA TCTTCCGTGT TAAATGGATT
GATGATAGCA ACCCTGAACG TGGATTTGAT TACGTTTATC
10721 TGTCTGAAGA GGACTATGGC CGTATTAGCT CTTCTGTTAT
AGCGCACAAAG ACACAGCTAG ATAGTGGCGA AATAAGGTGG
10801 GTTATCGATT CTGTTGTGGG CAAGGAGGAT GGACTAGGTG
TGGAGAACAT ACATGGAAGT GCTGCTATTG CCAGTGCGTA
10881 TTCTAGGGCA TATGAGGAGA CATTTACACT TACATTTGTG
ACTGGACGAA CTGTTGGAAT AGGAGCCTAT CTTGCTCGAC
10961 TTGGCATAAG GTGCATACAG CGTGAAGATC AGCCCATAT
CTTAAGTGGG TATTCTGCCC TGAACAAGCT TCTTGGGCGG
11041 GAAGTGTAAC GCTCTCACAT GCAGTTGGGT GGTCCCAAAA
TCATGGCGAC TAATGGTATT GACCATCTGA CTGTTTCGAGA
11121 TGACCTTGAA GGTGTTTCTA ATATATTGAG GTGGCTCAGC
TATGTTCTCTG CTAACATTGG TGGACCTCTT CCTATTACAA
11201 AACCTTTGGA TCCAATAGAC AGACCTGTTG CATACATTCC
TGAGAATACA TGTGATCCTC GTGCAGCCAT AAGTGGCATT
11281 GATGACAGCC AAGGGAATG GCTGGGTGGT ATGTTTGACA
AAGACAGTTT TGTGGAGACA TTTGGAGGAT GGGCGAAGAC
11361 AGTAGTTACT GGCAGAGCAA AACTTGGAGG GATTCTGTG
GGTGTATAG CTGTGGAGAC ACAGACCATG ATGCAGCTCG
11441 TCCAGCTGA TCCAGGACAG CCTGATTCCC ATGAGCGGTC
TGATCCTCGT GCTGGGCAAG TCTGGTTTCC AGATTCTGCT
11521 ACCAAGACAG CGCAGGCAAT GTTGGACTTC AACCGTGAAG
GGTTACCTCT ATTCATCCTT GCTAACTGGA GAGGCTTCTC
11601 TGGTGGGCAA AGAGACCTTT TTGATGGAAT TCTGCAGGCT
GGATCAACAA TTGTTGAGAA CCTTAGGACA TATAATCAGC
11681 CTGCCTTTGT ATATATCCCC AAGGCTGCAG AGCTACGTGG
AGGTGCTTGG GTCGTGATTG ATAGCAAGAT AAATCCAGAT
11761 CGCATTGAGT GCTATGCTGA GACAACTGCA AAAGGGAATG
TTCTCGAGCC TCAAGGGTTG ATTGAGATCA AGTTCAGGTC
11841 AGAGGAACTT CAAGAATGCA TGGGTAGGCT TGATCCAGAA
TTGATAAATC TGAAAGCACA ACTCCAGGGA GCAAAGCATG
11921 AAAATGGAAG TCTATCTGAC GGAGAATCCA TTCAGAAGAG
CATAGAAGCT CGAAAGAAAC AGTTGCTGCC TTTGTACACT
12001 CAAATCGCGA TACGGTTTGC TGAATTGCAT GATACTTCCC
TCAGAATGCT TGCTAAAGGT GTGATTAGGA AAATTGTAGA
12081 TTGGGAAGAA TCTCGGTCTT TCTTCTACAA GAGATTACGG
CGGAGGATAT CTGAGGACGT TCTTGCAAAA GAAATAAGAA
12161 GTGTAATTGG TGTCGAGTCT TCTCACAAAT CAGCAATGGA
GTTGATTAAG AAGTGGTACT TGGCTTCTGA GACAGCTGGA

FIGURE 21A CONTINUED

12241 GGAAGCACTG AATGGGATGA TGACGATGCT TTTGTTGCCT
GGAGGGAGAA CCCTGAAAAC TACAAGGAGC ATATCAAAGA
12321 GCTTAGGGCT CAAAGGGTAT CTCAGGTGCT CTCAGATGTT
GCAGACTCCA GTTCGGATTT ACAAGCCTTG CCACAGGGTC
12401 TTTCCATGCT ACTAGATAAG GTACACATGC TTACAGTTTT
AGCTGCATCT ATTTTGTTTG CAAGTTATTT GCTGAGGGTG
12481 AGTAAAATGT TGCTATCTTC ATATACACTT AGTCTGTAAC
CAAACAATGC CGCTATCTTT TTCATGTAGT ATCGTACCAA
12561 ATAATGTCTG ACACACTTTT CTTTGGACAC TTTGTAGATG
GATCCCTCTA GGAGAGCAGA GTTTATTGAG GAGGTCAAGA
12641 AGGTCCTCAA ATGA

FIGURE 21B

Lolium perenne plastidal ACCase NC067245.1 (SEQ ID NO: 966)

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1  MGSTHLPIVG LNASTTPSLS TLRQINSAGS TFQSPSPSRS
SKKKSRRVKS IRDDGDGSVS DPAGHNKSIR QGLAGIIDLP
81  KEGTSVPEVD ISHGSGDHMG SYQMNGILNE SHNGRHASLS
KVVEFCMALG GKTPIHSVLV ANNGMAAAKF MRSVRIWAND
161  TFGSEKAIQL IAMATPEDMR INAEHIRIAD QFVEVPGGTN
NNNYANVQLI VEIAERTGVS AVWPGWGHAS ENPELPDALT
241  AKGIVFLGPP ASSMNALGDK VGSALIAQAA GVPTLAWSGS
HVEIPLELCL DSIPEEMYRK ACVTTADEAV ASCQMIGYPA
321  MIKASWGGGG KGIRKVNND EKVLFKQVQ GEVPGSPIFI
MRLASQSRHL EVQLLCDQYG NVAALHSRDC SVQRRHQKII
401  EEGPVTVAPR ETVKELEQAA RRLAKAVGYV GAATVEYLYS
METGEYYFLE LNPRLQVEHP VTEWIAEVNL PAAQVAVGMG
481  IPLWQVPEIR RFYGMDNGGG YDIWRKTAAL ATPFNFDEVD
SQWPKGHCVA VRITSENPDD GFKPTGGKVK EISFKSKPNV
561  WGYFSVKSGG GIHEFADSQF GHVFAYGVTR SAAITMSLSA
LKEIQIRGEI HSNVDYTVDL LNAPDFRENT IHTGWLDTRI
641  AMRVQAERPP WYISVVGAL YKTITTNAET VSEYVSYLIK
GQIPPKHISL VHSTISLNIE EIKYTIEIVR SGQGSYRLRM
721  NGSLIEANVQ TLCDGGLLMQ LDGNSHVIYA EEEAGGTRLL
IDGKTCLLQN DHDP SRLAE TPCKLLRFLV ADGAHV DADV
801  PYAEVEVMKM CMPLLSPAAG VINVLLSEGQ AMQAGDLIAR
LDLDDPSAVK RAEPFEGSFP EISLPAAASG QVHKKCAASL
881  NAARMVLAGY EHAINKVVD LLWCLDTPEL PFLQWHEELMS
VLATRLPRRL KSELERKYDE LKLNIDHMKT KDFPTEMLKE
961  TIKENLAYVS ENEMATIERL VEPLMSLLKS YEGGLESHAH
FIVKSLFEY LLVEELFSDG IQSDVIERLR LQYSKDLQKV
1041  VDIVLSHQGV RNKTKLILTL MEKLVYPNPA AYRDQLIRFA
SLNHKRYYKL ALKASELLEQ TKLSELRTSI ARNLSALEMF
1121  TEERAGFSLQ ARKLAIDSM VDLVTAPLPV EDALISLFDC
SDQTLQQRVI ETYISRLYQP QLVKDSIQLK YQDSGVTALW
1201  EFTQGHPEKR LGAMVILKSL ESVSTAIGAA LKDTSHYASS
AGNTMHIALL GDTQMNTAED SGDHDRQDR IDQLSLILKQ
1281  DTVTADLCAA GVKVISCIVQ RDGALMPMRR TFLLSDEKLG
YEEEPILRHV EPPLSSLLEL DKLKVKGYNE MKYTPSRDRQ
1361  WHIYTLRNTE NPKMLHRVFF RTLVRQPSAG NRFTSGHISD
VEGGPAESL SFTSSSIMKS LTTAIEEEL HAIRTGSHM
1441  YLCILKEQKL LDLIPVSGST VVDVGQDEAT ACSLLKEMAL
KIHVLGARM HHL SVCQWEV KLKLDSDGPA SGWRVVTN
1521  VTPHTCTVDI YREVEDTESQ KLVYHSASSS SGPLHGVALS
NSYQPLSIID LKRCSARANR TTYCYDFPLA FETAVRKSWS
1601  NIPRNNQCYV KATELVFADK NGSWGTPIIP MQRAAGLNDI
GMVAWILDMS TPEFPSGRQI IVVANDITFR AGSFGPREDA
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FIGURE 21B CONTINUED

1681 FFEAVTNLAC ERKLPLIYLA ANSGARIGIA DEVKSIFRVK
WIDDSNPERG FDYVYLSEED YGRISSSVIA HKTQLDSGEI
1761 RWVIDSVVGK EDGLGVENIH GSAAIASAYS RAYEETFTLT
FVTGRTVGIG AYLARLGIRC IQREDQPIIL TGYSALNKLL
1841 GREVYSSHMQ LGGPKIMATN GIDHLTVRDD LEGVSNILRW
LSYVPANIGG PLPITKPLDP IDRPVAYIPE NTCDPRAAIS
1921 GIDDSQGKWL GGMFDKDSFV ETFGGWAKTV VTGRAKLGGI
PVGVIAVETQ TMMQLVPADP GQPDHERSD PRAGQVWFPD
2001 SATKTAQAML DFNREGLPLF ILANWRGFSG GQRDLFDGIL
QAGSTIVENL RTYNQPAFVY IPKAAELRGG AWVVIDSKIN
2081 PDRIECYAET TAKGNVLEPQ GLIEIKFRSE ELQECMGRLD
PELINLKAQL QGAKHENGSL SDGESIQKSI EARKKQLLPL
2161 YTQIAIRFAE LHDTSLRMLA KGVIRKIVDW EESRSFFYKR
LRRRISEDLV AKEIRSVIGV ESSHKSAMEL IKKWYLASET
2241 AGGSTEWDDD DAFVAWREN ENYKEHIKEL RAQRVSQVLS
DVADSSSDLQ ALPQGLSMLL DKMDPSRAE FIEEVKKVLK

FIGURE 22A

cDNA sequence of *Panicum virgatum* plastidal ACCase
NC053142.1 (SEQ ID NO: 967)

```
1  GCCGATGCGG GCCGCGAAAT TATTATTTTA GGCCGCACAC
   CCCCCATCCC TCCGCCCTCC TGGTTCGCCC CCACCCCTCG
81  GGATATCCGC CTCGCCTCCA CTCCGCCCGG CGCCTCCTCC
   CCGTCCTTCC TCCTCTGCTC CGCCCAGCCG TCGCAAGGAT
161 CCAACCCCCG CGCGTCGCCT TCTCCGCAGC CTCCCCCTTT
   CTTCCCAGAG TATGAGCTCT CTGCCGCTC CGCTATTTAT
241 TTGTCCTGCT CGTCACCAGC GCCGCTCCCT CTGTCGGAGC
   GCAGCGGAGC TCGCCAGATC CGCGCGCCGC ACGCCGATCA
321 GCGACATCGC CGGTGAGACC GCGCGCTGTC ATTGCTCTTC
   CCGTTGCGGT GGGATGGGGT GGTGGTCTG GCTGAGTAGT
401 GGGTTTATGG CTGGATTCGT CAGCACGGGC AGGGGTTTTG
   CACCCGGCTG GGCTGAATCC TATGAATTCC ATACGGGAAT
481 GGGAGGCTGA CCGGAGTGGG TGATGGATTC GGGCTCTATA
   GTTGATTGCA GCTGCTGCGA AGGTGAAATG TAGGTTGTCT
561 CTCCTTGCAG GATGAAGGGG TAGCCTCTGG CTGACTCTGC
   TAGTTTCCAG TGTTGCAGGC TGTGGTCTAG TCAGTGATGC
641 CCGTGCCGAT GCTAGATTGC TAGTGCCGT TCTGCTGGTA
   CTTGGTATGA GTGGCTTTAA GGTTTAAGGT GTAGTACTAG
721 CTGTCTGATG AATTAAGGTT TAAGCACTCT TTTTTCATG
   TGGGCAGGTA AGTTATGCGC ATGGCTTTGT TGCTTGTTCA
801 TTTTGTGCTA TGTGTCAATG TTTATATTCT GGGTAGTCGG
   TACTGTTCCA TTGCACCTTT GTGGTTGGT AGTTTCGTAT
881 CTTTTCTTTT TCCCTGGTTA TCTACTACTC ACATGCAATT
   CGTGCCTACT TTTGTGTGTC ATATTTACTT TAATTTCTTT
961 TTGCTGCATG TTAAATCTAA AAATAAAGTG TCGTCGCATC
   AGTATGTTGT GCATGGAAAT GGAGTGTTAC CTACACTTTT
1041 TGGAAAAAAA AGAAAGCAAT CCACTCTGAG ATGGAATGAA
   CATTTAGTAT GAAACTTGA TTTACCTTCT CTGGAATGAA
1121 TACTCCAAAT GTATAACAAT ATCTATATAC TTCATACCCA
   TTAAGTGCAT TTAATTTCTC TAAACATCTC CTCACAAGCT
1201 GCCTCATCAG CTCGATTATT CTGTCCGTCT GATGCAACTT
   TGTGCTAGTC TTCTCTCCAC TGTAAGCATG TCTCCCCGAC
1281 TCTTCTCTTC CACATCCATC ATATAACTGA CGATGAACCC
   AATGGTCCAT GATTTTCAAC AAAGAGATTG CTCTCTTGGA
1361 TTTCCATATA GTCTCCAAAA GTGCACCATT ATATCTATAT
   GAGCAACTAA ACAGCCATTA TCTGGCTACA CAGTTCATCC
1441 GTTTATGTGC GCAACTGAAC ATGCACTGTC CTTCCACCTC
   CCAATCTTCT CAGAGGTCAC CAATAAGCTA GATAAGATCT
1521 CAACATAGTA GGTGCCCATT AGGGATGCAA GTGGGTACCC
   AATGGTGTTC TATGGGTCAA CTAAATAATT ACGATGGCAT
1601 GCCATCGGCC ATCCTAGTTC ATTTCTCCTC CTAAATTAAT
   TACGCATATG CCATCCTATT TCATTCTATC AAAGTTTTGG
```

FIGURE 22A CONTINUED

1681 GTCGACCCAA TGACCCAAAA TATATATAAC TTGCATCCCT
AGTGCCCATATA GCTTTCAAAA TGAGAGGGTT TCTAAAACAT
1761 CACTAAAAAC ATGGACATGG TGGGTGCTGG ATAAACTTTA
CCTTCTTGA CTCTGAAATA GGTTTTACTA GCCCAGTGAC
1841 CTATAAACTC TAATCTTCT TTTATTTTCT TTGATATTCT
AACTTCCTAA GAGTATTCTG CTATAGAGCA CTGATGAAGT
1921 TGTTGTGCAT TGACATAACA AATAACTTTC TCATTGGCTT
CTATCAGATT TCCAGGAGTT TTCCCTCTGG TTTAATGGCA
2001 CTGTGCCTTT GAGAAAATCT TTAATTGTGC TGTCTGGGCT
GCGGAACGAC AATGTCGCAA CTTGGATTAG CTGCAGCTGC
2081 CTCAAAGGTG CTTCCACTAC TCCCTAATCG CCAGAGGAGT
TCAGCTGGAA CCACATTCAC ATCTGGATCA TCGAGGCCCT
2161 CAAACCGAAG GAAAAGCTGC ACTCGTTCAC TTCGTGATGG
AGGAGATGGG GTATCTGATG CAAAAAGCA CAACCAGTCT
2241 GTTCGTCAAG GTACTGTGAG ATATTTTTTT TTTCTGATTC
AAGCTAAAAT TTTGCTTCCA TCTAGATATG AATGAAGTTT
2321 TTCTTGCATG ATATTGTTTA ATATTGTAAT GTTACAGCCT
CAATAATATG TGTGACATAA AAATGGTAGC TGTGGAAGTT
2401 GCTCTGATAA AACAGTACTG CAGCAAGACC ATAATCTTTT
CTTTTTCCGA TAAGCAAGAG TAACTTTTAA ATATTCAATA
2481 TGATGTTCTT GTAAGTGCAT ATACGGTAAT GCTATTCTAC
ACCCACCTTC TATTACTAGC AAAAATAATC TTTTTTGTCA
2561 GTGAAATATG CACAGAAAAT TAGATTATAG TTGCTAGGGT
ATTAACGTAG ATGTGCTCAG TCTCAAATGT TTGTCTTCAT
2641 GCAGGTCTTG CTGGCATCAT CGACCTCCCA AATGAGGCAA
CATCGGAAGT GGATATTTCA CAGTACGTAC TTTGACATTT
2721 TACAGTTTTA TTACATGTTT ATTTTGGAAA ATATTCTGCA
GCTTATTTAT ACTAATTTCC TCATTACTAC TTGTCTTAGT
2801 GTTGCTCTGT GCTGAAATAT TGTAGTACCA CACACCTCAA
TGTTATCATA GTAAATGATT CAAAATATGT GCTGTCCTGT
2881 TGCAGTTTGT AACACAGTCA GGGACCTGTT TCTGTATCTG
CTATTTAGAG CATAATGAAT ACGCTCACTC ATATGATGCA
2961 GTCTAGGTCA TTGTTATGAC CCTAGTTCAT AATGGGGGTA
AACATCTGCC GGAAGATAG CCGGACGGCA ACGGCTGATT
3041 AGGTTGGGAT TGGATCTAGA CTGGGGAGAT GAATTGGGGA
TTGGGACTAG ATTGATTTCT CATAATTCTT GCTTGCCTTG
3121 AATGACATAT CTTCTCTCTT TATATAGAGA GGGTTTCTTG
ACCCCTAAGT AAGACCTAAT CTGATCCCTA AACCTAACCC
3201 TAATGGGCCT GCCTAGACGG CCCATAAGAC CTCTGACTGC
CCATGACATT ACTCCCCTCT TTTTGAGCAG CTCGTCCTCG
3281 AGCCGCAACA CACCCTGCTT ATAGAGACGA CACAACTTTT
TATAAATTGA ACACCTAAAA AATAAGCCTT TTACATCTCT
3361 ACTTATTTTC TTATTTTCTA TTAAGACACA AACTAATTTG
AAAGATTCTGA TTTGCGGAGC TCTCCCGAAT TTAGGTGGAC

FIGURE 22A CONTINUED

3441 CCCATCTTGA CGCATGCAGA GAGAGAAGGC AGAAGCACCT
CCATCCATGC GCCATCAACC CCTCCTGGTA ACTCGCATGC
3521 AACCCGCAAT TAGGCGTGTA TGCAGCAACA GATCCCCCA
GGAAGCATTG ACATGCAGCA AACACAGCAA CTCTTGGCTC
3601 CCGTGGAAAC TGCAGACTTG TGAGCTGCAC GTGAACTGCT
GTGTCATGAA ATATGTGGCA GCCCACCAGC CAAACATCAG
3681 CTTTTTTTGGC CCACCACAAG CCCAGCTTCG TGTCTCTCCC
CACGGGGAAG GCAAGCTCCG TCGCCCCGTT CATTGCCGCA
3761 ATCTGCGGCC GAGAAGATGC ACTGGAAACC TGCAAGCTAG
AGCGGAAGGG CGGCGGCACG CGGTGACTCG AAGAAGCCCT
3841 CCACGGCTGC TAGCGGAGGC GACCTCACAG AGGCCATCGG
TGGCGGCGGC CTAGCATCGA CCAGCATCGT GCGCTTGCAG
3921 GCAGCAGACC GCGGAGGCGA CTTTGCTGTG GCAGGCGCCG
AGGGCGCCAT GGGCGGCCG TTCGTGGCCA CAGGCGCCTA
4001 GCTGACGGTG CCTTCGGTCT GATGAAGCGG AGGTGTAGTC
GCCCCACGCG GACGCGGAAG GACGTCTGCA GCGGCGGCGG
4081 TAGCTGATGA TGCTGTAGCG GCGGCGACCC CATTAGGCCA
TCACCCGAG ACCCTTTTTG CTTTGCTGAC GAAGACTCAG
4161 AAGAGCGGTC GCCGGCCTCC ATGCGCTTCA CCGCGACGCT
GACTGACTCT AGATGAGTGC GAGCTTCCTT CATCGTCTTT
4241 TGCAGAGCAT CTACCGAAGT GGGCAGAGCC ACCAAGGCCG
ACACGCTAGG CACCAGCGGA GCAAGGGCAG ACACCGTGGC
4321 GTCCATCTTC TCCATGAGCG CCTTGAGATC AGTCATGGAC
TTCTGGAGAT CTTCCATCGG ATCAGAGCCC GAGCTATCTG
4401 ATACCAGTTG TTATGAACCT AGTTCATAAC GGGGGTAAAC
ATCCGCCGGG AAGATAGCCG GACGGCAACG GCTGATTAGG
4481 TTGGGATTGG ATCTAGACTG GGGAGACGAA TTGGGGATTG
GGACTAGATT GATTTCTTAT AATTCTTGCT TGCCTTGAAT
4561 GACATCTCCT CTCCTTATAT AGAGAGGGTT TCTTGACCCC
TAAGTAAGAC CTAATCTGAT CCCTAAACCT AACCTAATG
4641 GGCCTGCCCC GCCGGCCCAT AAGACCTCGG ACTGCCAATG
ACATTACTCC CCTCTTTTTG AGCAGCTCGT CCTCGAGCTG
4721 CAACACACCC TGCTTATAGA GACGACAACT TTTTATAAAT
TGAACACCTA AAAAATAAGC CTTTACATC TCTACTTATT
4801 TTCTTATTTT CTATTAAGAC ACAAATAAT TTGAAAGATT
CGATTTGCGG AGCTCTCCCG AATTTAGGTG GACCCCATCC
4881 TGACGCTTGC AGAGAGAGAA GGCAGAAGCA CCTCCATCCA
TGCGCCATCA ACCCCTCCTG GTAACCTGCA TGCAACCCGC
4961 AATTAGGCGT GTATGCAGCA ACAGATCCCC CCGGAAGCAT
TCACATGCAG CAAACACAGC AACTCTTGGC TCCCGTGGAA
5041 ACTGCAGACT TGTGGGCTGC ACGTGAACCT CTGTGTCATG
AAATATGTGG CAGCCCACCG GCCAAACATC AGCTATTTTG
5121 GCCCACCACA AGCCCAGCTT CGTGTCTCTC CCCATGGGGA
AGGCAAGCTT CATCGCCCCG TTCATTGTGC CAATCTGCGG

FIGURE 22A CONTINUED

5201 CCGAGAAGAT GCACTGGAAA CCTGCAAGCT GGAGCGGAAG
GGCGGCGGCA CGCGGTGACT CGAAGAAGCC CTCCAGGGCT
5281 GCCAGCGGAG GCGACCACAC AAAGGCCATC AGTGGCGGCG
GCCTAGCATC GACCAGCATC GTGCGCTTGC AGGCAGCAGA
5361 CCGCGGAGGC GACCTTGCTG CGGCCGCGC TGTGGGCGCC
ATGGGCGGCC GGTTCGTGGC CACAGGCGCC TAGCTGACGG
5441 TGCCTTCGGT CTGACGAAGC GGAGGTGTAG TCCCCCAGC
CGGACGCGGA AGGACGTCTG CAGCGGCGGC GGTAGCCGAT
5521 GATGCTGCAG CGGCGGCGCC CCCATTAGGC CATTACCCG
AGACCCTTTT TGCTTTGCTG ACGAAGACTC AGAAGAGCGG
5601 TCGCCGGCCT CCATGCGCTT CAGCGCGACG CTGACTGACT
CTAGATGAGT GCGAGCTTCC TTCATCGTCT TTTGTAGAGC
5681 ATCTACCGAA GTGGGCAGAG TCACCAAGGC AGACACGCTA
GGCACCAGCG GAGCAAGGGC AGACACCGTG GCGTCCATCT
5761 TCTCCATGAG CGCCTTGAGA TCAGTCATGG ACTTCTGGAG
ATCTTCCATC GGATCAGAGC CCGAGCTATC TGATACCAGT
5841 TGTTATGAAC CTAGTTCATA ACGGGGGTAA ACATCCGCCG
GGAAGATAGC CGGACGGCAA CCACTGATTA GGTGCGGATT
5921 GGATCTAGAC TGGGGAGACG AATTGGGGAT TGGGACTAGA
TTGATTTCTC ATAATTCTC CTTGCCTTGA ATGACATATC
6001 TCCTCTCTTT ATATAGAGAG GGTTCCTTGA CCCCTAAGTA
AGACCTAATC TGATCCCTAA ACCTAACCCT AATGGGCCTG
6081 CCCAGCTGGC CCATAAGACC TCCGACTGCC CATGACAGTC
ACCCCGATTG CGACATGCGT GTCGGACATG ATACGTGTG
6161 GACACGACGA TTCGTCATTT TCCTAAAAAC AGCGACACTG
TGATACGTAA GATAAAATAA AATAAAAAAA TAGCAATCAA
6241 CAGCACATAA AGCAAAGTAA AATATGCTCC TTTCTCTCTT
CCTATTTCTC TTCCCCGGCT CTCTCCTCCT TACTCATTT
6321 TCTCCTCCCT GCTCTGCTCT TTGCTCTCTC CCTCTCCGCC
GCGTGCCCCT CCCTCTCCCT TCCCTCTCCC GTGGTGGCGC
6401 CCCCTCCCTC TCCCGCGCCC CTCCCTATCC CTTCCCTCTC
CGGTGCGCGG CAGGGCAGCG GCCGTGGCGG GGCCAAGGTG
6481 CCGGCGGTGC CGTGGGCGGA GGAGACGGAA ACGGCGAGGA
GGCAGGGGCG GAAAGCGGCT GTGGGCGCGG CGGAGGTGGA
6561 GGAAGCCGGC GGATCTCGGC TCGCCCGCCT CCTCACGGAT
GCGGCGGCGG AGGCCCGCGC GCGGGGCGCA GCATGGCGGC
6641 ACGGCGGAGG ACACGGGGAG GCGGCGGCCT GAAGAGAGGC
GGCGGCGTGT CGATCTGTGG AGACGCGGCA AGCTGGCTCC
6721 CGGCGGCGCC GGCATCGATC TAGGGGAGGA GGCGAGGAGC
GACGGCGGCG TGCGGAACAG AGAGGAGGCG GTGGCTCGAG
6801 TGCTTATTGG GCCGGGCTGT GTCGGGGACG CGTCGGCGAT
GCGTCGGCGA GGTGTTGGAA ATTGAAAATA TATTTTTTAA
6881 ATGTTTAATC CGCCGATACT CCTTCGTTAC GTATTGGAGA
CGTATCGGGG ACGTATCGGT GTCGGACACG GTGTCCGACA

FIGURE 22A CONTINUED

6961 CCAACACGGG ACTTCAGTGA AGTGTGCGGG TAACAGAGGA
TGCAGTTACA GTCATGCTG TAGAACTACT TTCAGAATTG
7041 CTGGAGTGCA GACAATTATG AAATCATATC TGCATACATC
TTTCTCAGAC TTTTCTTCTA TGTAATTGAT TGACTGTAAC
7121 TGTACATATA TGATAGATAC ATTGCCTATT TGAACCTTGT
TGATTTATTG AAACCATGCA TATTGTAAGC ATTCTGAACA
7201 CAACAATAAT CCTTTCCTTT TGTCCTTTTG CAGTGGATCT
GAGGATCCCA GGGGGCCAGC AGAGTCTTAT CAAATGAATG
7281 GGATTATAAA TGAAGCACAT AACGGTAGAC ATGCCTCAGT
GTCCAAGGTT GTTGAATTTT GTACGGCGTT AGGTGGAAAA
7361 ACACCAATTC ACAGTATATT AGTGGCCAAC AATGGAATGG
CAGCAGCAAA GTTCATGAGG AGTGTCCGGA CATGGGCTAA
7441 TGATACTTTT GGATCGGAGA AGGCAATTCA GCTCATAGCT
ATGGCAACTC CAGAAGACAT GAGGATAAAT GCAGAACACA
7521 TTAGGATTGC TGATCAATTT GTAGAGGTGC CTGGTGGAAAC
AAATAATAAC AACTATGCAA ATGTTCAACT CATAGTGGAG
7601 GTTAGAGCTG CTAATCTTTT GGTTTACTAC TGATCCACAG
TTCCTTTCTT CTTTGGTAAC CATTGGCATA TTTATGTAGA
7681 GATTCATATT TCTCCCAGCT CAGCTACTGT GGAAGTCTAA
TTGTTACCAT TAAACTATG GACTTTTGAT ATTGCAGATA
7761 GCAGAAAGAG TAGGTGTTTC TGCTGTTTGG CCTGGTTGGG
GACATGCTTC TGAGAATCCT GAACTGCCAG ATGCATTGAC
7841 TGCAAAAGGA ATCGTTTTTC TTGGGCCACC TGCATCATCA
ATGAATGCAT TGGGAGATAA GGTTGGTTCA GCTCTCATTG
7921 CTCAGGCAGC CGGGGTCCCG ACTCTTTCGT GGAGTGGATC
ACATGTGAGT CTCACACTCT CTTTGATGAC TATCTGCTGA
8001 TCTTACCTAT ATTCATTTTC ATATTCTAAT GACACTATGT
TTAGGTTGAA GTTCCATTAG AGTGCTGCTT AGACGCAATA
8081 CCTGAGGAGA TGTATAGAAA AGCTTGTGTT ACTACCACAG
AAGAAGCTGT TGCGAGTTGT CAGGTGGTTG GTTATCCTGC
8161 CATGATTAAG GCATCTTGGG GAGGTGGTGG TAAAGGAATA
AGAAAGGTTT GTTATTTTGT GGCAACTATC TATGAAGAGA
8241 TTGTGCACAT TGGAGTTTGG TACGGAGAGC TAACCACCTT
TTTGACATGA TTAACCTGAT TTCCCTGGCA GGTTTATAAT
8321 GATGATGAGG TTAGAGCACT GTTAAAGCAA GTGCAAGGTG
AAGTCCCTGG CTCCCCAATA TTTATCATGA GGCTTGCATC
8401 CCAGGTTAGT TTTCTTTTCT GGAAGTTATA TTTGACCCCT
TATTTGTTCT CTCTGAGTTA TTGCTGCACC TTCTGGAAGC
8481 TTTGTCTAAT GCATTATTGA GAAATGAACC AATGACCATC
ATTTCTGGAG ATCAACATAT TTATGAGAAG TTAATTGATG
8561 GGCAGTGTG AAAACACAAA CAACTGAGTG GATAGCATAC
TGATAGAATC TTGGAATTAT TGTGTTCTGG TTGAAACACT
8641 GCACTTGCTT GAGTTCGACT AAGCTGGAGA GAAACAGCAT
ATTTTGTTTC CAACACTCTG TGGGGAAAAT GTTTAACCCG

FIGURE 22A CONTINUED

8721 TTTTTTTTGG ACTACCTTGA ATACACTTGT TTGCTTTTCA
AGATTATCTC TTTTATTGA ACTATGCTTT GTGATACAAC
8801 CAAAACAAGG GAAAATTGGT TCGATAGCAC CGAAACATCA
TTGTTTTTCGG AAAATAACAC TTAAAGATCG CCGTGACGTA
8881 AAATACCTCT GAAAGAATTA TTTCTGTTCC GAAAAATACC
ATTCGGTTAA TTTTGCAATG AACCAGTCAT TTTTCACTCT
8961 TGGACAAAGT GAAATGTCTC TTTTACCCTC GTCTCCTTCC
CCTGCTCGTC CTTCTCCTG CAACGCATCC GCGCGCTCAC
9041 TCCTGCCTTC CAATTTTTAG GAGGGGGGCC ACGCCCTGAC
TGGGTGCCGT GATGCGCCGT GGAGCGGTGG TCGCCCTTTT
9121 CCGTGGTGCC GCCAAGGCGC GCATACCTGA CGTCGTGCAG
GGTGCGGGCA TTGCCCCTGT CAGCTGCGAT GGTGCAGTCG
9201 GCGCGTTGGG CCACCACCAT GGACCTCTCT CTTCCCTGC
TCCTTTCTAC CGAGCTAGCC AGCAATTGGA GCAGCAGCCA
9281 GCACTATGAC CTCCAAGGAG CAGCAGTGCC GAGGGAGGGG
ACAAGGAGGA GAGACGGGAG TGATTTATAC AAGCAGAGAG
9361 ACAGAGAGGA GAGGGCCGCT CGGTGGGAGC TTAAAAAGAA
GAGGTGGGAG GAGAGAACGG GACGGCTGCT GTGAAGCGAG
9441 AAGAGGGGGA GGAGGACAAA GGAGATAGAA TCACGGTGGA
ATTAAGGGGA TGTGTGCTTG CGGGCGGAAG AAGGAAGAGC
9521 AGGGTAACAA GATAAGGGTA ATAGAGACAT TTCACTTTGT
CCAATTGAGA GGAAAGTGAC TGATTCATTG CAAAAGTTAA
9601 TGGAATGGTA TTTTCCAGAA CAGAATCATT CTTTCAGTGG
TATTTTATGT AACGACGATC TTTTACTGGT ATTTTCTGGA
9681 AACAATGATC TTTCGATGCT ATGGAACCAA TTTTTCCTCA
AAACAATTG TTCATTCTGT TCATCTGGAA GCCTAGAATT
9761 ATGCTTTGTT AGCTGTAGCC AACATTGTGT TTGATTCTAT
GTCTTGTCT CTATTATAGA GTCGTCATCT TGAAGTTCAG
9841 TTGCTTTGTG ATCAATATGG CAATGTAGCA GCACTTCACA
GTCGTGATTG CAGTGTGCAA CGGCGACACC AAAAGGTCTG
9921 AACCCTACC TACCACCCA CATAACAAT TATTGAACCA
TGCATTTTGT AATGCAATCT ATTTCTCACT TGAGTTCTG
10001 TTCAATTTTT TTTAACAAC AGATCATTGA GGAAGGCCCA
GTTACTGTTG CTCCTCGTGA GACTGTAA GCACTTGAGC
10081 AGGCAGCAAG GAGGCTTGCT AAGGCTGTGG GTTATGTTGG
TGCTGCTACT GTTGAATACC TTTACAGCAT GGAGACTGGA
10161 GAATACTATT TTCTGGAGCT TAATCCCAGA TTACAGGTTT
GCTCTGTTA GCATTGTTAT CGATTAATTA ACCCGTTGGA
10241 AATCCTTTAT AATGTTATTA AGTGGTCTCC ATTTAGGTCG
AGCATCCAGT CACTGAGTGG ATAGCTGAAG TAAATCTGCC
10321 TGCAGCTCAA GTTGCAGTTG GAATGGGCAT ACCTCTTTGG
CAGATTCCAG GTAATTACCA ATCTAACAAC TTATTTAGTT
10401 CCTTATTGTT TTAATTTCTA AATTGTCTCC TTATACAGAA
ATTAGACGTT TCTATGGAAT GGACTATGGA GGAGGGTATG

FIGURE 22A CONTINUED

10481 ACCTTTGGAG GAAAACAGCA GCTCTTGCAA CACCATTTAA
TTTTGATGAA GTAGATTCTC AATGGCCAAA GGGCCATTGT
10561 GTCGCAGTTA GAATTACTAG CGAGGATCCG GATGATGGTT
TCAAACCTAC TGGTGGAAAA GTGAAGGTAA CATT TTGTGA
10641 TGACAGATAT ATTTGTCAAA CAGATTAAGT TTGGTACAAT
GACCAGGTCT TGATTTTTTTT TTTCAATTTT TCAGGAGATA
10721 AGTTTTTAAAA GCAAGCCAAA TGTTTGGGCC TACTTCTCAG
TAAAGGTAAC CTGTTTGCAA CTTTGTTAAA CTGGCACATT
10801 AACTATTCTA CGTTGTGCAG ATAATTCATA TGGGACTGTT
TGTTTATTTA CCATTTGTCT CATTTAGTTA AACAAATAAT
10881 TAGCACTCTG ACTCCCCATT TGTCTGTTTT CAGTCTGGTG
GAGGCATTCA TGAATTTGCT GATTCTCAGT TTGGTATGTG
10961 CAAATCAAGT GAAACATTCT TTATAATTTG TTTTGGTCCT
CATTTTTTGAA AGATTGCTTG TTTATTTACA GGACATGTTT
11041 TTGCATATGG ACTCTCTAGA TCAGCAGCAA TAACGAACAT
GGCTCTTGCA TTAAGAGAGA TTCAAATTCG TGGAGAAATT
11121 CATTCAAATG TTGATTACAC AGTTGATCTC TTAAATGTAA
GAAGTGTTAA CCACCTTCTA AAGCCTCCTT TTATTTTTGT
11201 TGGTATTATA CTATCATTGT GTTTGTTTCT CCATTACACC
TAAACTCGTA GTGCTATTTT CCTATATTCA TTCAGGCTTC
11281 AGACTTCAGA GAAAACAAGA TTCATACTGG TTGGCTCGAT
ACCAGAATAG CTATGCGTGT TCAAGCCGAG AGGCCCCCAT
11361 GGTATATTTT AGTGGTTGGA GGAGCTCTAT ATGTAAGATG
ACGAAATAAC ACTACTCATG CTTGCACTTA TCTCAAGTTA
11441 CTGTGAAAAA GATACCAATG TTTGATCTAA TTTAAATCGT
TGTTATGTCC TGCAGAAAAC TGTAACCGCC AATGCAGCCA
11521 CTGTTTCTGA TTATGTTAGT TATCTCACCA AGGGCCAGAT
TCCACCAAAG GTATGTTTTT TAGGATACTC TGGATATTTT
11601 TTTAACAGGC GATTAGTAGC AAAGGTCAAA AGAGGTGTGG
GGTGTGTTTG GGTCTATGTA TGATTCTTTT CTTCTTGTAT
11681 CAATACAATG ATGCGCAGCT CTCCTGCGTG TTCGAGAAAA
AAAAATATTT CTTTAAGGTG AAGAATGATT GACCAATAAG
11761 TCTTATATGC AGCACATATC CCTTGTCAAC TCAACAGTAA
ATCTGAATAT CGAAGGGAGC AAATACACAG TAAGTGTGAC
11841 GTTCCATAAG AAAATCTATT TCAGTTACAA TAATGTTAGC
CATTTCTGAGT TTTGTCTGCA TTGTGTTGTA GATTGAACT
11921 GTAAGGACTG GACATGGTAG CTACAGATTG CGAATGAATG
ATTCAGCAAT TGAAGCGAAT GTACAATCTC TATGTGATGG
12001 TGGCCTCTTA ATGCAGGTAC CTTGTTCTTT CTTTTATGAT
TTATTAAAAC ATCTAATGCA TGCCTTCAAA GTTATGTCAC
12081 TGTCAGTTCT GATTGTTGAA CTGTAATGGC TTCAGCTGGA
TGGAATAGC CATGTAATTT ATGCGGAAGA AGAAGCTGGT
12161 GGTACACGAC TTCAGATTGA TGGAAAGACG TGCTTGTTAC
AGGTGCATAC TCTCTTTCTC CCTCTATATT GTTCTTGGTG

FIGURE 22A CONTINUED

12241 TCTGATTGGG AAGCTTCTGC AGTTCTGCTA GATTTGTCTA
TCATTTATTA CTGCATTTTG TCTGTCATCA CTAACCTATC
12321 TTTAAAAAAA AAATCATATT GTTTGCTAAC AGGATACATC
ATGTTAGAAA ATTTGACTAA TCCTTGTTGT GAAGTTACAT
12401 ACTTGATTCT AGTGACATTT AACTGCAATA CCTGACTTAA
AAAATTACTG TATCGATGGG CGGCTGAAAA TTGAGAAGAT
12481 GCCTTTTTTTA TGTAAGATTT TAGCTGTACT ATGCTATGCC
TCAAGTAGGC AATGACTGTG TTCTTGCAAG ATGATCATGA
12561 TCCATCAAAG TTATTAGCCG AGACACCCTG CAAACTTCTT
CGGTTCTTGG TTGCTGATGG TGCTCATGTT GATGCCGATG
12641 TACCATATGC GGAAGTTGAG GTTATGAAGA TGTGCATGCC
TCTCTTGTC CCTGCTTCTG GTGTCATTCA TGTTATGATG
12721 TCTGAGGGCC AGGCATTGCA GGTATATTC TTACATCTCT
GCTCCGTGCA TTGTGCTTGC ATCACATAAC CGTTGCATGT
12801 ATTTCTGAAC TTTTGTTCTG TTCTAGGCTG GTGATCTTAT
AGCAAGGCTG GATCTTGATG ACCCTTCTGC TGTGAAAAGA
12881 GCTGAACCAT TTGATGGAAT GTTCCACAA ACGGGCCTTC
CTGTTGCTGC CTCTAGTCAA GTACACAAAA GATATGCTGC
12961 AAGTTTGAAT GCTGCTCAA TGGTCCTTGC AGGATATGAG
CATAACATTA GCGAAGTAAA TATTCCATCT TATTGTGATT
13041 ATCTTTCATT TCTTTTCTTT GTTATCTTG TGTTTACTTA
TATTATGTTT TGTGTACTCC ATCCCAAATA GATTGCTATT
13121 CTAGGCTTTC TAGCTCTGTT CTAAATCCAA CCATCTTTAA
TTTTTACCAT GTTTATACAT AAAAGTACTA ATATTTATGA
13201 TGCCAAATAA GTATCACTAG ATTCATCATG ATATATATAT
TTGGGACAGA GAGAGTATGC TTTTGTGAGT TAAGGGTTAG
13281 CCTGGGTTCC TTTTCTAGTC CTGCTAACTT TTGGTTACAA
ACTTTGTATA ATCTCTGAAA AATTATAATG GCCAGCCCTA
13361 TGCTGATCAT GTCATGTGA GTGTAAGTGC AAATTTTGCT
ACATCAATCA TTTTCTTTCT TTCAACAGGT TTATCTTCTG
13441 GTTTCATAAT TTTCACTTGC ACTTCTTTCA TTTGAAGTCA
TTTATTTTGG TGTCTATCTC ATTAATTCCT TAGCATTTTT
13521 TTATCACATA TTGATTGATT CATTTTTAAC TCTGCTTCTT
TTCAGGTTGT ACAAGATCTG GTATGCTGTC TGGATGATCC
13601 CGAGCTTCCT TTCCTTCAGT GGGATGAACT TATGTCAGTT
CTAGCAACTA GGCTTCCAAG AAACCTTAAG ACTGAGGTAT
13681 GGGACAATTA CAACTTTACA AGATATATAC AAAAGATATA
GCCAATCTGG CTAAAGGAA AGATGATTCA TTTTACCAT
13761 TTAGATTATC TTAATTCTTC ATACTGGCTT ACGTTGATGA
CAGAAGTTTG CTATCACCAG AGTAAATTA TGATATTTTA
13841 TAACACTTGT TTGCACTGTG TTACTATGTG CTTTAAATTC
TGTAATTATT ATGTAAAATT TTTAAAATT AAAATTGTAT
13921 TCATGTGCTA AAATTCAAAG TATTTCAAGT TAGCATGTGA
CCAGATAGAA GCTGAATCTT TCAGTAAGTT TTGTTTTGAT

FIGURE 22A CONTINUED

14001 TTCTTGATTG TAGATCTTCT GGTATATCCT ATATCCTTTT
CATTAGCTCT TATATTTCTA TCTTTTTATT ATGCAGTTAG
14081 AGGATAAATA CAAGGAATAC AAGTTGAACT TTTACCGTGG
GGAAAACAAG GACTTCCCAT CCAAGCTGCT GAGAGACATC
14161 ATTGAGGTCA GTTTTAGATT TCTTGTGTGG TATTGCTTTT
TAAACTGTTT GCTAATTTTA ACTTTTTTTT GTTATTGTAG
14241 GCAAATCTTG CTTATGGTTC AGAGAAGGAA AAAGCTACGA
ATGAGAGGCT TGTTGAGCCT CTTATGAGCC TTCTCAAGTC
14321 GTATGAGGGT GGGAGAGAAA GCCATGCTCA TTTTGTGTGC
AAGTCCCTTT TTGAGGAGTA TCTTGCTGTG GAAGAACTTT
14401 TCAGTGATGG GATTGAGTT ACCAACATAT CCAAAGTAA
TACTGATGAG CACTAAAAAA GCACATAGTG TTCACTCCTT
14481 TCCATTCTCC TAGTTGGGAG CACATTTTAA CAAATGACGT
GTACATGTAG CTGAAAACTT TTGCATGGCT TCTGATGGAA
14561 TTCACTGGAT ACAATCTTAT TTACAATTTT TCTCTAATTG
TGTCTTGACA GTCTGATGTG ATTGAAACCC TGCATCATCA
14641 GCACAGTAAA GACCTGCAGA AGGTTGTAGA CATTGTATTG
TCTCACCAGG TAATTTTCTT CATGATCTGA TGTCATTATG
14721 CAAATGATCA CTGAACGATT TCTGTTATTG AAAGTGTGAT
TTTGTTCATA GGGTGTGAGG AACAAAGCTA AGCTTGTAAC
14801 AGCACTTATG GAGAAGCTGG TTTATCCAAA TCCTGCTGCT
TACAGGGATC TGCTGGTTCG CTTTTCTTCA CTCAATCATA
14881 AAAGATATTA TAAGGTGCAG TGACTTAAAA TAACCTAGAT
ATTCCTGTGA TGATTTTCTA TGATATTTTA TTTTAACTAA
14961 TATCATGCAT CTTAATAAAA ACAGTTGGCC CTTAAAGCAA
GCGAACTTCT TGAACAAACT AAATAAGTG AACTCCGTGC
15041 AAGCATCGCA AGAAGCCTTT CTGATCTGGG GATGCATAAG
GGAGAAATGA CTATTAAAGA TAGCATGGAA GATTTAGTCT
15121 CCGCCCCATT GCCTGTTGAA GATGCACTTA TTTCTTTGTT
TGATTACAGT GATCCAAGT TTCAGCAGAA AGTGATCGAG
15201 ACATATATAT CTCGATTGTA CCAGGTACTA TGTCAACTAA
CTTGATGTCT TTCATAGTCC CACTGAGCAC ATCTGGTATG
15281 TATATACTAA GAAATGCACT AACGACATGA GATGTTTCATC
TTTTCATTTT ACTAAATGTT GAGACATGGC ATACTGATGA
15361 TTGACTAAAA TTAATTGGGT TTGCAAAGTT TTGATTTACT
ATATGTATAG CAACTAGCAA GACATGCTGG CTAACCTGCA
15441 AATCATATTT TTCAGCCTCT TCTTGTGAAG GATAGCATCC
AAATGAAATT TAAGGAATCT GGTGCCTTTG CTTTATGGGA
15521 ATTTTCTGGA GGGCATCTTG ATACTAAAAA TGGACAAGGG
GCCGTTCTTG ACCGTAAGAG ATGGGGTGCC ATGGTTGTTC
15601 TCAAATCACT TGAATCTGCA CCAACAGCCA TTGTAGCTGC
CTTAAAGGAT TCGGCAAAGC ATGACAGCTC TGAGGGCAAC
15681 ATGATGCACA TTGCTTTATT GAGTGCTGAA AATGGAAATA
ATATCAGGTC TGTTTCATGT CAATATCAGG TTCAATGGAT

FIGURE 22A CONTINUED

15761 CTTTTGTTTG TGATCTGTGT AACTCTAACT GATCCATCTC
TTTCAGCAGT GATGATCAAG CTCAACATAG GATGGAAAAA
15841 CTTACCAAGA TACTCAATGA TACTAGTGTC GCAAATGATC
TCCGAGCTGC TGGCTTGAAG GCTATAAGTT GCATTGTTCA
15921 GAGAGATGAA GCACGCATGC CAATGCGCCA CTCATTCTGTC
TGGTCAGATG AAAAGTGTTG TTATGACGAA GAGCAGATTC
16001 TCCGGCATGT GGAGCCTCCC CTCTCTGCGC TTCTTGAATT
GGTCTGTTTA TCAACATTAT TGCATGTTGT TTTGCTACAT
16081 CCTGTTCTTA TGATTTTCGT GTTCTTCACT ATTTATAACT
TATTTTGCCT ATTATGAATA CAGGATAAGT TGAAAGTGAA
16161 AGGATACAAT GAAATGAAGT ATACTCCATC ACGTGATCGT
CAGTGGCATA TCTACACACT AAGAAATACT GAAAATCCCA
16241 AAATGTTGCA TAGGGTATTT TTCCGAACTA TTGTCAGGCA
ACCCAATGCA GGCAACAAGT TTACATCAGC CCATATTGGC
16321 GACACTGAAG TAGGAGGTCC CACAGAATCT TTGTCATTTA
CATCAAATAG CATCTTAAGG TCGTTGATGA CTGCTATTGA
16401 AGAATTAGAG CTTACGCGA TTAGGACTGG TCATTCTCAC
ATGTATTTGT GCATATTGAA AGAACAAAAG CTTCTTGATC
16481 TCATTCCCTT CTCAGGGTAA GTGTGCACAT AATCCTTTTT
TGGAAAGATT CATGGCTAGC CATGGTTGGC CTCCTCAACA
16561 AAGCTTTTCA TTTTAATCAG GAGCACAATT GTTGATGTTG
GCCAAGACGA AGCTACTGCC TGTTCACTTT TAAAATCAAT
16641 GGCTCTGAAG ATACATGAAC TTGTTGGTGC ACAGATGCAT
CATCTTTCTG TATGCCAGTG GGAGGTGAAA CTCAAGCTGG
16721 ACTGTGATGG CCCTGCCAGT GGCACCTGGA GAGTTGTAAC
TACAAATGTT ACTAGTCACA CGTGCATCGT TGATGTAAGT
16801 TGTCCCTACT GTTCTTTTAT TTTGCATTGC GCACATTAAA
ATATAAGTCA ATATGTGGTT ATATTGCAA CTATACCCCC
16881 ATTTAATTAT GTTCTGAAGC ACATAGCTCG TTTTATGGTT
TTAGATCTAC CGGGAAGTGG AAGATACAGA ATCGCAGAAG
16961 TTAGTATACC ATTCTGCTTC TTCATCCGCT GGTCCCTTGC
ATGGTGTGCG ACTGAACAAT CTGTATCAAC CTTTGAGTGT
17041 CATTGATCTA AAACGCTGCT CTGCTAGGAA CAACAGAACT
ACATATTGCT ATGATTTTCC ATTGGTGAGT TCTCTCTCTC
17121 TCTCTCTCTC TCTCTCTCTC TCTCTCTCTC TCTCTCTCTC
TCTCTCTCTC TCTCTCTCTC GTGTACTTCT GTATTATAGT
17201 TATTACGAAC CAAAGCTGAT AATTGCTAAA AAATTGTAGG
CATTTGAAAC TGCACTGCAG AAGTCATGGC AGTCCAATGG
17281 ATCCAGTGTT TCTGAAGGTA GCGGAAATAG TAAATCTTAC
GTGAAGGCAA CAGAGCTAGT GTTTGCTGAA AAACATGGGT
17361 CTTGGGGCAC TCCTATTATT CCTATGGAGC GTCCTGCTGG
GCTCAATGAC ATTGGCATGG TAGCTTGGAT CTTAGAGATG
17441 TCCACTCCTG AATTTCCAAA TGGCAGGCAG ATTATTGTTG
TAGCAAATGA TATTACTTTC AGAGCTGGAT CATTTGGCCC

FIGURE 22A CONTINUED

17521 AAGGGAAGAC GCATTTTTTG AAGCTGTCAC CAACCTGGCC
TGCGAGAGGA AGCTTCCTCT TATTTACTTG GCAGCAAACCT
17601 CTGGTGCTAG GATTGGCATT GCCGATGAAG TGAAATCTTG
CTTCCGTGTT GGGTGGTCTG ATGAAAGCAG CCCTGAACGT
17681 GGATTTTCAGT ACATTTATCT AACTGAAGAA GACTATGCTC
GTATTAGCTC TTCTGTTATA GCACATAAGC TGCAGCTGGA
17761 TAGCGGTGAA ATTAGGTGGA TTATTGACTC TGTTGTGGGC
AAGGAGGATG GGCTTGGTGT TGAGAATATA CATGGAAGTG
17841 CTGCTATTGC CAGTGCTTAT TCTAGGGCAT ACGAGGAGAC
ATTTACACTT ACATTTGTCA CTGGACGGAC TGTAGGGATA
17921 GGTGCTTATC TTGCTCGTCT TGGTATACGT TGCATACAAC
GTCTTGACCA GCCTATTATT TTAAGTGGGT TTTCTGCCCT
18001 GAACAAGCTT CTTGGGCGGG AAGTGTACAG CTCTCACATG
CAGTTGGGTG GTCCTAAGAT CATGGCAACC AATGGTGTG
18081 TCCACTTGAC TGTTTCAGAT GACCTTGAAG GTGTTTACAA
TATATTGAGG TGGCTCAGCT ATGTTCTGTC CAACATTGGT
18161 GGACCTCTTC CTATTACAAA ACCTTTGGAT CCACCAGATA
GACCTGTTGC ATACATCCCT GAGAACACAT GTGATCCGCG
18241 TGCGGCTATT CGTGGTATTG ATGACAGCCA AGGGAAATGG
TTGGGTGGTA TGTTTGACAA AGACAGCTTT GTGGAGACAT
18321 TCGAAGGATG GGCAAAAACA GTTGTTACTG GCAGAGCAAA
GCTTGGAGGA ATTCCTGTAG GTGTTATAGC TGTGGAGACA
18401 CAGACCATGA TGCAGCTTAT CCCAGCTGAT CCAGGCCAGC
TTGATTCTCA TGAGCGATCT GTTCCTCGTG CTGGACAAGT
18481 GTGGTTCCCA GATTCTGCAA CCAAGACTGC TCAGGCATTG
TTGGACTTCA ACCGTGAAGG ATTCCTCTG TTCATCCTGG
18561 CTAAGTGGAG AGGTTTCTCT GGTGGACAAA GAGATCTATT
TGAAGGAATT CTTAGGCTG GTCAACAAT TGTTGAGAAC
18641 CTTAGGACAT ATAATCAGCC TGCATTTGTC TACATTCCTA
TGGCTGGAGA GCTACGTGGT GGAGCTTGGG TTGTTGTTGA
18721 TAGCAAAATA AATCCAGACC GAATTGAGTG TTATGCTGAG
AGGACTGCGA AAGGCAATGT TCTTGAACCT CAAGGGTTAA
18801 TTGAAATCAA GTTCAGGTCA GAGGAACTCC AAGATTGTAT
GGGTAGGCTT GACCCAGAGT TAATAAATCT GAAAGCAAAA
18881 CTCCAAGGTG CAAAGCTTGG AAATGGAAGT CTAAGTGGACA
TAGAATCCCT TCAGAAGAGT ATAGAAGCTC GTACAAAACA
18961 GTTGTGTCCT TTATATACGC AGATTGCAAT ACGGTTTGCT
GAATTGCATG ATACTTCCCT CAGAATGGCA GCTAAAGGTG
19041 TGATTAAAAA AGTTGTTGAT TGGGAAGAAT CACGTTCTTT
CTTCTACAAA AGGCTACGGA GGAGGATCTC CGAAGATGTT
19121 CTTGCAAAAAG AAATAAGAGG AATAGCTGGT GACCACTTCA
CTCACCATC AGCAGTTGAG CTGATCAAGG AATGGTACTT
19201 GGCTTCTCAA GGCACAACAG GAAGCACTGA ATGGGATGAT
GATGATGCTT TTGTTGCCTG GAAGGACAAC CCTGAAAACCT

FIGURE 22A CONTINUED

19281 ACAAGGGATA TATCCAAAAG CTACGGGCTC AGAAAGTGTC
TCAGTCGCTC TCCAATCTTG CGGACTCCAG TTCAGATCTA
19361 GAAGCATTCT CCCAGGGTCT TTCTACACTA TTAGATAAGG
TAAGCTTGCT CTCTACTGAT TGTACCAGTA CCAATTATTA
19441 ATTGTGTTTA ACTTGGGTTC CACCTGGTGC TATCTGCTGC
ATCTATCTTC TTCAGAGTTC CTATTTTCGTT TGTATATTGC
19521 TAGACACTGC GTCTTGCCAA ATCATGGTTC TAATACATAC
AGCTATTTTG TGTAACATT TCCATCGTCT CACATGTTCC
19601 TTTGGATGCT CTTTCAGATG GATCCCTCTC AGAGAGCCAA
GTTGGTTCAG GAAGTCAAGA AGGTCCTTGG TTGATGAAAT
19681 GATAAGAACA CATCCAATAT AATGTGTATG CTACATGTTT
TTTGATGAAG TACATACATA GAAGGATATT GGTCAGCCTT
19761 GATTGATCAT TTCTGATCTG AATTGACCAT TTCTGATCCT
GTGGTTGATG TAAACGCAAA GCTTGGGGCA GCCGATTGAC
19841 AGTTAGCAAG GGCACAAGTG AATCTGTGCT CTAGTTTTGC
AGTGGTCGAG GAAGGCACAA AGTTGTTTCG CTGTAGTTCT
19921 GTAATGTAAC CAGGGTTTCA ATTCTGTAAT TTTAGGGTGT
ATCTTGGGGA TACTAGCAAA CAGTTGAGTG GTTCATTGAA
20001 TTTTGTACTT GAATAATATG TTTTGTAGGC ATGTGTACTC
TACGTGAAAT AAATGTGAAT TTGCTAGTGT AAGAACCGCC
20081 CAACTTGACA CTGCTTTAGT CATGATACTA GAAACCTGGC
GCGGCTTTGC CGTGCACCCT TCGTGGA

FIGURE 22B

Panicum virgatum plastidal ACCase NC053142.1 (SEQ ID NO: 968)

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1 MSQLGLAAAA SKVLPLLPNR QRSSAGTTFT SGSSRPSNRR
KSCTRSLRDG GDGVSDAKKH NQSVRQGLAG IIDLPNEATS
81 EVDISHGSED PRGPAESYQM NGIINEAHNG RHASVSKVVE
FCTALGGKTP IHSILVANNG MAAAKFMRSV RTWANDTFGS
161 EKAIQLIAMA TPEDMRINAE HIRIADQFVE VPGGTNNNNY
ANVQLIVEIA ERVGVSAVWP GWGHASENPE LPDALTAKGI
241 VFLGPPASSM NALGDKVGSA LIAQAAGVPT LSWSGSHVEV
PLECCLDAIP EEMYRKACVT TTEEAVASCQ VVGYPAMIKA
321 SWGGGGKGIR KVNNDDEVRA LFKQVQGEVP GSPIFIMRLA
SQSRHLEVQL LCDQYGNVAA LHSRDCSVQR RHQKIIIEGP
401 VTVAPRETVK ALEQAARRLA KAVGYVGAAT VEYLYSMETG
EYYFLELNPR LQVEHPVTEW IAEVNLPAAQ VAVGMGIPLW
481 QIPEIRRFYG MDYGGGYDLW RKTAALATPF NFDEVDSQWP
KGHCVAVRIT SEDPDDGFKP TGGKVKEISF KSKPNVWAYF
561 SVKSGGGIHE FADSQFGHVF AYGLSRSAAI TNMALALKEI
QIRGEIHSNV DYTVDLLNAS DFRENKIHTG WLDTRIAMRV
641 QAERPPWYIS VVGALYKTV TANAATVSDY VSYLTGQIP
PKHISLVNST VNLNIEGSKY TIETVRTGHG SYRLRMNDSA
721 IEANVQSLCD GLLMQLDGN SHVIYAEAAA GGTRLQIDGK
TCLLQNDHDP SKLLAETPCK LLRFLVADGA HVDADVPYAE
801 VEVMMCMPL LSPASGVIVH MMSEGQALQA GDLIARLDLD
DPSAVKRAEP FDGMFPQTGL PVAASSQVHK RYAASLNAAQ
881 MVLAGEYHNI SEVVQDLVCC LDDPELPFLQ WDELMSVLAT
RLPRNLKTEL EDKYKEYKLN FYRGENKDFP SKLLRDIIEA
961 NLAYGSEKEK ATNERLVEPL MSLLKSYEGG RESHAHFVVK
SLFEEYLAVE ELFSDDGIQSD VIETLRHQHS KDLQKVVDIV
1041 LSHQGVNRKA KLVTALMEKL VYPNPAAYRD LLVRFSSLNH
KRYYKLALKA SELLEQTKLS ELRASIARSL SDLGMHKGEM
1121 TIKDSMEDLV SAPLPVEDAL ISLFDYSDPT VQOKVIETYI
SRLYQPLLVK DSIQMKFKES GAFALWEFSG GHLDTKNGQG
1201 AVLDRKRWGA MVVLKSLESA PTAIVAALKD SAKHDSSEGN
MMHIALLSAE NGNNISSDDQ AQHRMEKLTG ILNDTSVAND
1281 LRAAGLKAI CIVQRDEARM PMRHSFVWSD EKCCYDEEQI
LRHVEPPLSA LLELDKLVK GYNEMKYTPS RDRQWHIYTL
1361 RNTENPKMLH RVFFRTIVRQ PNAGNKFTSA HIGDTEVGGP
TESLSFTSNS ILRSLMTAIE EELHAIRTG HSHMYLCILK
1441 EQKLLDLIPF SGSTIVDVGQ DEATACSLK SMALKIHELK
GAQMHHLSVC QWEVKLKLDC DGPASGTWRV VTTNVTSTHC
1521 IVDIYREVED TESQKLVIYS ASSSAGPLHG VALNNLYQPL
SVIDLKRCSA RNNRTTYCYD FPLAFETALQ KSWQSNNGSSV
1601 SEGSGNSKSY VKATELVFAE KHGSWGTPII PMERPAGLND
IGMVAWILEM STPEFPNGRQ IIVVANDITF RAGSFGPRED
```


FIGURE 22B CONTINUED

1681 AFFEAVTNLA CERKLPLIYL AANSGARIGI ADEVKSCFRV
GWSDESSPER GFQYIYLTEE DYARISSSVI AHKLQLDSGE
1761 IRWIIDSVVG KEDGLGVENI HGSAAIASAY SRAYEETFTL
TFVTGRTVGI GAYLARLGIR CIQRLDQPII LTGFSALNKL
1841 LGREYSSHM QLGGPKIMAT NGVVHLTVSD DLEGVYNILR
WLSYVPANIG GPLPITKPLD PPDRPVAYIP ENTCDPRAAI
1921 RGIDDSQGW LGGMFDKDSF VETFEGWAKT VVTGRAKLGG
IPVGVIAVET QTMMQLIPAD PGQLDSHERS VPRAGQVWFP
2001 DSATKTAQAL LDFNREGLPL FILANWRGFS GGQRDLFEGI
LQAGSTIVEN LRTYNQPAFV YIPMAGELRG GAWVVVDSKI
2081 NPDRIECYAE RTAKGNVLEP QGLIEIKFRS EELQDCMGRL
DPELINLKAK LQGA KLNGS LLDIESLQKS IEARTKQLLP
2161 LYTQIAIRFA ELHDTSLRMA AKGVIKKVVD WEESRSFFYK
RLRRRISEDV LAKEIRGIAG DHFTHQSAVE LIKEWYLASQ
2241 GTTGSTEWDD DDAFVAWKDN PENYKGYIQK LRAQKVSQSL
SNLADSSSDL EAFSQGLSTL LDKMDPSQRA KLVQEVKKVL
2321 G

FIGURE 23A

cDNA sequence of *Avena sativa* plastidal ACCase PepsiCoV2
chr4C (SEQ ID NO: 969)

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1  ACCCCCTCTC GGTCTCGGGA TATCCGCCCCG CCCGCGCTCG
CTCGCTCCAC TCTCCCCGCC CCCCTCCGGC ACCACGCCGC
81  CGCAAGATCC AAAGCCCAGC CGCGGCAGGA CGTCACTCTC
GAAGCACCCG CGCGCGTCGG CACGTCCGCC TCCCCGAGGT
161 GCGCGCCCTA CTCCGCTATT TATTTATGCC CTCCCCTCCC
CCGCCATTCC ACTGTCGCGC CCCAGATCCG CCGTCCGATC
241 TGCCTCCGCT CCCGAGGTG AGGACAGCCG CCACCGCTCC
TCTCATATGC TATTGCTGTG TTTTGTGCGC GCCGGGCCGG
321 GGCCGTTCTG CCGCGGCTTT CGTTCGTGGG GGTGGCGGGG
AGGGGTTTAA GGTACTGTG CTGCGCGGGA CCTGGGGTTA
401 GTGCGCTCTG TGTTTGAAAC TCGGCCGAGC TTGGGATTGG
ATTGTTGGGA GTCGCGGTG GCATGCTTAG GTAGTGGCGA
481 TAGTCAGGAG AATGCTGAAA TCGGGCTCGC CTA CTGTATC
AATGCGAGGT ACTAGTGATC ATGGCCGGT CGAAGGTGCC
561 CTGTGCCTAG CATTGTCTTT CTCAGGCTGG TTCCTCTGTG
CTTCCGTGGA ACATATCCAT GCTAAGCGCA AGCTGCCTGC
641 GATGGTACAC CATGGCAGTG CAGTAGACGA GGAGTGCCTG
GGTGCTGCCA ATGATAGGTT TATGTTCTTA GTTTCCTGTT
721 AGGAGGGTAT TAATGCTACC CACTGTAGTA TGACACTGAG
CTACCTACCT TGGTTTTTGG TAATAAAGTT TGGGTTTCCT
801 GTTTCATTGG AGAATTGCAT TCCTTGCCTA TTTTAGTCCA
GAGCATCTTG GATGTTTGAA CTTACCGAGA GAGGCCGTGA
881 ATTAATCCAT GAAGTTTCCT GTTGCCTCAC TCTATGGACT
AATGATTTCT GTGTGCATGC ATCTGTCAGG TTTCCATACC
961 TGGGGTTTAC GCACTCGGTT TATGGCACTG TGCATCTGAA
GAACACTGCA ACTGTGCTGT CTGTCCAGAG GGAGAACAAT
1041 GGGATCCACA CATTGCCCCA TTGTTGGATT TAATGCCTCC
ACAACACCAT CGCTATCCAC TCTTCGCCAG GTAAATTCAG
1121 CTGGTGCTGC ATTCCAATCT TCTGCCCCTT CAAGGACCTC
CAAGAAGAAA AGTCGACGTG TTAAGTCAAT AAGGGATGAT
1201 GGCGATGGAG GCGTGTGAGA CCCTGCAGGG CATAATAAGT
CTATTCGCCA AGGTAACCCG AGGACCATCT CTTTCTAAT
1281 TTGTGGTCAA TCTCAGACCT GCATAGAAAA TTTGCTTGAC
CGAGAGCATG CTTATTTTAG TGTAAGATAT CCAATAGTG
1361 TTATCACAAA ATGATAGATA GGATATAGAT CACTACAGCA
ATCTTCATAG ATTCTTATGC CCAAGTTGAC ATGCTGAGCT
1441 GTCTGATGTC TCCGCATTGA GATTCACGAA TGAATTGGGA
AAATCAAGAT TAGATCAGAT AGCTAGCACA ATCGACTTAG
1521 ACATAATAAA ATCTCTGTCA ACTTAGGTGT AGATGGACTC
TATTTTAATA TTCAATATGA TGTTTCCTCA AGGGAAAGTG
1601 GACACGAAAA TACATGTATT ATACTGCAAT TTAAGTACAC
ATGACTGAAT GTTTTGATTA TAATAGGTCT GGAAAAGTAT
```

FIGURE 23A CONTINUED

1681 AGAAAGATTT TCTGATGAAT TTAGTTGCAC AAATAACAAT
AACATCAAAA AGTTGGGAAA CCACTGCTTC TTCTTAACTA
1761 TTGTGTAGGC TTGCTCAGTT TCCAATGCAT ATCTGGATGT
AGGTCTCGCT GGCATCATCG ACCTCCCCAAA GGAAGGTGCA
1841 TCAGCTCCAG AAGTGGACAT TTCACAGTAA GTACTTCAGC
ACACTTTATA GTTTAGTTCT GATAGAACAG TGAAAGATGT
1921 ATAACGCATT TGTAATTCCT GGATTTCACT TGTCTTATTA
TGGGTACACT TAAATGTTGA AGTTGGAATT TCGTTATTAT
2001 CTTAGATTAC ACTTCTATAC ATCATAGTTA TACACTATGC
ACCTGCTGTG AGTTCTGGAA ATTGAACCTT TGTCATGTGG
2081 CGCACTTTAA TCTGTAAGGT TTTATTTTTG ATATAGTATA
GTTATAAATC ATGTGCAATC TCTCCCGTCT ATACCATTAT
2161 TTATGTAAGA TATAATCCAT ATTTGGTGTG ATTTCTCTTT
ACAAGTTGTG AAAGTTGTGT TCACTTTGT AAAGGGAAAT
2241 ATCCCCCAAC ATATATTTAC CTGTTCTAGT GGTTACAGCC
CAGGCACATG GCTGTTGCCT TGCATGGAGT TTTATTGGGC
2321 ACTTAAAAAC ATTTTCATGGG AAAGACTTTC ATATAAGTAT
TGTTTAAATT TAATTGCCAA CTGAAACCCG TACCCGAATG
2401 ACAAGATGAA AAAGCCCACC TGTGTTTCTG ATTCATACTA
GGCAATACTA TGTCATGTGT TATGGGACCA CAGTAATGAC
2481 GTTGCTCTTT CTTTTATAGT GGGCCGGAAG ACCACATGGG
CTCCTACCAA ATGAATGGGA TACTGAATGA ATCACATAAC
2561 GGGAGGCACG CCTCTCTGTC CAAGGTTGTT GAATTTTGTA
TGGCATTGGG TGGA AAAACA CCAATTCACA GTGTATTAGT
2641 CGCCAACAAT GGAATGGCAG CGGCTAAGTT CATGCGGAGT
GTCCGGACAT GGGCTAATGA TACATTTGGG TCAGAGAAGG
2721 CGATTCAGTT GATAGCTATG GCAACTCCGG AAGACATGAG
AATAAACGCA GAGCACATTA GAATTGCTGA TCAATTTGTT
2801 GAAGTACCTG GCGGAACAAA CAATAACAAC TATGCAAATG
TCCAATCAT AGTTGAGGTC AGTACTGATC ATCCCTTGAT
2881 GTGCAATTTA TGTATGAGTT CCTCTTTGTT CTTTTAGCAT
GACATGGCAA CTTCACTTTT GCAGATAGCA GAGAGAACAG
2961 GTGTTTCTGC CGTTTGGCCT GGTGGGGCC ATGCATCTGA
GAATCCTGAA CTTCCAGATG CACTAACTGC AAAAGGAATT
3041 GTTTTTCTTG GGCCACCAGC ATCATCAATG AACGCACTAG
GTGACAAGGT TGGTTCAGCT CTCATTGCTC AAGCAGCAGG
3121 GGTTCCCTACT CTTGCTTGGA GTGGATCACA TGTAAGCCTC
ACATTCTCTG TGATAACTCG TCGCCTGATA TTTGTAGTGG
3201 ATGCATTTTA TAACATGATG GCACTTTATT ATAGGTGGAA
ATTCCATTAG AACTTTGTTT GGAATCGATA CCTGAGGAGA
3281 TGTATAGGAA AGCTTGTGTT ACTACCGCAG ATGAAGCAGT
TGCAAGTTGT CAGATGATTG GTTATCCTGC CATGATCAAG
3361 GCATCCTGGG GTGGTGGTGG TAAAGGGATT AGAAAGGTAC
ATTATTCATT TGATTGGACT GTACTTGAGT TCTGTGCGCA

FIGURE 23A CONTINUED

3441 GTGTTAGCCC TAACCCTTTT TAACATATTA TTAAC TAGAT
ATCTCTTGCA GGTAAATAAT GATGATGAGG TTAAAGCACT
3521 GTTTAAGCAA GTACAGGGTG AAGTTCCTGG CTCCCCAATA
TTTATCATGA GACTTGCATC TCAGGTTAGA CTTCTGGAAT
3601 TTCTGTTTTT TAAGCATGCT GTTTCTGAAT TGTATATTGT
ATGTCTGGAA GCTTCATTTG CCTCTTCCTT GCAGGCTAGA
3681 ATTGTATTGT GTAATCTGTA CTCAATGGTA ATTTTCATTT
TAATCCCTCT CCTCTTTCCT TTTGTAGAGT CGACATCTTG
3761 AAGTCCAGCT GCTTTGTGAT CAATATGGCA ATGTAGCAGC
ACTTCACAGT CGTGATTGCA GTGTGCAACG ACGACACCAA
3841 AAGGTATGCT GCTCCAGATT GAAATCATTG CTTTCATTTG
TGGTCTGCTT ACCTGAAAGT TTGATCAAAT GGTTCAACTG
3921 GGTCCATTTT GTTTTGTTTA TAACAGATAA TTGAGGAAGG
ACCAGTTACT GTTGCTCCTC GTGAGACGGT GAAAGAGCTA
4001 GAGCAAGCAG CAAGGAGGCT TGCTAAGGCT GTGGGTTATG
TTGGTGCTGC TACTGTTGAA TATCTCTACA GCATGGAGAC
4081 TGGCGAATAC TATTTTCTGG AGCTTAATCC ACGGTTGCAG
GTTTGTTTCT TTGAACACTC TTCAGGACTT ATATTTTGTT
4161 GGCAGTCGTT TATATCGTTA AATGTTCTAC ATTCAGGTTG
AGCACCCCGT CACTGAGTGG ATAGCTGAAG TCAATTTGCC
4241 TGCAGCTCAA GTTGCAGTTG GAATGGGTAT ACCCCTTTGG
CAGGTTCCAG GTAATAATAA TATCATCGTA AATTTACAGT
4321 TTCTGTCCCA TGATATTTCT GTATCTAACT ATCTTCTTAT
ACAGAGATCC GACGTTTCTA CGGAATGGAC AATGGAGGTG
4401 GCTATGACAT TTGGAGGAAA ACAGCAGCTC TTGCTACTCC
ATTCAACTTT GATGAAGTAG ATTCTCAATG GCCAAAGGGG
4481 CATTGTGTAG CAGTTCGGAT AACTAGTGAA AATCCAGATG
ATGGATTCAA GCCTACTGGT GGAAAAGTAA AGGTGAGATT
4561 TCTTAATGTG ATATCTATGT TTCAAGCACA CTAGGGTTAG
TAAACTAACC TGATCTTAAT TTTTTCGTGT ATTTCAGGAG
4641 ATAAGTTTTA AAAGTAAGCC AAATGTCTGG GGATATTTCT
CAGTTAAGGT AAGCTGTTCA TAGCTCTGTT GCAGTGTCAT
4721 GTTCCGAGTT TCCACAGAAA ATTGGTCTGC AAGACTTTTT
ATTCGAACCA GTATTCTCAG TTGGGTTTTG ACTAAGTATT
4801 GATCCAATCA ACAAATGTTT TCTCCCCCTT CATCTGTTTT
CAGTCTGGTG GAGGCATTCA TGAATTTGCG GATTCTCAGT
4881 TTGGTATGTA AAATTTGACC CAGTGAATAT TCCTCTTTCG
TTTTTGATT TCCTTACAGT GAAATTGCTC CTTTCATTGC
4961 AGGACATGTT TTTGCCTATG GGGTGA CTAG ATCAGCAGCA
ATAACCAACA TGTCTCTTGC ATTAAAAGAG ATTCAAATTC
5041 GCGGAGAAAAT TCATACAAAT GTTGATTACA CGGTTGATCT
CTTGAATGTA AGTAATAGTA ACTTGTTGAA TCCTACTTTT
5121 GATGTAATAC AACCATTTTA CATCCGGCTT TCCTTCAAAA
TAATCCCATG CTGTGTTTCC TGTATCATTA ATTCAGGCCC

FIGURE 23A CONTINUED

5201 CAGACTTCAG GGAAAACACG ATTCATACTG GCTGGCTGGA
TACCAGAATA GCTATGCGTG TTCAAGCTGA GAGGCCTCCC
5281 TGGTATATTT CAGTGGTTGG AGGAGCTCTA TATGTAAGAT
AAAGAACTA TGTTAATGTT ACTGCAACTT TTGGTAACCC
5361 AATTACGGAA AACACAATA TAGTGTTTAA TTGAAATCAT
TGTTTTGTGC TGTAGAAAAC AATAACCACC AACGCGGACA
5441 CCGTTTCTGA ATATGTTAGC TATCTCATCA AGGGTCAGAT
TCCACCAAAG GTAGTTTCTT ACTGGGCTTA AACTCTGTAT
5521 ATTGCTTGAA GGTGAACATT GTTGACCATT GTTTTTGTGC
AGCACATATC CCTTGTTTAT TCAACTATTT CTTTGAATAT
5601 AGAGGAAAGC AAATATACAG TAAGTGTGAC ATTCCTTAAA
GAAAGACTCT CAGTTATAAT GAAATGATAG CTATTACTGA
5681 TGCTCATGTA CACCATGTCA CAGATTGAGA TTGTGAGGAG
TGGACAGGGT AGCTACAGAT TGAGAATGAA TGGTTCACCT
5761 ATTGAAGCAA ATGTACAAAC ATTATGTGAC GGTGGCCTTT
TAATGCAGGT ACCTTCTTTC TTTTATACTT GCACATAAAT
5841 ATAATTCAAG TTTGTAAAGT ACTTCTGAAA GAGTTCTGAT
TCCTTAGTTC TAATGTCTCC AGCTGGATGG AAACAGCCAT
5921 GTTATTTATG CTGAAGAAGA AGCGGGTGGT ACACGGCTTC
TTATTGATGG AAAGACATGC TTGTTACAGG TAAGGTTTTT
6001 TTTATTTGTT CCTTTATTCA TAATGTTAGT GTCTAATGAC
AGGACTTTGT ATTCCTATTC GTGATACTGC ATTCACCTTT
6081 TGACCATTAG CACTTCATTT TGAAAAGAAA AGATAAGTCG
GTATTATGAA CTAATGGTTG GTACAACATG ATGTTTTTTCG
6161 AGATCTATTC TGTGTCAAAA TGTAAGGTC ACTGCTTAAG
CAGCCAGACA CACCAGGTGA TATTAACTT TACCGAGAGC
6241 AGGTCTTGTG ATTTATAAAG ACAAGTTACA TAACTGCAAT
GTTCTGTTAT ATTGCTTCTG ATTCTCAAAT CTAGTTATAC
6321 CAACGACACT GTATTTTTTAA TAATCACTAA TTTATCATAA
TAAGATGCAA AAAAAGTTAG AAGGTGTCCT ACTCCTACAA
6401 CACTGTCACG TCTGATCAAA TCATCTTTGT GATATAAAAG
AACAGTTGAA TACTTTTATG TTTTCTTGC ACCAATACGT
6481 TATGATTCTT GATCATGCTG CATTGTATCC TCAACTAAAT
AAATGACAAA TCGTTTTGCA GAATGATCAT GATCCGTCOA
6561 GGTTATTAGC TGAGACACCC TGCAAACTTC TTCGTTTCTT
GATTGCCGAT GGTGCTCATG TTGATGCTGA TGTACCATAT
6641 GCGGAAGTTG AGGTTATGAA GATGTGCATG CCCCTCTTGT
CTCCTGCTGC TGGTGTCAAT AATGTTTTGT TGTCTGAGGG
6721 CCAGGCGATG CAGGTTATAT TGCTGCACTT TCATTTCTTC
GGCTGTTAAT AACCATTGCA TGTGAAGCAT CTGAACTTAA
6801 TATTCTTTTC AGGCTGGTGA TCTTATAGCA AGACTTGATC
TCGATGACCC TTCAGCTGTG AAGAGAGCTG AACCATTAGA
6881 AGGATCTTTT CCAGAACTGA GCCTTCCTAT TGCTGCTTCT
GGCCAAGTTC ACAAAGATG TGCTGCAAGT TTGAATGCTG

FIGURE 23A CONTINUED

6961 CTCGAATGGT CCTTGCAGGA TATGACCATG CAGTCAACAA
AGTAAACATC AAGACCCCTA CAGCAACTAT GTTCTATTA
7041 TTTTGTCTCA TGTTTCCTTT TTTTCTCAA TACCATTTAT
TATTATTACG AATTCTGGAT TATTCTTAGT TCCTCATTGG
7121 CATTTTCTGC CTTTGTCTAC CAAATGGTTT CTAATGTCGA
GAAGTTCTTG GTGCTTGTCT TTGCAAATCT TGATTTTAAT
7201 GCTTTTCTCT TATGTTTACC ATACTCACTG ATGATATAGG
CCCTATTTAT CCTTGTGATA TTTTTTCTC CCTGTAAATC
7281 ATGATAGAGA TGCTCTTCT CTTATGTTCA TCATGCTCAG
TATTTTTTAT TATATAGATC GTATTTTCC TTGTGCTATT
7361 TTTCTTTCTT TCAGTAACTG ATGTTTACAG ATCAAACCTT
GTACCTTGTT GTAATTTATA GTCTAAGATC AGCATTTGAT
7441 TACCTTTTCC ATTGTACTGG GCTTCTTTTT TAGGTTGTAC
AAGATTTGGT ATGGTGCCTA GATACACCTG AGCTTCCTTT
7521 CCTACAATGG GAAGAGCTTA TGTCTGTTTT AGCAACTAGA
CTTCCAAGAC GTCTTAAGAG TGAGGTATGT GATAATTGAT
7601 ATGATATGCA GAATCTGGCA TGAAGAGATG TTGATACATT
TAATTTATGA TATACTCCCT CCGTTCCAAA TTATAAGTTG
7681 TTTTAGCTAT TTCATTATGG TCTACTACAT ACGGACCAAA
ATGAGTGAAC CTACACACTA AAAGGTGTCT AGATACATGC
7761 ATTTTTCAGA AAAAAGCTAA AACATCTTAT AATTTGAAAC
GGAGGGACTA TATAGAAGGT TCTTGGCCCT GAACTAAAAG
7841 ATCATGTCAC TTAATAAGAT TTACATTGTT CAATCACCTT
GGTTATTTTC CTCAACTTAT TATGCAACTT TTAGCTTTAT
7921 TCTAATAATG TAATCAAAAT TCAGAATATT TCACTTCAAT
TCTTCGTAGC ATGAAACATG TGGTACTCTG TCTCATTTAT
8001 TTGCACTGTA CGTTGTTTAT TGATCTTCTG CCTCAACCGT
TTCTAATTTTC TATGCATCCA GTTGGAGGGT AAATACAGTG
8081 AATATAAGTT AAATGTTGAC CATGTGAAGA TCAAGGATTT
CCCCACCGAC ATGCTTAGAA AGACAATTGA GGTCAGTTTT
8161 TGGTTTCTTA TGGTACCCCA GTATAAGTCG TACTACTTTT
TGTAACAAGT TTTCTTTTAG GAAAATCTTG CATATGTTTC
8241 TGAGAAGGAA ATGGTGACAA TTGAGAGGCT TGTTGATCCT
CTGATGAGTC TACTGAAGTC ATATGAGGGT GGGAGAGAAA
8321 GCCATGCCCA CTTTATTGTC AAGTCCCTTT TCGAGGAGTA
TCTCTCGGTT GAGGAACTAT TCAGTGATGG CATTGAGGTT
8401 ATCTTACATT TCAAACTAA GCAGATCTAC TAGTTCATTT
TAAGGGTCAT TCTTTTCCCT TCTTTTAGTT TTGAACATGT
8481 ACGAATTGAT GCCACACACA TGTATAGAT TGCATCAGAA
CCTGTTGGGT AATTAAGTAG CAAATAAATT GTACATGGCT
8561 TAAGACTTAT TTCCTTCAA AACTTTTCA CTAATCGTTT
TCCTCAAAT ATGCCATTTT GTAGTCCGAT GTGATTGAAC
8641 GCCTGCGCCT ACAATATAGT AAAGACCTCC AGAAGGTTGT
AGACATTGTT TTGTCTCACC AGGTAAATTA CTTTTTGGCC

FIGURE 23A CONTINUED

8721 TAATGACTTG GCGCAAGTGA TCACTGACGC AATCTTCGTC
ACTGATTGTT TGATTTTGTG CTAGGGTGTG AGAAGCAAAA
8801 CCAAGCTGAT ACTCACGCTC ATGGAGAAAC TGGTCTATCC
AAACCCTGCT GCCTATAGGG ATCAGCTGAT TCGCTTTTCT
8881 TCCCTCAACC ATAAAAGATA TTACAAGGTA GCAGTGGTGA
CCTAAAATAA TGGAAGCTTT TTGAATAATT CTGTTGTGAT
8961 ATCTTAGGCT AATGAATTAA TTTCATTGTA ATAACGCAGC
TGGCCCTTAA AGCTAGTGAA CTTCTCGAAC AAACCAAGCT
9041 CAGTGAAGTC CGCACAAGCA TTGTAAGGAA CCTTTCAGCG
CTGGAGATGT TTAAGTGAAGA AAGGGCAGGT TTCTCGTTGC
9121 AAGAGAAGAA ATTGCCATT AATGAGAGCA TGGGAGATTT
AGTCAGTGCC CCACTGCCAG TTGAAGATGC ACTTATTTCT
9201 TTGTTTGATT GTATTGATCA AACTCTTCAG CAGAGAGTGA
TCGAGACGTA CATATCTCGA TTATACCAGG TATGTTTTGG
9281 ATTTTATCAT ACTCAACATT TCTGGAATCA TACACTAAAG
TTCCTAATGA AATAAGATGC TCAGAGTTTG TTTAAAACAA
9361 ATTATAAATA ATCTAGGTGT GGGAACATTT GATTTAGAAC
TTCTTGTTGA CATGTTACTG ATCTGTAAGT TGGCTAACTT
9441 GCCAATGATA TTTTCAGCCT CAACTTGTGA AGGATAGTAT
CCAGCTGAAA TATCAGGATT CTGCTGTTAT CGCTTTATGG
9521 GAATTCAACG AAGGGCATCC TGATAATAGA TTGGGTGCTA
TGGTTATCCT GAAGTCTCTA GAATCTGTGT CAACAGCAAT
9601 TGGAGCTGCT CTAAAGGATA GATCACATTA TGCAAGCTCT
GCGGGTAACA CAGTGCATAT TGTTTTGTTG GATGCTGATA
9681 CTCAGACAAA TGCAACTGAA GATAGGTATG TTCATGTGCA
GTATTAGTGC CAATGGCTTA TTTGGTGCAA TTCTTAAAT
9761 AAGTTAACCT ATTTGACTAT TTCTTTCAGT GGTGATAACG
ACCAAGCTCA AGACAGGATG GACAACTTT CTGTAATACT
9841 GAAACAAGAT ATTGTCACGG CTGATCTACG TGCTGCTGGT
ATCAAGGTTA TTAGTTGCAT TGTTCAAAGA GATGGAGCAC
9921 TCATGCCTAT GCGCCGTACC TTCCTCTTGT CTGAAGAAAA
GCTTTGTTAT GAGGAAGAGC CGATTCTTCG GCATGTGGAG
10001 CCTCCACTTT CTGCACTTCT TGAGTTGGTA TGTAAGTCGA
TCAAAGTAC TGCACGCTGT CTTGATGCAC TTTAATGCTT
10081 TCATTTTATT ATTTGCTAGT TGTATTTATT TAGCCTGCTG
TGGATACAGG ATAAATTGAA AGTGAAAGGA TACAATGAGA
10161 TGAAGTATAC ACCGTCACGT GATCGTCAGT GGCATATATA
CACGCTTAGA AATACTGAAA ACCCCAAAAT GTTGACACAGG
10241 GTATTTTCC GAACTCTTGT CAGACAGCCG AGTGCTGGCA
ACAGGTTTAT GTCAGGCCAT ATCAATGATG TTGAAGTAGG
10321 ACATGCTGAG GAATCTCTTT CATTTACATC AAGCAGCATA
TTAAGATCTT TGATGACTGC TATAGAAGAA TTGGAGCTTC
10401 ACGCGATTAG GACTGGTCAT TCTCATATGT ACTTGTGCAT
ATTGAAAGAG CAAAAGCTTC TTGACCTTGT TCCTGTTTCA

FIGURE 23A CONTINUED

10481 GGGTAAGCCT GCACATCGTT ATTTTGTGCG AACATATATG
CCTTGCTCTT GTGTTTCGCC ATCTCAACGA GCTTTTCATC
10561 TTACTCAGGA ACACAGTTGT GGATGTTGGC CAAGATGAAG
CTACTGCGTG CTCTCTTATG AAAGAAATGG CTCTAAAGAT
10641 ACATGAACTT GTTGGTGCAA GAATGCATCA TCTTTCTGTA
TGCCAGTGGG AAGTGAACT TAAGTTGGAC AGTGATGGAC
10721 CTGCCAGTGG TAGCTGGAGA GTTGTAACAA CCAATGTCAC
TAGTCACACC TGCACGTGG ATGTAAGTTT TATCCCTTTG
10801 CATCTTGTTT TTCTGTATGA AACTAGTGAA ACTAAAGTGA
ACATATGACA AATATACATG GAGCTATCAT CTTATTTAGT
10881 TTGTTGTCAT TTCCACCTCA TTTAGACATT TACGTCTGAA
GCTCATGGTG CTTTTACTAT TTTAGATCT ACCGGGAGGT
10961 CGAAGATACA GATTCACAGA AGCTAGTATA CCACTATGCT
GCATCGTCAC CTGGTCCTTT GCATGGTGTC ACATTGAGTA
11041 ATTCATACCA GCCTTTGAGC GTTATTGATC TAAAACGATG
CTCTGCCAGG AACAACAGAA CTACATACTG CTACGATTTT
11121 CCATTGGTTA GTATCTATCT CTCTGTATTA TGTCTTCTGT
TAGCAGATTC CTATTGGTCT TGCATGTCCT CCTAAACTG
11201 ATAAGAACTC AAAAATGTAG GCATTTGAAA CTGCAGTGCG
GAAGTCATGG GCTAACGTTT CTAGTGAAAA CAACCAATGT
11281 TATGTTAAAG CAACAGAGCT GGTGTTTGCT GACAAGAATG
GGTCGTGGG CACTCCTATA GTTCCTATGC AGCGTGCTGC
11361 TGGGCTCAAT GACATCGGTA TGGTTGCGTG GATCTTGAC
ATGTCCACTC CTGAATTTCC CAGTGGCAGA CAGATTATTG
11441 TTATCGCAA TGATATTACT TTTAGAGCTG GATCATTTGG
CCCAAGGGAA GATGCATTTT TTGAAGCTGT TACCAACCTG
11521 GCTTGTGAGA GAAAGCTTCC TCTTATCTAC ATGGCAGCAA
ACTCTGGTGC TCGGATTGGC ATTGCTGATG AAGTAAAATC
11601 TTGCTTCCGT GTTGAATGGG TTGATCCTGC CAACCCTGAA
CGTGGATTTA AGTACATTTA TCTGAATGAA GAAGACTATG
11681 GTCGTATTAG CTCTTCTGTT ATAGCGCACA AGACTCAGCT
AGATAGTGGC GAAATAAGGT GGGTTATCGA TTCTGTTGTG
11761 GGCAAGGAGG ATGGACTAGG TGTGGAGAAC ATACATGGAA
GTGCTGCTAT TGCCAGTGCT TATTCTAGGG CATACGAGGA
11841 GACATTTACA CTTACATTTG TGAGTGGTCG AACGGTTGGA
ATAGGAGCCT ATCTTGCTCG GCTTGGCATA CGGTGCATAC
11921 AGCGTATTGA CCAGCCCATT ATCTTAACTG GGTTTTCTGC
CCTGAACAAG CTTCTCGGGC GGAAGTGTA CAGCTCCAC
12001 ATGCAGTTGG GTGGTCCCAA AATCATGGCT ACAAATGGTG
TTGTCCATCT GACTGTTCCA GATGACCTTG AAGGTGTTTC
12081 TAATATATTG AGGTGGCTCA GTTATGTTCC TGCTAACATT
GGTGGACCTC TTCCTATTAC AAAATCTTTA GACCCAATAG
12161 ACAGACCTGT TGCATACATC CCTGAGAATA CATGTGATCC
TCGTGCAGCC ATCAGTGGCA TTGATGACAG CCAAGGGAAA

FIGURE 23A CONTINUED

12241 TGGTTGGGTG GTATGTTTGA CAAAGACAGT TTTGTGGAGA
CATTTGAAGG ATGGGCAAAG ACAGTAGTTA CTGGCAGAGC
12321 AAAACTTGGA GGGATTCCTG TGGGTGTTAT AGCTGTGGAG
ACACAGACCA TGATGCAGCT GGTCCCTGCA GATCCAGGCC
12401 AGCCTGATTC CCATGAGCGG TCTGTTCCCTC GTGCAGGGCA
AGTCTGGTTT CCAGATTCAG CTACCAAGAC AGCGCAGGCA
12481 ATGTTGGACT TCAACCGTGA AGGATTACCT CTGTTTCATCC
TTGCTAACTG GAGAGGCTTC TCTGGTGGGC AAAGAGACCT
12561 TTTTGAAGGA ATTCTGCAGG CTGGATCAAC AATTGTTGAG
AACCTTAGGA CATACAATCA GCCTGCCTTT GTATATATCC
12641 CCAAGGCTGC AGAGCTGCGT GGAGGGGCTT GGGTCGTGAT
TGATAGCAAG ATAAATCCAG ATCGCATTGA GTGCTATGCT
12721 GAGACGACTG CAAAAGGCAA TGTTCGAG CCTCAAGGGT
TGATTGAGAT CAAGTTCAGG TCAGAGGACC TCCAAGATTG
12801 CATGGATAGG CTTGATCCAG AATTGGTAAA TCTGAAAGCA
AAACTCCAGG GAGCAAAGCA TGAAAATGGA AGTCTATCTG
12881 ATGGAGAATC CCTTCAGAAG AGCATAGAAG CTCGAAAGAA
ACAGTTGCTT CCTTTGTACA CTCAAATTGC GGTAAGGTTT
12961 GCGGAATTGC ATGACACTTC CCTCAGAATG CTTGCTAAAG
GCGTGATTAG GAAAGTTGTA GACTGGGAAG AATCTCGGTC
13041 TTTCTTCTAT AAGAGATTAC GGAGGAGGAT ATCTGAGGAC
GTTCTTGCAA AGGAGATTAG AGGTGTAATT GGTGAGAAGT
13121 TTTCTCACAA ATCAGCAGTC GAGTTGATCA AGAAATGGTA
CATGGCTTCT GAGGCAGCTG AAGCAGGAAG CACTGACTGG
13201 GATGATGACG ATGCTTTTGT CGCCTGGAGG GAGAACCCTG
AAAATATGA GGAGCATATC AAAGAGCTTA GGGCTCAAAG
13281 GGTATCTCAG TTGCTCTCAG ATGTTGCAGG CTCCAGTTCG
GATTTAGAAG CCTTGCCGCA GGGTCTTTCC ATGCTACTAG
13361 AGAAGGTACG CATACTTACA GTTTTACCTG CATCTGTTTT
ATTTGCAAGT TTCTAAAATG TTGCTATCTT CATATATACA
13441 CTTAGTATAT AACCAAACAG CGCTGCTATC TTTTTCATCT
ATCGTATCAT ACCAAATAAT GTCTGAGACA CTTCTCTTTG
13521 GACACTTGTT CAGATGGATC CCTCTAGGAG AGCAGAGTTT
ATTGAGGAAG TCAAGAAGGT CCTTAAATGA TCAAATGATA
13601 GCAACACATC CAATACAGAG TGCATGATAT CTGTTTCTCT
TGAAGTACAT ATATAGAAGG ATAATAGCTA ATATGGGCCA
13681 ACCATTGTTT TTGTAAACTT GTTGGTGGTC TATGTCATTC
AAGGCACAAC TTGCTTTTGG ACCCAAGCCT GGTGAGGAG
13761 TGTAAGTGGA TGTGTTAGTT CTGGTGCCTG AGAAGAATAG
GGGCAACTGG GTAACCTACC GTTGGCGAGA GAGCTGGTGA
13841 TCTAGAGTTC TTGTTCTGTG GTGGTACTGT TTCCCCGGTG
CTGTAGTTCT GTGATGTACT ATCTCCTGTT CGATGCTGTA
13921 ATTCTAGTCT TGGAATGTGA TTGAGATGTC CATTCAATTT
TGAACATGAA TAATATGTTT TGTAGGCCTC ATGTGTACCG
14001 GTATGTGGAA TAAATGTTTCG TTGTGTTAGC ATTG

FIGURE 23B

Avena sativa plastidal ACCase PepsiCoV2 chr4C (SEQ ID NO: 970)

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1  MGSTHLPIVG FNASTTPSLS TLRQVNSAGA AFQSSAPSRT
SKKKSRRVKS IRDDGDGGVS DPAGHNKSIR QGLAGIIDLP
81  KEGASAPEVD ISHGPEDHMG SYQMNGILNE SHNGRHASLS
KVVEFCMALG GKTPIHSVLV ANNGMAAAKF MRSVRTWAND
161  TFGSEKAIQL IAMATPEDMR INAEHIRIAD QFVEVPGGTN
NNNYANVQLI VEIAERTGVS AVWPGWGHAS ENPELPDALT
241  AKGIVFLGPP ASSMNALGDK VGSALIAQAA GVPTLAWSGS
HVEIPLELCL DSIPEEMYRK ACVTTADEAV ASCQMIGYPA
321  MIKASWGGGG KGIRKVNND EVKALFKQVQ GEVPGSPIFI
MRLASQSRHL EVQLLCDQYG NVAALHSRDC SVQRRHQKII
401  EEGPVTVAPR ETVKELEQAA RRLAKAVGYV GAATVEYLYS
METGEYYFLE LNPRLQVEHP VTEWIAEVNL PAAQVAVGMG
481  IPLWQVPEIR RFGMDNGGG YDIWRKTAAL ATPFNFDEVD
SQWPKGHCVA VRITSENPDD GFKPTGGKVK EISFKSKPNV
561  WGYFSVKSGG GIHEFADSQF GHVFAYGVTR SAAITNMSLA
LKEIQIRGEI HTNVDYTVDL LNAPDFRENT IHTGWLDTRI
641  AMRVQAERPP WYISVVGAL YKTITTNADT VSEYVSYLIK
GQIPPKHISL VHSTISLNIE ESKYTIEIVR SGQGSYRLRM
721  NGSLIEANVQ TLCDGGLLMQ LDGNSHVIYA EEEAGGTRLL
IDGKTCLLQN DHDP SRLAE TPCKLLRFLI ADGAHV DADV
801  PYAEVEVMKM CMPLLSPAAG VINVLLSEGQ AMQAGDLIAR
LDLDDPSAVK RAEPLSGSFP ELSLPAAASG QVHKRCAASL
881  NAARMVLAGY DHAVNKVVQD LVWCLDTPEL PFLQWEELMS
VLATRLPRRL KSELEGKYSE YKLNVDHVKI KDFPTDMLRK
961  TIEENLAYVS EKEMVTIERL VDPLMSLLKS YEGGRESHAH
FIVKSLFEFY LSVEELFSDG IQSDVIERLR LQYSKDLQKV
1041  VDIVLSHQGV RSKTKLILTL MEKLVYPNPA AYRDQLIRFS
SLNHKRYYYKL ALKASELLEQ TKLSELRTSI VRNLSALEMF
1121  TEERAGFSLQ EKKLAINESM GDLVSAPLPV EDALISLFDC
IDQTLQQRVI ETYISRLYQP QLVKDSIQLK YQDSAVIALW
1201  EFNEGHPDNR LGAMVILKSL ESVSTAIGAA LKDRSHYASS
AGNTVHIVLL DADTQTNATE DSGDNDQAQD RMDKLSVILK
1281  QDIVTADLRA AGIKVISCIV QRDGALMPMR RTFLLSEEKL
CYEEEPILRH VEPPLSALLE LDKLKVKGYN EMKYTPSRDR
1361  QWHIYTLRNT ENPKMLHRVF FRTLVRQPSA GNRFMMSGHIN
DVEVGHAES LSFTSSSILR SLMTAIEELE LHAIRTGHSH
1441  MYLCILKEQK LLDLVPVSGN TVVDVGQDEA TACSLMKEMA
LKIHELVGAR MHHLSVCQWE VKLKLSDGP ASGSWRVVT
1521  NVTSHCTVD IYREVEDTDS QKLVYHYAAS SPGPLHGVTL
SNSYQPLSVI DLKRCSARNN RTTYCYDFPL AFETA VRKSW
1601  ANVSSENQC YVKATELVFA DKNWSWGTPI VPMQRAAGLN
DIGMVAWILD MSTPEFPSGR QIIVIANDIT FRAGSFGPRE
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FIGURE 23B CONTINUED

1681 DAFFEAVTNL ACERKLPLIY MAANSGARIG IADEVKSCFR
VEWVDPANPE RGFKYIYLNE EDYGRISSSV IAHKTQLDSG
1761 EIRWVIDSVV GKEDGLGVEN IHGSAAIASA YSRAYEETFT
LTFVSGRTVG IGAYLARLGI RCIQRIDQPI ILTGFSALNK
1841 LLGREVYSSH MQLGGPKIMA TNGVVHLTVP DDLEGVSNIL
RWLSYVPANI GGPLPITKSL DPIDRPVAYI PENTCDPRAA
1921 ISGIDDSQ GK WLGGMFDKDS FVETFE GWAK TVVTGRAKLG
GIPVGVIAVE TQTMQLVPA DPGQPD SHER SVPRAGQVWF
2001 PDSATKTAQA MLDFNREGLP LFI LANWRGF SGGQRDLFEG
ILQAGSTIVE NLR TYNQPAF VYIPKAAELR GGAWVIDSK
2081 INPDRIECYA ETTAKGNVLE PQGLIEIKFR SEDLQDCMDR
LDPELVNLKA KLQGA KHENG SLSDGESLQK SIEARKKQLL
2161 PLYTQIAVRF AELHDTSLRM LAKGVIRKVV DWEESRSFFY
KRLRRRISED VLAKEIRGVI GEKFSHKSAV ELIKKWYMAS
2241 EAAEAGSTDW DDDDAFVAWR ENPENYEEHI KELRAQRVSQ
LLSDVAGSSS DLEALPQGLS MLEKMDPSR RAEFIEEVKK
2321 VLK

FIGURE 24A

cDNA sequence of *Avena sativa* plastidal ACCase PepsiCoV2
chr5D (SEQ ID NO: 971)

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1 AGAGTCCAGC AGGCAGCATC GGCGCCGTCC GCGCGGTCCA
GCTGGATCCG ATCTCGGCCG TCCGTACGCG CGCGCGGGCC
81 CCCGCTCTCG CCCTCGCGCT GGCGGAGTCC CCGAAGCCGA
TACGTGACGG AATTTATTAT TTTAGGCCGC ACAGCCCCCA
161 TCTCTCCGTC CCTCTCTACC CCCTCTCGGG ATATCCGCCC
GCCCAGCCTC GCTCCACTCG CCCCGCCCCC TCCGGCACCA
241 CGCCGCCGCA AGATCCAAAG CCCAGCCGCG GCAGGACGTC
ACTCTCGAAG CACCCGCCGC GCGTCGGCAC GTCCGCCTCC
321 CCGAGGTGCG CGTCCTACTC CGCTATCTAT TTATGCCCTC
CCCATCTCCG CCATTCCACT GTCGCGCCCC AGATCCGCCG
401 CCCGATCTGC CTCCGCTCCC GGAGGTGAGA CCAGCTGCCC
GCCGCGCCG CCCTTCTTCT GCTCTTGCTT TGTTTCCGTG
481 CGCGCTGGGC CGGGGTGGTT CGTCCGGGGC TTCGTTCTGT
GCGTGGGGGT TGGCGAGGAG GGTTTAAGGG TACTGTGCTG
561 CGCGGGACCT GGGGTTAGTG CGCTCTGTGT TTGAAACTCG
CCCGAGCTTG GGATTGGATT GTTCGGAGCG AGCTCGCGAT
641 GCCATGCTTA GGTAGTAGCC ATAGTCAGGA GAATGCTGAA
ATGCGGCTTG CCTACTGTAT CAATGCGAGG TAGTGATCAT
721 TGGCCGGCCG AAGGTGCCCT GTCCTGTGCC TGCCTAGCAT
TCGTTTTCTC AGGCTGGGTT CCCCCTTCT TCTGATTGGA
801 ACGTATTCAT GCTAAGTGCA ACCTGCCTGC GACGTTACAC
CATCCGGTGA TGTGGTCAGT CAATGCTACC TACTGTGATA
881 TTGCGCTGCG AATGTTAGGT GCATGTTCTT AGTTTCCTGT
TAGCGGCGTA TTAATGCTAC CTACTGTAGT AGTATGCCAC
961 TAAGAATGTA GACGCTACCT ACCTTGTTTT TTGGTAATAA
AGTTTGGGTT TCCTGTTTCA TTGGAGAATT GCATTGCTTG
1041 CCTATTTTAG CCTTAGAGTA TCTTGATGT TTCAACTTAC
ATTTACTGAG AGGTAGCGAA TTTAATCCAT CAAGTTCTTG
1121 TTGCATGTCT CTATGGACTA ATGATTTCTA TGCGCATGCA
TCTGTCAGGT TTCCGTACCT GGGGTTTACA CACTCGGTTT
1201 ATGGCACTGT GCATTTGAAG AACACTGCAA CTGTGCTGTC
TGTCCAAAGG GAGGAGAATG GGATCCACAC ATTTGCCCAT
1281 TGTTGGCTTT AATGCCTCCA CAACACCATC GCTATCCACT
CTTCGCCAGG TAAATTCAGC TGGTGCTGCA TTCCAATCTT
1361 CTGCCCCCTC AAGGACCTCC AAGAAGAAAA GTCGCCGTGT
TAAGTCAATA AGGGATGATG GCGATGGAGG CGTGTGAGAC
1441 CCTGCAGGGC ATAACAAGTC TGTCGCCAA GGTAACCCGA
GGACCATCTC CTTTCTATTT TGTGGTCAAT CTCAGACCTG
1521 CATAGCTTAT TTGCTTGACC GAGAGCATGC TTATTTTACT
GTAAGATATC CCGATACTGT TATCACAAAA TGATACTCCC
1601 TCTGACCCAA ATTAGTTGAC TTGGATTTGT CTAGATTCTGA
TTGTATCTAG ACATGATTTA GTATTAGATA CAAATTTGAG
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FIGURE 24A CONTINUED

1681 TCAATAATTT GGGTCGGAGG GAGTAGATAG GATACAGATT
ACTGCAGCAA TCTTGATAGA TTCTTATGCC CAAGTCGACA
1761 TGCTGAGCTG CCTGATGTCT CCGCATTGAG ATCCACGAAG
AAATTGGGAA AATCAAGATT TGATCAGATA GCTAGCACCA
1841 TCAACTTGGA CATAATAAAA TCTCTGTCAA CTTAGGTGTG
GATGAACTCT ATTTTTTATA TTCAGTATGA TGTTTTCTGA
1921 AGGGAAAAGT GACACAGAAA TACATGTACG CTGCAATTTA
AGTACGTATG ACTGAATGTT TTGATTATAT AATAGGTCTG
2001 GAAAAGTAGG ATGTCTAGAA AGATTTTCTG ATGAATTTAG
TTGCACAAAT AACAATGACA TCCATAAGTT GGCAAGCCAC
2081 TGCTTCTCCT TAGCTATTGT GTAGGCTTGC TCAGTTTCCA
ATGCATATAT GGATGTAGGT CTCGCTGGCA TCATCGATCT
2161 CCCAAAGGAG GGCGCATCAG CTCCAGAAGT CGACATTTCA
CAGTAAGTAC CTCAGCACAC TTACATTATA GCTTAGTTCT
2241 CTTGATAGAA CAGTGAAAGA TGTATAGTGC ATTTGTAATT
CCTAGATTTC ACTTGTATTA TTATGGGTAC GCTGAAATGT
2321 TGAAGTTGGA ATTTCTTAT TCTCTTAGAT TACACTTCTA
TACATCATAG TTATACACTG TGCACCTGCT GTGAGTTCCG
2401 GAAATTGAAC CTTTGTCTATG TGGCTGCAAT CTGTAAGGTT
TTATTTTTGA TATAGTATAG TTATAAATCA TGTGTAATCT
2481 CTCCCGTCTA TAACATTATT ATGTAAGATA TAAGCCATAG
TAATGCTATA TGGTGTGATT TCTCTATACA AGTTATGAAA
2561 CTTGTGGTCA ACTTTGGAAA GGGAGATATC CCCCACACA
TGTTTACCTG TTCTTAGTGG TTACAGCCCA GGCACATGGC
2641 TGTTGCCTTG CATGGAGTAT TATTGGACAC TTCAAAACAT
TTCATGGGAA AGACTTCTTC ATATAAGTAT TGTTTAAAT
2721 TTAATTGCCA ACTGAAACCC GTACCCAAAT GACAAGATGA
AAAGCCCACT TTCATACTAG GCAATACTAT GTCATATGTG
2801 TTATGGGACC ACAGTAATGA CGTTGTTCTT TCTTTTATAG
TGGGTCTGAA GACCACATGG GTCCTACCA AATGAACGGG
2881 ATACTGAATG AATCACATAA CGGGAGGCAT GCCTCTCTGT
CCAAGGTTGT TGAATTTTGT ATGGCATTGG GTGGGAAAAC
2961 ACCAATTAC AGTGTATTAG TTGCCAACAA TGGAATGGCA
GCCGCTAAGT TCATGCGGAG TGTCCGGACA TGGGCTAATG
3041 ATACATTTGG GTCAGAGAAG GCAATTCAAT TGATAGCTAT
GGCAACTCCG GAAGACATGA GAATAAACGC AGAGCACATT
3121 AGAATTGCTG ATCAATTTGT TGAAGTACCT GGTGGAACAA
ACAATAACAA CTATGCAAAT GTCCAACTCA TAGTTGAGGT
3201 CAGTACTGGT CATCCCTTGA TGTGCAATTT ATGTATGAGT
TCCTTTTTGT TCTTTTAGCA TGACATGGCA ACTTCACTTC
3281 TGCAGATAGC AGAGAGAACA GGTGTTTCTG CCGTTTGCC
TGGTTGGGGC CATGCATCTG AGAATCCTGA ACTTCCAGAT
3361 GCACTAACTG CAAAAGGGAT TGTTTTTCTT GGGCCACCAG
CATCATCAAT GAACGCACTA GGTGACAAGG TTGGTTCAGC

FIGURE 24A CONTINUED

3441 TCTCATTGCT CAAGCAGCAG GGGTTCCTAC TCTTGCTTGG
AGTGGATCAC ATGTAAGCCT CACATTCTCA CTTATAACTT
3521 GTCGCCTGAT ATTTGTAGTG AATGCATTTT ATAACATACT
GGCACTTTAT TATAGGTGGA AATTCCATTA GAACTTTGTT
3601 TGGACTCGAT ACCTGAGGAG ATGTATAGAA AAGCTTGTGT
TACTACCGCG GATGAAGCAG TTGCAAGTTG TCAGATGATT
3681 GGTTATCCTG CCATGATCAA GGCATCCTGG GGTGGTGGTG
GTAAAGGGAT TAGAAAGGTA CATTATTCAT TTGATTGGAC
3761 TGTACTCGAG AGATTGTGTG GGCTGTGATA TTCTGTGCGC
ATTGTTTTAGC CCTAACCCCTT TTTAACATAT TAACTAGATA
3841 TCTCTTGCAG GTTAATAATG ACGATGAGGT TAAAGCACTG
TTTAAGCAAG TACAGGGTGA AGTTCCTGGC TCCCCAATAT
3921 TTATCATGAG ACTTGCATCT CAGGTTAGAC TTCTCTGGAA
TTTCAGTTTT CAAAGCATGC TGTTTCTGAA TTGTATATTG
4001 TACGTCTGGA AGCTTCATTT GCCTCTTCCT TGCAGGCTAG
AATTGTATTC TGTAATCTGT ACTCAATGGT AATTTTCATT
4081 TAGTCCCTCT CCCCTTTCCT TTTGTAGAGT CGGCATCTTG
AAGTCCAGCT GCTTTGTGAT CAATATGGCA ATGTAGCAGC
4161 ACTTCACAGT CGTGATTGCA GTGTGCAACG ACGACACCAA
AAGGTATGCT GCTCCAGATT GAAACCATTG CTTTCATTTG
4241 GGGTCTGCTT ACACCTGAAG ATTTGATCAA ATGGTTCAAC
TGGGTCCATT TTGTTTTGTT TATAACAGAT AATTGAAGAA
4321 GGACCAGTTA CTGTTGCTCC TCGTGAGACG GTGAAAGAGC
TAGAGCAAGC AGCAAGGAGG CTTGCTAAGG CTGTGGGCTA
4401 TGTTGGTGCT GCTACTGTTG AATATCTCTA CAGCATGGAG
ACTGGTGAAT ACTATTTTCT GGAGCTTAAT CCACGGTTGC
4481 AGGTTTGTTT TTTTGAACAC TCTTCAGGAC TTATATTTTG
TTGGCAGTCG TTTATATTGT TAAATGTTCT ACATTCAGGT
4561 TGAGCACCCA GTCAGTGTG GGATAGCTGA AGTAAATTTG
CCTGCAGCTC AAGTTGCAGT TGGAATGGGT ATACCCCTTT
4641 GGCAGGTTCC AGGTAATAAT AATATCATCA TAAATTTTCA
GTTTCTGTCT CATGCTATTT CTGTGTCTAA CTATCTTCTT
4721 GTACAGAGAT CCGACGTTTC TACGGAATGG ACAATGGAGG
TGGCTATGAC ATTTGGAGGA AAACAGCAGC TCTTGCTACT
4801 CCATTCAACT TTGATGAAGT AGATTCTCAA TGGCCGAAGG
GTCATTGTGT AGCAGTTAGG ATAAC TAGTG AGAATCCAGA
4881 TGATGGATTC AAGCCTACTG GTGGAAAAGT AAAGGTGGGA
TTTCTTAATG TGATATCTAT GTTTCAAGCA CACTAGGGTT
4961 AGTAAACTGA CATGATCTTG ATTTTTTCGT GTATTTTCAGG
AGATAAGTTT TAAAAGTAAG CCAAATGTCT GGGGATATTT
5041 CTCAGTTAAG GTAAGCTGTT CATAGCTCTG TTGCAGTGTC
ATGTTCCGAG TTTCCGAAGA ACATTGGTCT GCCAAGACTT
5121 TTTATTTTCGA ATCAGTATTC TCAGTTGGGT TTTGACTAAG
TATTGATCCA ATGAACTAAT GTTTTCTCCC CCTTCATATG

FIGURE 24A CONTINUED

5201 TTTTCAGTCT GGTGGAGGCA TTCATGAATT TGCGGATTCT
CAGTTTGGTA TGTAAGTTT GACCCAGTGA ATATTCTTGT
5281 TTGCTTTTTG TATTCCTTA CAGTGAAATT GTCCTTTCA
TTGCAGGACA TGTTTTTGCC TATGGGGTGA CTAGATCAGC
5361 AGCAATAACC AACATGTCTC TTGCATTAAA AGAGATTCAA
ATTCGCGGAG AAATTCATAC AACGTTGAT TACACTGTTG
5441 ATCTCTTGAA TGTAAGTAAT AGTAACATGT TGAATCCCAC
TTTTGATGTA ATACAACCAT TTTACGTCCG GCTTTCCTTC
5521 AAAGTAATCC CATGCTGTGT TTCCTGTATC TTAAATTCAG
GCCCCAGACT TCAGAGAGAA CACGATTCAT ACTGGCTGGC
5601 TGGATACCAG AATAGCTATG CGTGTTCAAG CTGAGAGGCC
TCCCTGGTAT ATTTCAAGTG TTGGAGGAGC TCTATATGTA
5681 AGATAAAGAA ACTATGTAA TGTTACTGCA ACTTTTGATA
AGCCAGTTGT GGAAAACACA GCTAGTGTTT AATTGAAATC
5761 ATTGTTTTGT GCTGTAGAAA ACAATAACCA CCAACGCAGA
CACCGTTTCT GAATATGTTA GCTATCTCAT CAAGGGTCAG
5841 ATTCCACCAA AGGTAGTTTC TTACTGGGCT TAAACTCTGT
ATATTGCTTG AAGGTGAACA TTGTTGACCA TTGTTTTTGT
5921 GCAGCATATA TCCCTTGTTT ATTCGACTAT TTCTTTGAAT
ATAGAGGAAA GCAATATAC AGTAAGTGTG ACATTCCTTA
6001 AAGAAAGACT CTCAGTTATA ATGAAATGAT AGCTATTGCT
GATGCTCATG TACACCATGC CACAGATTGA GATTGTGAGG
6081 AGTGGACAGG GTAGCTACAG ATTGAGAATG AATGGATCAC
TTATTGAAGC AAATGTACAA ACATTATGTG ATGGTGGCCT
6161 TTTAATGCAG GTACCTTCTT TCTTTTATAC TTGCACATAA
ATATAATTTA ATTTTGTAAG GTACTGCTGA AAGAGTTCTG
6241 ATTCCTTAGT TCTGATGTCT CCAGCTGGAT GGAAACAGCC
ATGTTATTTA TGCTGAAGAA GAAGCGGGTG GTACACGGCT
6321 TCTTATTGAC GGAAAGACAT GCTTGTTACA GGTAAGAATA
TTTTGTTTAT TTGTTCCCTT ATTTATAATA ATGTTAGTGT
6401 TTGATGATAG GACTTCGTAT TCTTATTTGT GATACTGCAT
TCACCTTTTG ACCATTAGCA CATCATTTTG AAAAGAAAAG
6481 ATAAATTGGT ATTGTGAACT AATGGATGGT ACAACATGAT
GTTTTTCGAG ATCTATTCTG TGTCGAAATG TAAAGGTGAT
6561 ATTTAATTTT ACCGAGAGCA GGTCTTGTGA TGTATAAGGA
CAAGTTACAT AGCTGCAATG TTCTGTTATA TACTTATATT
6641 GCTTCTTCTG TTTCTCAAAT CTAGTTATTA CAACGACACT
GTATTTTTTA TAATCACTAA TAAGGCGCAA AAAAAGTTAG
6721 AAGGTGTCCT TCTCCTACAA AACTATGTCA CGCCTGATCA
AATCACTTTG TGATACAAAA GAACAGTTGA ATACTTTATG
6801 TTTTCTTGC ACCAATACTT TATGATTCTT GATCATGCTG
CATTGTATCC TCAACTAAAT AAATGACAAA TTGTTTTGCA
6881 GAATGATCAT GATCCGTCAA GGTATTAGC TGAGACACCC
TGCAAACCTC TTCGCTTCTT GATTGCCGAT GGTGCTCATG

FIGURE 24A CONTINUED

6961 TTGATGCTGA TGTACCATAT GCGGAAGTTG AGGTTATGAA
GATGTGCATG CCCCTCTTGT CGCCTGCTGC TGGTGTCAAT
7041 AATGTTTTGT TGTCTGAGGG CCAGGCGATG CAGGTTATAT
TGCTGCACTT TCATATCTTC TGCTGTAAAT AACCATTGCA
7121 TGTGAAGCAT CTGAACTTAA TATTCATTTT AGGCTGGTGA
TCTTATAGCG AGACTTGATC TCGATGACCC TTCAGCTGTG
7201 AAGAGAGCTG AACCATTCTGA AGGATCTTTT CCAGAACTGA
GCCTTCCTAT TGCTGCTTCT GGCCAAGTTC ACAAAGATG
7281 TGCTGCAAGT TTGAATGCTG CTCGAATGGT CCTTGCAGGA
TATGATCATG CGGTCAACAA AGTAAACATC ATGACCCCTA
7361 CAGTAACTAT ATTTCTATTA TTTTGTCTCA TGTTTCCTTT
TTTCTCAAAT ACCATTTATT ATTATTACGA ATTCTGGAGT
7441 ATTCTTAGTT CCTTATTGGC ATTTTCTGCC TTTTGTCTACC
AAATGGTTTC TAATATAGAG AAGTTCTTGG TGTTTGTCTT
7521 CGCAAATCTT GATTTTAATG CTTTCTCTTT ATGTTTCATCA
TACCTGCTGA TGATATAGGC TGTATTTATC CTTTGTCTAT
7601 TTTTCTCTCC CAGTAAATCA TGATAGAGAT GCTCTTCCTC
AAATGTTTCAT CATGCTCAGT ATTTATTATA TACTCCCTCC
7681 GTTTCAAAAT ATAAGATGTT TTAGCTTTGT GAAAGGAGTG
TATCTAGACC AGTTTGTAGTA TGTAGGTTCA CTCCAAACCT
7761 ACATGAACCT ACACACTAAA AGGGGTCTAG ATACACTCCT
TTCACAAAGC TAAACATCT TATATTTTGA AACGAAGGGA
7841 GTAGATTGTA TTTTCTCTTG TGCTATGTTT CTTTCTTTCA
GTAAGTATG TTTACAGATC AAACCTTGTA CTTTGTGTA
7921 ATTTATAGTC TAAGCTTAGC ATTTGATTAC CTTTTCATT
GTACTGGGCT TCTTTTTCAG GTTGTAACAAG ATTTGGTATG
8001 GTGCCTAGAT ACACCTGAGC TCCCTTTCCT ACAATGGGAA
GAGCTTATGT CTGTTTTCAG AACTAGACTT CCAAGACGTC
8081 TTAAAAGTGA GGTATGTGAT AATTGATATG ATACGCAGAA
TCTGGCATAA AGAGACGTTG ATACATTTAA TTTATGATAT
8161 ACTCCCTTCG TTCCAAATTA TAAGATGTTT TAGATATTTT
ATTATGGTCT ACATGCGGAC CGAAATGAGT GAACCTACAC
8241 ACTAAAAGGT GTCTAGATAC AGCGTTTCAG CAAAAATCTA
AAACATCTTA TAATTTGAAA TGGATGTAGC ATGTCACCTA
8321 TCAGATTTAC ATTCTACATT GTTCAATCAC CTTAGTTATT
TGCTCAACT TATTGTGCAA CTTTGTAGATT TATTCTAATA
8401 ATGTAATGAA AATTCAGAAT CTTTCACTTC AATTCTTCGT
AACATGAAAC ATTTGGTACT CTGTCTCATT TATTTGCACT
8481 GTATGTTGTT TTAGTTGGCT TGCCATTCTA ACTGAATCTT
TAAAGAAGTT CTTATTTGTT TTTAACCAG TTCTTGTGTTA
8561 TTGATCTTTT ATACCTTGTG TTCTGCCTCA ACCGTTCCCTA
ATTTTTATGC ATCCAGCTGG AGGGTAAATA CAGTGAATAT
8641 AAGTCAAATG TTGACCATGT GAAGATCAAG GATTTCCCCA
CCGAGATGCT TAGAGAGACA ATGAGGTCA GTTTTGGTT

FIGURE 24A CONTINUED

8721 TCTTATGGCA TCCCAGTCTA AGTCGTACTA CTTTTTGTAA
CAAGTTTTCT TTTAGGAAAA TCTTGCGTAT GTTTCTGAGA
8801 AGGAAATGGC AACAAATTGAG AGGCTTGTTG ACCCTCTGAT
GAGTCTACTG AAGTCATATG AGGGTGGGAG AGAAAGCCAT
8881 GCCCACTTTA TTGTCAAGTC CCTGTTTCGAG GAGTATCTCT
CGGTTGAGGA ACTATTCAGT GATGGCATTG AGGTTATCTT
8961 ACATTTCAAA ACTGAGCAGA TCAACTAGAT TCATTTTAAG
GGTCATTCTT TTCCCTTCTT TTAGTTATGA CCATGTATGA
9041 ATTGATGCCA CACACAAATT ATAGATTGCA TCAGAACCTC
TTTGGAATT AAGTAGCAAA TAATTTGTAC ATGGCTTAAG
9121 ACTTATTTCC TCCAGAACAT TTTTCACTCA TTGTTTTCTT
CAAAATGTGC CATTTTGTAG TCTGACGTGA TTGAACGCCT
9201 GCGCCTACAA TATAGTAAAG ACCTCCAGAA GGTTGTAGAC
ATTGTTTTGT CTCACCAGGT AAATTACTTT TTGGCCTAAT
9281 GACTTGGTGC AAGTGATCAC TGAAGCAATA TTAGTTACTG
ATGGTTTGAT TTTGTTCTAG GGTGTGAGAA GCAAACTAA
9361 GCTGATACTC ACGCTCATGG AGAACTGGT CTATCCAAAC
CCTGCTGCCT ACAGGGATCA GTTGATTCGC TTTTCTTCCC
9441 TCAACCATAA AAGATATTAC AAGGTGGCAG TGGTGACCTA
AAATAATGGA AGCTTTTTGA ATAATTCTGT TGTGATATCT
9521 TAGGCCAACG AATTAATTTT ATTGTTATAA TGCAGCTGGC
CCTTAAAGCT AGTGAACCTC TCGAACAAAC CAAGCTCAGT
9601 GAACTCCGCA CAAGCATTGC AAGGAACCTT TCAGCACTGG
AGATGTTTAC TGAAGAAAGG GCAGGTTTCT CTTGCAAGA
9681 GAAGAAATTT GCCATTAATG AGAGCATGGG AGATTTAGTC
AGTGCCCCAC TGCCAGTTGA AGATGCACTT ATTTCTTTGT
9761 TTGATTGTAT TGATCAGACT CTTGAGCAGA GAGTGATCGA
GACGTACATA TCTCGATTAT ACCAGGTATG TTTTGGATTT
9841 TATCATACTC AGCATTTCTG GAAGCATACA CTAAAGTTCC
TAATGAAATA AGATGCTCAG TGTTTCTTTA CAATAAATTA
9921 TAAATAATCT AGGCGTGTGA AGATTTGATT TAGAACTTCT
TG TAGACATG CTGCTGCTCT GTAAGTTGTC TAACTTGCCA
10001 ATGCTATTTT CAGCCTCAAC TTGTGAAGGA TAGTATCCAG
CTGAAATATC AGGATTCTGC TGTTATCGCT TTATGGGAAT
10081 TCAATGAAGG GCATCCTGAG AATAGATTGG GTGCTATGGT
TATCCTGAAG TCTCTAGAAT CTGTGTCAAC AGCCATTGGA
10161 GCTGCTCTAA AGGATAGATC ACATTATGCA AGCTCTGCGG
GTAACACAGT GCATATTGCT TTGTTGGATG CTGATACTCA
10241 GACGTATACA GCTGAAGATA GGTATGTTCA TGTGCAGTAT
TAGTGCCAAT GAGCTTATTT GGTGCATTTT TAAAATAAG
10321 TTAACCTATT TCTTTCAGTG GTGATAATGA CCAAGCTCAA
GACAGGATGG ACAAACTTTC TGTAATACTC AAACAAGATA
10401 TTGTCACGTC TGATCTACGT GCTGCTGGTG TCAAGGTTAT
TAGTTGCATT GTTCAAAGGG ATGGAGCACT CATGCCTATG

FIGURE 24A CONTINUED

10481 CGCCGTACCT TCCTCTTGTC TGAGGAAAAT CTTTGTTATG
AGGAAGAGCC GATTCTTCGG CATGTGGAGC CTCCACTTTC
10561 TGCCCTTCTT GAGTTGGTAT GTAACGAT CAAACTGACT
GCATGCTGTC CTGATGCACT TCAATGCTTT CATTTTATTA
10641 CTTGCTACTT GTATTTATGT AGCCTTCTGT GGATACAGGA
TAAATTGAAA GTGAAAGGAT ACAATGAGAT GAAGTATACA
10721 CCGTCACGTG ATCGTCAGTG GCATATATAC AACTTTAGAA
ATACTGAAAA CCCCCAAATG TTGCACAGGG TATTTTTCCG
10801 AACTCTTGTC AGACAACCCA GTGCTGGCAG CAAGTTTATG
TCAGGCCATG TCAATGATGT TGAAGTAGGA CATGCTGAGG
10881 AATCTCTTTC ATTTACATCA AGCAGCATAT TAAGATCGTT
GATGACTGCT ATAGAAGAAT TGGAGCTTCA CGCGATTAGG
10961 ACTGGTCATT CTCATATGTA CCTGTGCATA CTGAAAGAGC
AAAAGCTTCT TGACCTTGTT CCTGTATCAG GGTAAGTGGG
11041 CACATCGTTC TTTTGTGCGA ACATATATTC CTTGCTCTTG
TGTTTCGCCT TCTCAACGAG CTTTTCATCT TACTCAGGAA
11121 CACAGTTGTG GATGTTGGCC AAGATGAAGC TACTGCGTGC
TCTCTTATGA AAGAAATGGC TCTAAAGATA CATGAACTTG
11201 TTGGCGTAAG AATGCATCAT CTTTCTGTAT GCCAGTGGGA
AGTGAACTT AAGTTGGACA GCGATGGACC TGCCAGTGGT
11281 AGCTGGAGAG TTGTAACAAC CAATGTCACCT AGTCGCACCT
GCACTGTGGA TGTAAGTTTT ATCCCCTTGC ATCTTGTTTC
11361 TCTGTGTGGA ACTAGTGAAA CTAAAGTGAA CAACATATGC
CACATATACA TAGAACTATC ATCTTATTTA GTTTGTTGTC
11441 ATTTCCACCT CATTAGACA TTTAGGTCTG AAGCTCATGG
TGCTTTTCCT GTTTTATAGAT CTACCGGGAG GTCGAAGGTA
11521 CAGAATCACA GAAACTAGTA TACCACTCTG CCCCATCATC
TTCTGGTCCT TTGCATGGTG TCGCACTGAG TAATTCATAT
11601 CAGCCTTTGA GCGTTATTGA TCTAAAACGA TGCTCTGCCA
GGAACAACAG AACAACATAC TGCTACGATT TTCCATTGGT
11681 TAGTATCTCT CTTTCTGTAT TGTGTCTTCT GTTAGCAGAT
TCGTATTGGT CTTACATGTC CTCCTAAAGC TGATAAGAAC
11761 TCAAAAATGT AGGCATTTGA AACTGCAGTG CGGAACTCGT
GGGCTAACAT TTCTAGTGAG AACAACCAAT GTTATGTTAA
11841 AGCGACAGAG CTGGTGTTTG CTGACAAGAA TGGGTCGTGG
GGCACTCCTA TAATTCCTAT GCAGCGTGCT GCTGGGCTCA
11921 ATGACATAGG TATGGTAGCG TGGATCTTGG ACATGTCCAC
TCCTGAATTT CCCAGTGGCA GACAGATTAT TGTTATCGCA
12001 AATGATATTA CTTTATAGAG TGGATCATTT GGCCCAAGGG
AAGATGCATT TTTTGAAGCT GTTACCAACC TGGCTTGTGA
12081 GAAAAAGCTT CCTCTTATCT ACATGGCAGC AACTCTGGT
GCTCGGATTG GCATTGCTGA TGAAGTAAAA TCTTGCTTCC
12161 GTGTTGAATG GGTTGATCCT GCCAACCCTG AACGTGGATT
TAAGTACATT TATCTGAATG AAGAAGACTA TGGCCGTATT

FIGURE 24A CONTINUED

12241 AGCTCTTCTG TTATAGCGCA CAAGACACAG CTAGATAGTG
GTGAAATTAG GTGGGTTATT GATTCTGTTG TGGGCAAGGA
12321 GGATGGACTA GGTGTGGAGA ACATCCATGG AAGTGCTGCT
ATTGCCAGTG CTTATTCTAG GGCATATGAG GAGACATTTA
12401 CACTTACATT TGTGAGTGGA CGAACGGTTG GAATAGGAGC
TTATCTTGCT CGACTTGGCA TACGTTGCAT ACAGCGTATT
12481 GACCAGCCCA TTATCTTAAC TGGGTTTTCT GCCCTGAACA
AGCTTCTTGG GCGGGAAGTG TACAGTTCCC ACATGCAGTT
12561 GGGTGGTCCC AAAATCATGG CTACAAATGG TGTTGTCCAT
CTGACTGTTC CAGATGACCT TGAAGGTGTT TCTAATATAT
12641 TGAGGTGGCT CAGCTATGTT CCTGCCAACA TTGGTGGACC
TCTTCCTATT ACAAATCTT TGGACCCAAT AGACAGACCT
12721 GTTGCATACA TCCCTGAGAA TACATGTGAT CCTCGTGCAG
CCATCAGTGG CATTGATGAC AGCCAAGGGA AATGGTTGGG
12801 TGGTATGTTT GACAAAGACA GTTTTGTGGA GACATTTGAA
GGATGGGCAA AGACAGTAGT TACCGGCAGA GCGAACTTG
12881 GAGGGATTCC TGTGGGTGTT ATAGCTGTGG AGACACAGAC
CATGATGCAG CTCGTCCCTG CAGATCCAGG CCAGCCTGAT
12961 TCCCATGAGC GGTCTGTTCC TCGTGCGGGG CAAGTCTGGT
TTCCAGATTC AGCTACCAAG ACAGCGCAGG CAATGTTGGA
13041 CTTCAACCGT GAAGGATTAC CTCTGTTCAT CCTTGCTAAC
TGGAGAGGTT TCTCTGGTGG GCAAAGAGAC CTTTTTGAAG
13121 GAATTCTGCA GGCTGGATCA ACAATTGTTG AGAACCTTAG
GACATACAAT CAGCCCGCCT TTGTATATAT CCCCAGGCT
13201 GCAGAGCTGC GTGGAGGGGC TTGGGTCGTG ATTGATAGCA
AGATAAATCC AGATCGCATT GAGTGCTATG CTGAGACGAC
13281 TGCAAAAGGC AATGTTCTCG AGCCTCAAGG GTTGATTGAG
ATCAAGTTCA GGTGAGAGGA ACTCCAAGAT TGCATGGATA
13361 GGCTTGATCC AGAATTGGTA AATTTGAAAG CAAAACCTCA
GGGAGCAAAG CATGAAAATG GAAGTCTATC TGATGGAGAA
13441 TCCATTCAGA AGAGCATAGA TGCTCGAAAG AAACAGTTGC
TGCCTTTGTA CACTCAAATC GCGATAAGGT TTGCGGAATT
13521 GCATGACACT TCCCTCAGAA TGCTTGCCAA AGGCGTGATT
AGGAAAGTTG TAGACTGGGA AGAATCTCGG TCTTTCTTCT
13601 ACAAGAGATT ACGGAGGAGG GTATCGGAGG ACGTTCTTGC
AAAGGAGATT AGAGGTGTAA TTGGTGAGAA GTTTTCTCAC
13681 AAATCGGCAG TCGAGTTGAT CAAGAAATGG TACATGGCTT
CTGAGGCAGC TGGAGCAGGA AGCACTGACT GGGATGATGA
13761 TGATGCTTTT GTCGCCTGGA GGGAGAACCC TGAAAACTAT
GAGGAGCATA TCAAAGAGCT AAGGGCTCAA AGGGTATCTC
13841 AGTTGCTCTC AGATGTTGCA GGCTCCAGTT CAGATTTACA
AGCCTTGCCG CAGGGTCTTT CCATGCTACT AGAGAAGGTA
13921 CGCATACTTA CAGTTTTACC TGCATCTATT TTATTTGCAA
GTTTTTAATT GAGGGTGAGT ACAATGTTGC TATCTAAATA

FIGURE 24A CONTINUED

14001 TACACTTAGT ATGTAACCAA ACAGTGCTGC TATCTTTTTC
ATCTATTGTA TCATACCAAA TAATGTCTGA GCCGCTTCTC
14081 TTTGGACACT TGTTCAATG GATCCCTCTA GGAGAGCAGA
GTTTATTGAG GAAGTCAAGA AGGTCCTTAA ATGATCAAAT
14161 GATACCAACA CATCCAATAC AGAATGTGCA TGATATCTGT
TTTCTCTTGA AGTACATATA TAGAAGGATA ATAGCTAATA
14241 TGGGCCAACC ATTGTTTTTG TAAACTTGTT GGTGGTCTAT
GTCATTCAAG GCACAACCTG CTTTTGGACG CAAGCCTGGT
14321 TGAGGAGTGT AAGTGGATGT GTTCGTTCTG GTGCCTCAGG
ACTTGAGAAG AATAGGGGCT GGTGAACTAG AGTTCTTGTT
14401 CTGTGGTGGT ACTGTTTCTC TGGTGCTGTA GTTCTGTGAT
GTACTGTTTC CTGTTGATG CTGTAATTCT AGTCTTGAA
14481 TGTGATCGAG TCCATTCAAT TTTGAACATG AATAATATGT
TTTGTAGGCC TCATGTGTAC CGGTACGTGG AATAAATGTT
14561 CGTTGAGTTA GCATTGAACA TGGAAATCTG TTGGATTGTA
ATGCATGATA GAGTTGTAAT TGTGCAAGTT ACAACTGTCA
14641 TTTTCCTATA CTTGATTCT AGTCCATTTT TGTC

FIGURE 24B

Avena sativa plastidal ACCase PepsiCoV2 chr5D (SEQ ID NO: 972)

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1  MGSTHLPIVG FNASTTPSL S TLRQVNSAGA AFQSSAPSRT
SKKKSRRVKS IRDDGDGGVS DPAGHNKSVR QGLAGIIDLP
81  KEGASAPEVD ISHGSEDHMG SYQMNGILNE SHNGRHASLS
KVVEFCMALG GKTPIHSVLV ANNGMAAAKF MRSVRTWAND
161 TFGSEKAIQL IAMATPEDMR INAEHIRIAD QFVEVPGGTN
NNNYANVQLI VEIAERTGVS AVWPGWGHAS ENPELPDALT
241 AKGIVFLGPP ASSMNALGDK VGSALIAQAA GVPTLAWSGS
HVEIPLELCL DSIPEEMYRK ACVTTADEAV ASCQMIGYPA
321 MIKASWGGGG KGIRKVNND EKVLFKQVQ GEVPGSPIFI
MRLASQSRHL EVQLLCDQYG NVAALHSRDC SVQRRHQKII
401 EEGPVTVAPR ETVKELEQAA RRLAKAVGYV GAATVEYLYS
METGEYYFLE LNPRLQVEHP VTEWIAEVNL PAAQVAVGMG
481 IPLWQVPEIR RFGMDNGGG YDIWRKTAAL ATPFNDFEVD
SQWPKGHCVA VRITSENPDD GFKPTGGKVK EISFKSKPNV
561 WGYFSVKSGG GIHEFADSQF GHVFAYGVTR SAAITNMSLA
LKEIQIRGEI HTNVDYTVDL LNA PDFRENT IHTGWLDTRI
641 AMRVQAERPP WYISVVGAL YKTITTNADT VSEYVSYLIK
GQIPPKHISL VHSTISLNIE ESKYTIEIVR SGQGSYRLRM
721 NGSLIEANVQ TLC DGGLLMQ LDGNSHVIYA EEEAGGTRLL
IDGKTCLLQN DHDP S RLLAE TPCKLLRFLI ADGAHV DADV
801 PYAEVEVMKM CMPLLSPAAG VINVLLSEGQ AMQAGDLIAR
LDLDDPSAVK RAEPFEGSFP ELSLP IAASG QVHKRCAASL
881 NAARMVLAGY DHAVNKVVQD LVWCLDTPEL PFLQWHEELMS
VLATRLPRRL KSELEGKYSE YKSNVDHVKI KDFPTEMLRE
961 TIEENLAYVS EKEMATIERL VDPLMSLLKS YEGGRESHAH
FIVKSLFEY LSVEELFSDG IQSDVIERLR LQYSKDLQKV
1041 VDIVLSHQGV RSKTKLILTL MEKLVYPNPA AYRDQLIRFS
SLNHKRY YKL ALKASELLEQ TKLSELRTSI ARNLSALEMF
1121 TEERAGFSLQ EKKFAINESM GDLVSAPLPV EDALISLFDC
IDQTLQQRVI ETYISRLYQP QLVKDSIQLK YQDSAVIALW
1201 EFNEGHPENR LGAMVILKSL ESVSTAIGAA LKDRSHYASS
AGNTVHIAL L DADTQTYTAE DSGDNDQAQD RMDKLSVILK
1281 QDIVTSDLRA AGVKVISCIV QRDGALMPMR RTFLLSEENL
CYEEEPILRH VEPPLSALLE LDKLKVKGYN EMKYTPSRDR
1361 QWHIYTLRNT ENPKMLHRVF FRTLVRQPSA GSKFMSGHVN
DVEVGHAELS LSFTSSSILR SLMTAIEELE LHAIRTGHSH
1441 MYLCILKEQK LLDLVPVSGN TVVDVGQDEA TACSLMKEMA
LKIHEL VGVR MHHL SVCQWE VKLKLDSGDP ASGSRVVT T
1521 NVT SRTCTVD IYREVEGTES QKLVYHSAPS SSGPLHGVAL
SNSYQPLSVI DLKRC SARNN RTTYCYDFPL AFETA VRNSW
1601 ANISSENNQC YVKATELVFA DKN GSWGTPI IPMQRAAGLN
DIGMVAWILD MSTPEFPSGR QIIVIANDIT FRAGSFGPRE
```

FIGURE 24B CONTINUED

1681 DAFFEAVTNL ACEKKLPLIY MAANSGARIG IADEVKSCFR
VEWVDPANPE RGFKYIYLNE EDYGRISSSV IAHKTQLDSG
1761 EIRWVIDSVV GKEDGLGVEN IHGSAAIASA YSRAYEETFT
LTFVSGRTVG IGAYLARLGI RCIQRIDQPI ILTGFSALNK
1841 LLGREVYSSH MQLGGPKIMA TNGVVHLTVP DDLEGVSNIL
RWLSYVPANI GGPLPITKSL DPIDRPVAYI PENTCDPRAA
1921 ISGIDDSQ GK WLGGMFDKDS FVETFEGWAK TVVTGRAKLG
GIPVGVIAVE TQTMQLVPA DPGQPDsher SVPRAGQVWF
2001 PDSATKTAQA MLDFNREGLP LFI LANWRGF SGGQRDLFEG
ILQAGSTIVE NLR TYNQPAF VYIPKAAELR GGAWVIDSK
2081 INPDRIECYA ETTAKGNVLE PQGLIEIKFR SEELQDCMDR
LDPELVNLKA KLGAKHENG SLSDGESIQK SIDARKKQLL
2161 PLYTQIAIRF AELHDTSLRM LAKGVIRKVV DWEESRSFFY
KRLRRRVSED VLAKEIRGVI GEKFSHKSAV ELIKKWMAS
2241 EAAGAGSTDW DDDDAFVAWR ENPENYEEHI KELRAQRVSQ
LLSDVAGSSS DLQALPQGLS MLEKMDPSR RAEFIEEVKK
2321 VLK

FIGURE 25A

cDNA sequence of *Avena sativa* plastidal ACCase PepsiCoV2
chr6A (SEQ ID NO: 973)

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1  ACCCCCTCTC GGTCTCGGGA TATCCGCCCCG CCCGCGCTCG
CTCGTCCAC TCTCCCCGCC CCCCTCCGGC ACCACGCCGC
81  CGCAAGATCC AAAGCCCAGC CGCGGCAGGA CGTCACTCTC
GAAGCACCCG CGCGCGTCGG CACGTCCGCC TCCCCGAGGT
161 GCGCGCCCTA CTCCGCTATT TATTTATGCC CTCCCCTCCC
CCGCCATTCC ACTGTCGCGC CCCAGATCCG CCGTCCGATC
241 TGCCTCCGCT CCCGAGGTG AGGACAGCCG CCACCGCTCC
TCTCATATGT TATTGCTGTG TTTTGTGCGC GCCGGGCCGG
321 GGCCGTTCTG CCGCGGCTTT CGTTCGTGGG GGTGGCGGGG
AGGGGTTTAA GGTACTGTG CTGCGCGGGA CCTGGGGTTA
401 GTGCGCTCTG TGTTTGAAAC TCGGCCGAGC TTGGGATTGG
ATTGTTGGGA GTCGCGGTG GCATGCTTAG GTAGTGGCGA
481 TAGTCAGGAG AATGCTGAAA TCGGGCTCGC CTA CTGTATC
AATGCGAGGT ACTAGTGATC ATGGCCGGT CGAAGGTGCC
561 CTGTGCCTAG CATTGTCTTT CTCAGGCTGG TTCCTCTGTG
CTTCCGTGGA ACATATCCAT GCTAAGCGCA AGCTGCCTGC
641 GATGGTACAC CATGGCAGTG CAGTAGACGA GGAGTGCCTG
GGTGCTGCCA ATGATAGGTT TATGTTCTTA GTTTCCTGTT
721 AGGAGGGTAT TAATGCTACC CATTGTAGTA TGACACTGAG
CTACCTACCT TGGTTTTTGG TAATAAAGTT TGGGTTTCCT
801 GTTTCATTGG AGAATTGCAT TCCTTGCCTA TTTTAGTCCA
GAGCATCTTG GTTGTGTTGAA CTTACCGAGA GAGGCCGTGA
881 ATTAATCCAT GAAGTTTCCT GTTGCCTGTC TCTATGGACT
AATGATTTCT GTGCGCATGC ATCTGTCAGG TTTCCATACC
961 TGGGGTTTAC AACTCGGTT TATGGCACTG TGCATCTGAA
GAACACTGCA ACTGTGCTGT CTGTCCAGAG GGAGAACAAT
1041 GGGATCCACA CATTGCCCCA TTGTTGGATT TAATGCCTCC
ACAACACCAT CGCTATCCAC TCTTCGCCAG GTAAATTCAG
1121 CTGGTGCTGC ATTCCAATCT TCTGCCCCTT CAAGGACCTC
CAAGAAGAAA AGTCGCCGTG TTAAGTCAAT AAGGGATGAT
1201 GGTGATGGAG GCGTGTGAGA CCCTGCAGGG CATAATAAGT
CTATTCGCCA AGGTAACCCG AGGACCATCT CTTTCTATT
1281 TTGTGGTCAA TCTCAGACCT GCATAGCAA TTTGCTTGAC
CAAGAGCATG CTTATTTTAG TGTAAGATAT CCAATAGTG
1361 TTATCACAAA ATGATAGATA GGATATAGAT CACTACAGCA
ATCTTCATAG ATTCTTATGC CCAAGTTGAC ATGCTGAGCT
1441 GTCTGATGTC TCCGCATTGA GATTCATGAA TGAATTGGGA
AAATCAAGAT TAGATCAGAT AGCTAGCACA ATCGACTTAG
1521 ACATAATAAA ATCTCTGTCA ACTTAGGTGT AGATGGACTC
TATTTTAATA TTCAATATGA TGTTTTCTCA AGGGAAAGTG
1601 GACACGAAAA TACATGTATG CTGCAATTTA AGTACGCATG
ACTGAATGTT TTGATTATAT AATAGGTCTG GAAAAGTCTA
```

FIGURE 25A CONTINUED

1681 GAAAGATTTTCTGATGAATT TAGTTGCACA AATAACAATA
ACATCCAAAA GTTGCCAAAC CACTGCTTCT TCTTAGGTAT
1761 TGTGTAGGCT TGCTCAGTTT CCAATGCATA TCTGGATGTA
GGTCTCGCTG GCATCATCGA CCTCCCAAAG GAGGGTGCAT
1841 CAGCTCCAGA AGTGGACATT TCACAGTAAG TACTTCAGCA
CACTTTATAG TTTAGTTCTG ATAGAACAGT GGAAGATGTA
1921 TAACGCATTT GTAATTCCTG GATTTCACTT GTCTTATTAT
GGGTACACTT AAATGTTGAA GTTGGAATTT TGTTATCTCT
2001 TAGATTACAC TTCTATACAT CATAGTTATA CACTATGCAC
CTGCTGTGAG TTCTGGAAAT TGAACCTTTG TCATGTGGCG
2081 CACTTTAATC TGTAAGGTTT TATTTTTGAT ATAGTATAGT
TATAAATCAT GTGCAATCTC TCCCGTCTAT ACCATTATTT
2161 ATGTAAGATA TAATCCATAT TTGGTGTGAT TTCTCTTTAC
AAGTTGTGAA ACTTGTGTTC AACTTTGTAA AGGGAAATAT
2241 CCCCCAACAT ATATTTACCT GTTCTAGTGG TTACAGCCCA
GGCACATGGC TGTTGCCTTG CATGGAGTTT TATTGGGCAC
2321 TTAAAAACAT TTCATGGGAA AACTTTTTTC ATATAAGTAT
TGTTTAAATT TAATTGCCAT CTGAAACCCG TACCCGAATG
2401 ACAAGATGAA AAAGCCCACC TGTGTTTCTG ATTCATACTA
GGCAATACTA TGTCATGTGT TATGGGACCA CAGTAATGAT
2481 GTTGCTCTTT CTTTTATAGT GGGCCGGAAG ACCACATGGG
CTCCTACCAA ATGAATGGGA TACTGAATGA ATCACATAAC
2561 GGGAGGCACG CCTCTCTGTC CAAGGTTGTT GAATTTTGTA
TGGCATTGGG TGGAAAAACA CCAATTCACA GTGTATTAGT
2641 CGCCAACAAT GGAATGGCAG CGGCTAAGTT CATGCGGAGT
GTCCGGACAT GGGCCAATGA TACATTTGGG TCAGAGAAGG
2721 CGATTCAGTT GATAGCTATG GCAACTCCGG AAGACATGAG
AATAAACGCA GAGCACATTA GAATTGCTGA TCAATTTGTT
2801 GAAGTACCTG GCGGAACAAA CAACAACAAC TATGCAAATG
TCCAATCAT AGTTGAGGTC AGTACTGATC ATCCCTTGAT
2881 GTGCAATTTA TGTATGAGTT CCTCTTTGTT CTTTTAGCAT
GACATGGCAA CTTCACTTTT GCAGATAGCA GAGAGAACAG
2961 GTGTTTCTGC CGTTTGGCCT GGTGGGGCC ATGCATCTGA
GAATCCTGAA CTTCCAGATG CACTAACTGC AAAAGGAATT
3041 GTTTTTCTTG GGCCACCAGC ATCATCAATG AACGCACTAG
GTGACAAGGT TGGTTCAGCT CTCATTGCTC AAGCAGCAGG
3121 GGTTCCCTACT CTTGCTTGGA GTGGATCACA TGTAAGCCTC
ACATTCTCTG TGATAACTCG TCGCCTGATA TTTGTAGTGG
3201 ATGCATTTTA TAACATAATG GCACTTTATT ATAGGTGGAA
ATTCCATTAG AACTTTGTTT GGAATCGATA CCTGAGGAGA
3281 TGTATAGGAA AGCTTGTGTT ACTACCGCAG ATGAAGCAGT
TGCAAGTTGT CAGATGATTG GTTATCCTGC CATGATCAAG
3361 GCATCCTGGG GTGGTGGTGG TAAAGGGATT AGAAAGGTAC
ATTATTCATT TGATTGGAGT GTACTTGAGT TCTGTGCGCA

FIGURE 25A CONTINUED

3441 GTGTTAGCCC TAACCCTTTT TAACATATTA TTAACCTAGAT
ATCTCTTGCA GGTAAATAAT GATGATGAGG TTAAAGCACT
3521 GTTTAAGCAA GTACAGGGTG AAGTTCCTGG CTCCCCAATA
TTTATCATGA GACTTGCATC TCAGGTTAGA CTTCTGGAAT
3601 TTCTGTTTTT TAAGCATGCT GTTTCTGAAT TGTATATTGT
ATGTCTGGAA GCTTCATTTG CGTCTTCCTT GCAGGCTAGA
3681 ATTGTATTGT GTAATCTGTA CTCAATGGTA ATTTTCATTT
TAATCCCTCT CCTCTTTCCT TTTGTAGAGT CGACATCTTG
3761 AAGTCCAGCT GCTTTGTGAT CAATATGGCA ATGTAGCAGC
ACTTCACAGT CGTGATTGCA GTGTGCAACG ACGACACCAA
3841 AAGGTATGCT GCTCCAGATT GAAATCATTG CTTTCATTTG
TGGTCTGCTT ACCTGAAAGT TTGATCAAAT GGTTCAACTG
3921 GGTCCATTTT GTTTTGTTTA TAACAGATAA TTGAGGAAGG
ACCAGTTACT GTTGCTCCTC GTGAGACGGT GAAAGAGCTA
4001 GAGCAAGCAG CAAGGAGGCT TGCTAAGGCT GTGGGTTATG
TTGGTGCTGC TACTGTTGAA TATCTCTACA GCATGGAGAC
4081 TGGCGAATAC TATTTTCTGG AGCTTAATCC ACGGTTGCAG
GTTTGTTTCT TTGAACACTC TTCAGGACTT ATATTTTGTT
4161 GGCAGTCGTT TATATTGTTA AATGTTCTAC ATTCAGGTTG
AGCACCCCGT CACTGAGTGG ATAGCTGAAG TCAATTTGCC
4241 TGCAGCTCAA GTTGCAGTTG GAATGGGTAT ACCCCTTTGG
CAGGTTCCAG GTAATAATAA TATCATCGTA AATTTACAGT
4321 TTCTGTCCCA TGATATTTCT GTGTCTAACT ATCTTCTTAT
ACAGAGATCC GACGTTTCTA CGGAATGGAC AATGGAGGTG
4401 GCTATGACAT TTGGAGGAAA ACAGCAGCTC TTGCTACTCC
ATTCAACTTT GATGAAGTAG ATTCTCAATG GCCAAAGGGG
4481 CATTGTGTAG CAGTTCGGAT AACTAGTGAA AATCCAGATG
ATGGATTCAA GCCTACTGGT GGAAAAGTAA AGGTGAGATT
4561 TCTTAATGTG ATATCTATGT TTCAAGCACA CTAGGGTTAG
TAAACTAACC TGATCTTAAT TTTTTCGTGT ATTTTCAGGAG
4641 ATAAGTTTTA AAAGTAAGCC AAATGTCTGG GGATATTTCT
CAGTTAAGGT AAGCTGTTCA TAGCTCTGTT GCAGTGTCAT
4721 GTTCCGAGTT TCCACAGAAA ATTGGTCTGC AAGACTTTTT
ATTCGAACCA GTATTCTCAG TTGGGTTTTG ACTAAGTATT
4801 GATCCAATCA ACAAATGTTT TCTCCCCCTT CATCTGTTTT
CAGTCTGGTG GAGGCATTCA TGAATTTGCG GATTCTCAGT
4881 TTGGTATGTA AAATTTGACC CAGTGAATAT TCCTCTTTCG
TTTTTGATT TCCTTACAGT GAAATTGCTC CTTTCATTGC
4961 AGGACATGTT TTTGCCTATG GGGTGAAGTAG ATCAGCAGCA
ATAACCAACA TGTCTCTTGC ATTAAAAGAG ATTCAAATTC
5041 GCGGAGAAAAT TCATACAAAC GTTGATTACA CGGTTGATCT
CTTGAATGTA AGTAATAGTA ACTTGTTGAA TCCTACTTTT
5121 GATGTAATAC AACCATTTTA CATCCGGCTT TCCTTCAAAA
TAATCCCATG CTGTGTTTCC TGTATCATTA ATTCAGGCCC

FIGURE 25A CONTINUED

5201 CAGACTTCAG AGAAAACACC ATTCATACTG GCTGGCTGGA
TACCAGAATA GCTATGCGTG TTCAAGCTGA GAGGCCTCCC
5281 TGGTATATTT CAGTGGTTGG AGGAGCTCTA TATGTAAGAT
AAAGAACTA TGTTAATGTT ACTGCAACTT TTGGTAACCC
5361 AATTACGGAA AACACAATA TAGTGTTTAA TTGAAATCAT
TGTTTTGTGC TGTAGAAAAC AATAACCACC AACGCGGACA
5441 CCGTTTCTGA ATATGTTAGC TATCTCATCA AGGGTCAGAT
TCCACCAAAG GTAGTTTCTT ATGGGGCTTA AACTCTGTAT
5521 ATTGCTTGAA GGTGAACATT GTTGACCATT GTTTTTGTGC
AGCACATATC CCTTGTTTCT TCAACTATTT CTTTGAATAT
5601 AGAGGAAAGC AAATATACAG TAAGTGTGAC ATTCCTTAAA
GAAAGACTCT CAGTTATAAT GAAATGATAG CTATTACTGA
5681 TGCTCATGTA CACCATGTCA CAGATTGAGA TTGTGAGGAG
TGGACAGGGT AGCTACAGAT TGAGAATGAA TGGTTCACCT
5761 ATTGAAGCAA ATGTACAAAC ATTATGTGAC GGTGGCCTTT
TAATGCAGGT ACCTTCTTTC TTTTATACTT GCACATAAAT
5841 ATAATTCAAG TTTGTAAAGT ACTTCTGAAA GAGTTCTGAT
TCCTTAGTTC TAATGTCTCC AGCTGGATGG AAACAGCCAT
5921 GTTATTTATG CTGAAGAAGA AGCGGGTGGT ACACGGCTTC
TTATTGATGG AAAGACATGC TTGTTACAGG TAAGATTTTT
6001 TTTATTTGTT CCTTTATTTA TAATGTTAGT GTCTAATGAC
AGGACTTTGT ATTCCTATTC GTGATACTGC ATTCACCTTT
6081 TGACCATTAG CACTTCATTT TGAAAAGAAA AGATAAGTCG
GTATTATGAA CTAATGGTTG GTACAACATG ATGTTTTTTCG
6161 AGATCTATTC TGTGTCAAAA TGTAAGGTC ACTGCTTAAG
CAGCCAGACA CACCAGGTGA TATTAACTT TACCGAGAGC
6241 AGGTCTTGTG ATTTATAAAG ACAAGTTACA TAACTGCAAT
GTTCTGTTAT ATTGCTTCTG ATTCTCAAAT CTAGTTATTC
6321 CAACGACACT GTATTTTTTAA TAATCACTAA TTTATCATAA
TAAGATGCAA AATAAGTTAG AAGGTGTCCT ACTCCTACAA
6401 CACTGTCACG TCTGATCAAA TCATCTTTGT GATATAAAAG
AACAGTTGAA TACTTTTATG TTTTCTTGC ACCAATACTT
6481 TATGATTCTT GATCATGCTG CATTGTATCC TCAACTAAAT
AAATGACAAA TCGTTTTGCA GAATGATCAT GATCCGTCOA
6561 GGTTATTAGC TGAGACACCC TGCAAACCTC TTCGTTTCTT
GATTGCCGAT GGTGCTCATG TTGATGCTGA TGTACCATAT
6641 GCGGAAGTTG AGGTTATGAA GATGTGCATG CCCCTCTTGT
CTCCTGCTGC TGGTGTCATT AATGTTTTGT TGTCTGAGGG
6721 CCAGGCGATG CAGGTTATAT TGCTGCACTT TCATTTCTTC
GGCTATTAAT AACCATTGCA TGTTAAGCAT CTGAACTTAA
6801 TATTCTTTTC AGGCTGGTGA TCTTATAGCA AGACTTGATC
TCGATGACCC TTCAGCTGTG AAGAGAGCTG AACCATTCTGA
6881 AGGATCTTTT CCAGAACTGA GCCTTCCTAT TGCTGCTTCT
GGCCAAGTTC ACAAAGATG TGCTGCAAGT TTGAATGCTG

FIGURE 25A CONTINUED

6961 CTCGAATGGT CCTTGCAGGA TATGACCATG CAGTCAACAA
AGTAAACATC AAGACCCCTA CAGCAACTAT GTTCTATTA
7041 TTTTGTCTCA TGTTTCCTTT TTTTCTCAA TACCATTTAT
TATTATTACG AATTCTGGAT TATTCTTAGT TCCTCATTGG
7121 CATTTTCTGC CTTTGTCTAC CAAATGGTTT CTAATGTCGA
GAAGTTCTTG GTGCTTGTCT TCGCAAATCT TGATTTTAAT
7201 GCTTTTCTCT TATGTTTACC ATACTCACTG ATGATATAGG
CCGTATTTAT CCTTGTGATA TTTTCTCTC CCTGTAAATC
7281 ATGATAGAGA TGCTCTTCT CTTATGTTCA TCATGCTCAG
TATTTTTTAT TATATAGATC GTATTTTTCC TTGTGCTATT
7361 TTTCTTTCTT TCAGTAACTG ATGTTTACAG ATCAAACCTT
GTACCTTGTT GTAATTTATA GTCTAAGATC AGCATTTGAT
7441 TACCTTTTCC ATTGTACTGG GCTTCTTTTT TAGGTTGTAC
AAGATTTGGT ATGGTGCCTA GATACACCTG AGCTTCCTTT
7521 CCTACAATGG GAAGAGCTTA TGTCTGTTTT AGCAACTAGA
CTTCCAAGAC GTCTTAAGAG TGAGGTATGT GATAATTGAT
7601 ATGATATGCA GAATCTGGCA TGAAGAGATG TTGATACATT
TAATTTATGA TATACTCCCT CCGTTCCAAA TTATAAGTTG
7681 TTTTAGCTAT TTCATTGTGG TCTACTACAT ACGGACCAAA
ATGAGTGAAC CTACGCACTA AAAGGTGTCT AGAGACATGC
7761 GTTTCAGAAA AAAGCTAAAA CATCTTATAA TTTGAAACGG
AGGGACTATA TAGAAGGTTC TTAGCCCTGA ACTAAAAGAT
7841 CATGTCACTT AATAAGATTT ACATTGTTCA ATCACCTTGG
TTATTTTCCT CAACTTATTA TGCAACTTTT AGCTTTATTC
7921 TAATAATGTA ATCAAAATTC AGAATATTTT ACTTCAATTC
TTCGTAGCAT GAAACATCTG GTACTCTGTC TCATTTATTT
8001 GCACTGTACG TTGTTTATTG ATCTTCTGCC TCAACCGTTT
CTAATTTTTTA TGCATCCAGT TGGAGGGTAA ATACAGTGAA
8081 TATAAGTTAA ATGTTGACCA TGTGAAGATC AAGGATTTCC
CCACCGACAT GCTTAGAAAAG ACAATTGAGG TCAGTTTTTG
8161 GTTTCTTATG GTACCCAGT ATAAGTCGTA CTACTTTTTG
TAACAAGTTT TCTTTTAGGA AAATCTTGCA TATGTTTCTG
8241 AGAAGGAAAT GGCGACAATT GAGAGGCTTG TTGACCCTCT
GATGAGTCTA CTGAAGTCAT ATGAGGGTGG GAGAGAAAGC
8321 CATGCCCACT TTATTGTCAA GTCCCTTTTC GAGGAGTATC
TCTCGGTTGA GGAACATATC AGTGATGGCA TTCAGGTTAT
8401 CTTACATTC AAAACTGAGC AGATCTACTA GTTCATTTTA
AGGGTCATTC TTTTTCCTTC TTTTAGTTAT GAACATGTAC
8481 GAATTGATGC CACACACATG TTATAGATTG CATCAGAACC
TGTTGGGTAA TTAAGTAGCA AATAAATTGT ACATGGCTTA
8561 AGAATTATTT CCTTCAAAC ACTTTTCACT CACCGTTTTT
CTCAAATAT GCCATTTTGT AGTCCGACGT GATTGAACGC
8641 CTGCGCCTAC AATATAGTAA AGACCTCCAG AAGGTTGTAG
ACATTGTTTT GTCTCACCAG GTAAATTACT TTTTGGCCTA

FIGURE 25A CONTINUED

8721 ATGACTTGGC GCAAGTGATC ACTGACGCAA TCTTCATTAC
TGATTGTTTG ATTTTGTCT AGGGTGTGAG AAGCAAAACC
8801 AAGCTGATAC TCACGCTCAT GGAGAACTG GTCTATCCAA
ACCCTGCTGC CTATAGGGAT CAGCTGATTC GCTTTTCTTC
8881 CCTCAACCAT AAAAGATATT ACAAGGTAGC AGTGGTGACC
TAAAATAATG GAAGCTTTTT GAATAATTCT GTTGTGATAT
8961 CTTAGGCTAA TGAATTAATT TCATTGTAAT AACGCAGCTG
GCTCTTAAAG CTAGTGAAC TCTCGAACAA ACCAAGCTCA
9041 GTGAACTCCG CACAAGCATT GTAAGGAACC TTTCAGCGCT
GGAGATGTTT ACTGAAGAAA GGCAGGTTT CTCGTTGCAA
9121 GAGAAGAAAT TGGCCATTAA TGAGAGCATG GGAGATTTAG
TCAGTGCCCC ACTGCCAGTT GAAGATGCAC TTATTTCTTT
9201 GTTTGATTGT ATTGATCAAA CTCTTCAGCA GAGAGTGATC
GAGACGTACA TATCTCGATT ATACCAGGTA TGTTTTGGAT
9281 TTTATCATA TCACCATTTC TGAAGCATA CACTAAAGTT
CCTAATGAAA TAAGATGCTC AGAGTTTGTT TAAAATAAAT
9361 TATAAATAAT CTAGGTGTGG GAACATTTGA TTTAGAAGTT
CTTGTGGACA TGTTACTGCT CTGTATGTTG ACTAAGTTGC
9441 CAATGATATT TTCAGCCTCA ACTTGTGAAG GATAGTATCC
AGCTGAAATA TCAGGATTCT GCTGTTATCG CTTTATGGGA
9521 ATTCAACGAA GGCATCCTG ATAATAGATT GGGTGCTATG
GTTATCCTGA AGTCTCTAGA ATCTGTGTCA ACAGCAATTG
9601 GAGCTGCTCT AAAGGATAGA TCACATTATG CAAGCTCTGC
GGGTAACACA GTGCATATTG TTTTGTTGGA TGCTGATACT
9681 CAGACGAATA CAACTGAAGA TAGGTATGTT CATGTGCAGT
ATTAGTGCCA ATGGCTTATT TGGTGCAATT CTAAAATAA
9761 GTTAACCTAT TTGACTATTT CTTTCAGTGG TGATAACGAC
CAAGCTCAAG ACAGGATGGA CAACTTTCT GTAATACTGA
9841 AACAAGATAT TGTCACGGCT GATCTACGTG CTGCTGGTAT
CAAGGTTATT AGTTGCATTG TTCAAAGAGA TGGAGCACTC
9921 ATGCCTATGC GCCGTACCTT CCTCTTGTCT GAAGAAAAGC
TTTGTATGA GGAAGAGCCG ATTCTTCGGC ATGTGGAGCC
10001 TCCACTTTCT GCACTTCTTG AGTTGGTATG TAACTCGATC
AAACTGACTG CACGCTGTCT TGATGCACTT TAATGCTTTC
10081 ATTTTATTAT TTGCTAGTTG TATTTATTTA GCCTGCTGTG
GATACAGGAT AAATTGAAAG TGAAAGGATA CAATGAGATG
10161 AAGTATACAC CGTCACGTGA TCGTCAGTGG CATATATACA
CACTTAGAAA TACTGAAAAC CCCAAAATGT TGCACAGGGT
10241 ATTTTCCGA ACTCTTGTC GACAGCCGAG TGCTGGCAAC
AGGTTTATGT CAGGCCATAT CAATGATGTT GAAGTAGGAC
10321 ATGCTGAGGA ATCTCTTTCA TTTACATCAA GCAGCATATT
AAGATCTTTG ATGACTGCTA TAGAAGAATT GGAGCTTCAC
10401 GCGATTAGGA CTGGTCATTC TCATATGTAC TTGTGCATAT
TGAAAGAGCA AAAGCTTCTT GACCTTGTTT CTGTTTCAGG

FIGURE 25A CONTINUED

10481 GTAAGCCTGC ACATCGTTCT TTTTGTGCGAA CATATATGCC
TTGCTCTTGT GTTTCGCCGT CTCAACGAGC TTTTCATCTT
10561 ACTCAGGAAC ACAGTTGTGG ATGTTGGCCA AGATGAAGCT
ACTGCGTGCT CTCTTATGAA AGAAATGGCT CTAAAGATAC
10641 ATGAACTTGT TGGTGCAAGA ATGCATCATC TTTCTGTATG
CCAGTGGGAA GTGAAACTTA AGTTGGACAG CGATGGACCT
10721 GCCAGTGGTA GCTGGAGAGT TGTAACAACC AATGTCAC TA
GTCACACCTG CACTGTGGAT GTAAGTTTTA TCCCTTTGCA
10801 TCTTGTTTTT CTGTATGAAA CTAGTGAAAC TAAAGTGAAC
ATATGACAAA TATACATGGA GCTATCATCT TATTTAGTTT
10881 GTTGTCAATTT CCACCTCATT TAGACATTTA CGTCTGAAGC
TCATGGTGCT TTTACTATTT TTAGATCTAC CGGGAGGTCG
10961 AAGATACAGA TTCACAGAAG CTAGTATACC ACTATGCTGC
ATCGTCACCT GGTCCCTTGC ATGGTGTAC ATTGAGTAAT
11041 TCATACCAGC CTTTGAGCGT TATTGATCTA AAACGATGCT
CTGCCAGGAA CAACAGAACT ACATACTGCT ACGATTTTCC
11121 ATTGGTTAGT ATCTATCTCT CTGTATTATG TCTTCTGTTA
GCACATTCCT ATTGGTCTTG CATGTCCTCC TAAAGCTGAT
11201 AAGAACTCAA AAATGTAGGC ATTTGAACT GCAGTGCGGA
AGTCATGGGC TAACGTTTCT AGTGAAAACA ACCAATGTTA
11281 TGTTAAAGCA ACAGAGCTGG TGTTTGCTGA CAAGAATGGG
TCGTGGGGCA CTCCTATAGT TCCTATGCAG CGTGCTGCTG
11361 GGCTCAATGA CATCGGTATG GTTGCCTGGA TCTTGGACAT
GTCCACTCCT GAATTTCCCA GTGGCAGACA GATTATTGTT
11441 ATCGCAAATG ATATTACTTT TAGAGCTGGA TCATTTGGCC
CAAGGGAAGA TGCATTTTTT GAAGCTGTTA CCAACCTGGC
11521 TTGTGAGAGA AAACCTCCTC TTATCTACAT GGCAGCAAAC
TCTGGTGCTC GGATTGGCAT TGCTGATGAA GTAAAATCTT
11601 GCTTCCGTGT TGAATGGGTT GATCCTGCCA ACCCTGAACG
TGGATTTAAG TACATTTATC TGAATGAAGA AGACTATGGT
11681 CGTATTAGCT CTTCTGTTAT AGCGCACAAG ACACAGCTAG
ATAGTGGCGA AATAAGGTGG GTTATCGATT CTGTTGTGGG
11761 CAAGGAGGAT GGA CTAGGTG TGGAGAACAT ACATGGAAGT
GCTGCTATTG CCAGTGCTTA TTCTAGGGCA TACGAGGAGA
11841 CATTTACACT TACATTTGTG AGTGGTCGAA CGGTTGGAAT
AGGAGCCTAT CTTGCTCGGC TTGGCATAAC GTGCATACAG
11921 CGTATTGACC AGCCCATTAT CTTAACTGGG TTTTCTGCCC
TGAACAAGCT TCTTGGGCGG GAAGTGTACA GCTCCACAT
12001 GCAGTTGGGT GTCCCAAAA TCATGGCTAC AAATGGTGTT
GTCCATCTGA CTGTTCCAGA TGACCTTGGA GGTGTTTCTA
12081 ATATATTGAG GTGGCTCAGT TATGTTCTCG CTAAACATTG
TGGACCTCTT CCTATTACAA AATCTTTAGA CCAATAGAC
12161 AGACCTGTTG CATACATCCC TGAGAATACA TGTGATCCTC
GTGCAGCCAT CAGTGGCATT GATGACAGCC AAGGGAAATG

FIGURE 25A CONTINUED

12241 GTTGGGTGGT ATGTTTGACA AAGACAGTTT TGTGGAGACA
TTTGAAGGAT GGGCAAAGAC AGTAGTTACT GGCAGAGCAA
12321 AACTTGGAGG GATTCCTGTG GGTGTTATAG CTGTGGAGAC
ACAGACCATG ATGCAGCTCG TCCCTGCAGA TCCAGGTCAG
12401 CCTGATTCCC ATGAGCGGTC TGTCCTCGT GCGGGGCAAG
TCTGGTTTCC AGATTCAGCT ACCAAGACAG CGCAGGCAAT
12481 GTTGGACTTC AACCGTGAAG GATTACCTCT GTTCATCCTT
GCTAACTGGA GAGGCTTCTC TGGTGGGCAA AGAGACCTTT
12561 TTGAAGGAAT TCTGCAGGCT GGATCAACAA TTGTTGAGAA
CCTTAGGACA TACAATCAGC CTGCCTTTGT ATATATCCCC
12641 AAGGCTGCAG AGCTGCGTGG AGGGGCTTGG GTCGTGATTG
ATAGCAAGAT AAATCCAGAT CGCATTGAGT GCTATGCTGA
12721 GACGACTGCA AAAGGCAATG TTCTCGAGCC TCAAGGGTTG
ATTGAGATCA AGTTCAGGTC AGAGGACCTC CAAGATTGCA
12801 TGGATAGGCT TGATCCAGAA TTGGTAAATC TGAAAGCAAA
ACTCCAGGGA GCAAAGCATG AAAATGGAAG TCTATCTGAT
12881 GGAGAATCCC TTCAGAAGAG CATAGAAGCT CGAAAGAAAC
AGTTGCTTCC TTTGTACACT CAAATTGCGG TAAGGTTTGC
12961 GGAATTGCAT GACACTTCCC TCAGAATGCT TGCTAAAGGC
GTGATTAGGA AAGTTGTAGA CTGGGAAGAA TCTCGGTCTT
13041 TCTTCTATAA GAGATTACGG AGGAGGATAT CTGAGGACGT
TCTTGCAAAG GAGATTAGAG GTGTAATTGG TGAGAAGTTT
13121 TCTCACAAAT CAGCAGTCGA GTTGATCAAG AAATGGTACA
TGGCTTCTGA GGCAGCTGAA GCAGGAAGCA CTGACTGGGA
13201 TGATGACGAT GCTTTTGTCTG CCTGGAGGGA GAACCTGAA
AACTATGAGG AGCATATCAA AGAGCTTAGG GCTCAAAGGG
13281 TATCTCAGTT GCTCTCAGAT GTTGCAGGCT CCAGTTCGGA
TTTAGAAGCC TTGCCGAGG GTCTTTCCAT GCTACTAGAG
13361 AAGGTACGCA TACTTACAGT TTCACGTGCA TCTGTTTTAT
TTGCAAGTTT CTAATAATGTT GCTATCTTCA TATATACACT
13441 TAGTATGTAA CAAAACAGCG CTGCTATCTT TTTCATCTAT
CGTATCATAC CAAATAATGT CTGAGACACT TCTCTTTGGA
13521 CACTTGTTCA GATGGATCCC TCTAGGAGAG CAGAGTTTAT
TGAGGAAGTC AAGAAGGTCC TTAAATGATC AAATGATAGC
13601 AACACATCCA ATACAGAGTG CATGATATCT GTTTCTCTTG
AAGTACATAT ATAGAAGGAT AATAGCTAAT ATGGGCCAAC
13681 CATTGTTTTT GTAAACTTGT TGGTGGTCTA TGTCATTCAA
GGCACAACCTT GCTTTTGGAC CCAAGCCTGG TTGAGGAGTG
13761 TAAGTGGATG TGTTAGTTCT GGTGCCTGAG AAGAATAGGG
GCAACTGGGT AACCTACCGT TGGCGAGAGA GCTGGTGATC
13841 TAGAGTTCTT GTTCTGTGGT GGTACTGTTT CCCCAGTGCT
GTAGTTCTGT GATGTACTAT CTCCTGTTCTG ATGCTGTAAT
13921 TCTAGTCTTG GAATGTGATT GAGATGTCCA TTCAATTTTG
AACATGAATA ATATGTTTTG TAGGCCTCAT GTGTACCGGT
14001 ATGTGGAATA AATGGTCGTT AGCATTGAAC ATGG

FIGURE 25B

Avena sativa plastidal ACCase PepsiCoV2 chr6A (SEQ ID NO: 974)

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1  MGSTHLPIVG FNASTTPSLS TLRQVNSAGA AFQSSAPSRT
SKKKSRRVKS IRDDGDGGVS DPAGHNKSIR QGLAGIIDLP
81  KEGASAPEVD ISHGPEDHMG SYQMNGILNE SHNGRHASLS
KVVEFCMALG GKTPIHSVLV ANNGMAAAKF MRSVRTWAND
161  TFGSEKAIQL IAMATPEDMR INAEHIRIAD QFVEVPGGTN
NNNYANVQLI VEIAERTGVS AVWPGWGHAS ENPELPDALT
241  AKGIVFLGPP ASSMNALGDK VGSALIAQAA GVPTLAWSGS
HVEIPLELCL DSIPEEMYRK ACVTTADEAV ASCQMIGYPA
321  MIKASWGGGG KGIRKVNND EVKALFKQVQ GEVPGSPIFI
MRLASQSRHL EVQLLCDQYG NVAALHSRDC SVQRRHQKII
401  EEGPVTVAPR ETVKELEQAA RRLAKAVGYV GAATVEYLYS
METGEYYFLE LNPRLQVEHP VTEWIAEVNL PAAQVAVGMG
481  IPLWQVPEIR RFYGMDNGGG YDIWRKTAAL ATPFNFDEVD
SQWPKGHCVA VRITSENPDD GFKPTGGKVK EISFKSKPNV
561  WGYFSVKSGG GIHEFADSQF GHVFAYGVTR SAAITNMSLA
LKEIQIRGEI HTNVDYTVDL LNAPDFRENT IHTGWLDTRI
641  AMRVQAERPP WYISVVGAL YKTITTNADT VSEYVSYLIK
GQIPPKHISL VHSTISLNIE ESKYTIEIVR SGQGSYRLRM
721  NGSLIEANVQ TLCDGGLLMQ LDGNSHVIYA EEEAGGTRLL
IDGKTCLLQN DHDP SRLAE TPCKLLRFLI ADGAHV DADV
801  PYAEVEVMKM CMPLLSPAAG VINVLLSEGQ AMQAGDLIAR
LDLDDPSAVK RAEPFEGSFP ELSLPAAASG QVHKRCAASL
881  NAARMVLAGY DHAVNKVVQD LVWCLDTP EL PFLQWHEELMS
VLATRLPRRL KSELEGKYSE YKLNVDHVKI KDFPTDMLRK
961  TIEENLAYVS EKEMATIERL VDPLMSLLKS YEGGRESHAH
FIVKSLFEEY LSVEELFSDG IQSDVIERLR LQYSKDLQKV
1041  VDIVLSHQGV RSKTKLILTL MEKLVYPNPA AYRDQLIRFS
SLNHKRYRYKL ALKASELLEQ TKLSELRTSI VRNLSALEMF
1121  TEERAGFSLQ EKKLAINESM GDLVSAPLPV EDALISLFDC
IDQTLQQRVI ETYISRLYQP QLVKDSIQLK YQDSAVIALW
1201  EFNEGHPDNR LGAMVILKSL ESVSTAIGAA LKDRSHYASS
AGNTVHIVLL DADTQTNTE DSGDNDQAQD RMDKLSVILK
1281  QDIVTADLRA AGIKVISCIV QRDGALMPMR RTFLLSEEKL
CYEEEPILRH VEPPLSALLE LDKLKVKGYN EMKYTPSRDR
1361  QWHIYTLRNT ENPKMLHRVF FRTLVRQPSA GNRFMMSGHIN
DVEVGHAES LSFTSSSILR SLMTAIEELE LHAIRTGHSH
1441  MYLCILKEQK LLDLVPVSGN TVVDVGQDEA TACSLMKEMA
LKIHELVGAR MHHL SVCWE VKLKLDSGDP ASGSRVVT
1521  NVTSHCTVD IYREVEDTDS QKLVYHYAAS SPGPLHGVTL
SNSYQPLSVI DLKRC SARNN RTTYCYDFPL AFETA VRKSW
1601  ANVSSENNQC YVKATELVFA DKNGSWGTP I VPMQRAAGLN
DIGMVAWILD MSTPEFPSGR QIIVIANDIT FRAGSFGPRE
```

FIGURE 25B CONTINUED

1681 DAFFEAVTNL ACERKLPLIY MAANSGARIG IADEVKSCFR
VEWVDPANPE RGFKYIYLNE EDYGRISSSV IAHKTQLDSG
1761 EIRWVIDSVV GKEDGLGVEN IHGSAAIASA YSRAYEETFT
LTFVSGRTVG IGAYLARLGI RCIQRIDQPI ILTGFSALNK
1841 LLGREVYSSH MQLGGPKIMA TNGVVHLTVP DDLGGVSNIL
RWLSYVPANI GGPLPITKSL DPIDRPVAYI PENTCDPRAA
1921 ISGIDDSQ GK WLGGMFDDKS FVETFEWAK TVVTGRAKLG
GIPVGVIAVE TQTMQLVPA DPGQPDsher SVPRAGQVWF
2001 PDSATKTAQA MLDFNREGLP LFI LANWRGF SGGQRDLFEG
ILQAGSTIVE NLR TYNQPAF VYIPKAAELR GGAWVIDSK
2081 INPDRIECYA ETTAKGNVLE PQGLIEIKFR SEDLQDCMDR
LDPELVNLKA KLGAKHENG SLSDGESLQK SIEARKKQLL
2161 PLYTQIAVRF AELHDTSLRM LAKGVIRKVV DWEESRSFFY
KRLRRRISED VLAKEIRGVI GEKFSHKSAV ELIKKWMAS
2241 EAAEAGSTDW DDDDAFVAWR ENPENYEEHI KELRAQRVSQ
LLSDVAGSSS DLEALPQGLS MLEKMDPSR RAEFIEEVKK
2321 VLK

FIGURE 26A

cDNA sequence of *Poa pratensis* plastidal ACCase
CAMZMU010000063 (SEQ ID NO: 975)

```
1 CTTGGTTGTT TAAACTTACT GAGAGGTCGT TAATCAATCT
ATTAAGTTCT TGTTGCATGT CTCTATCTTT ATGAACTGAC
81 GATTCCTATG CGTATGCATC TGTCAGGTTT CCAAACCTGG
GGTTTACACA CTCGGTTTAT GGCAGTGTGC ATTTGAAGAA
161 CACTGCAACT CTGCTGTCTG TCCAAAGGGA GGGCAATGGG
ATCTACACAT CTGCCCATTG TTGGATTCAA TGCCTCCACG
241 ACACCATCGC TATCCACTCT TCGCCAGATA AATTCAGCTG
GTGCTGCATT CCAATCTTCT TCCCCTTCAA GGTCATCCAA
321 GAAGAAAAGT GGCCGTGTTA AGTCAATAAG GGATGATGGA
GATGGAAGCG TGTCAGACCC TGCAGGGCAT GGCCAGTCTA
401 TTCGCCAAGG TAACCCGAGG ACCATCTCCT TTATATTTTG
TGGTCAACCT CAGACTTGCA TAGATTATTT TCTTGATTGA
481 GAGCATGTTT GTTTTGGTGT AAGATATCTC GATACCGTAT
CACAAAATGA TAGTTAAGAA CAAATCGCTG CAGCAATCTG
561 TTTTGCTAGA TCCGAGCCGC ATTAGATTTT CTTATGCCTG
AGTAGACACC CTGAGCCATC CGGTGTCTGT GCATTGAGAT
641 TCGCGCAGGG ATTGGGGAAA TCAAGAATGA TCAGAAGGCT
AGCACCATCG ATTTAGACAC AATAAAATCT CTGTCAACTT
721 AGGTGTAGGT GGACTCTATT TTTTATATTC AATTTGATGT
TTTCTTAAGG GAAAGGGACA CAAAATACA TGTATGTGGC
801 TGTTTAAAGTA CGTATGACCG GATGTTTTGA TTATATAATA
GTTCTGAAAA AGGATGCCTA GAAAGATTTC TGATAAATGT
881 AGTTGAAAAA ATATAAATAA CATTCCAAAA GTTGGCAAAC
CGTTGCTTCT TCTTAGCTGT TGTGTAGGCT TGCTCAGTTT
961 CCAATGCATA TTTGGATGTA GGTCTCGCTG GCATCATCGA
CCTCCCAAAG GAGGGCGCAT CAGCTCCGGA AGTGGACATT
1041 TCACAGTAAG TACTTCAGCA CACTTACATT GTAGCTTAGT
TCTCTTGAAA GAACGGGGAA AAAATTTATA ACACATTTAT
1121 AGTTCCTAGA TTTCACTTGT CTTATTATCG GTACGCTTAA
ATGTTGAAGT CGTAAATTCG TTATTTGCAT AGATTTACAC
1201 TTCTATACAT CATAGTTATA CACTATGCAC CTGCTGTGAG
TTCCAAAAAT TGAACCATTG TCATGTGGTG CACTGCAATC
1281 TGTAAGGTCT TATTTCTGAT ATAATATAGC AATAAATCAT
GTACAACCTC GTTACACTGA CCATGGTAAT GATATTGCTC
1361 TTTCTTTTCT AGTGGGTCTG AAGACCACAG GGGCTCCTAC
CAAATGAATG GGATACTGAA TGAATCACAT AACGGGAAGC
1441 ACGCCTCTCT ATCTAAGGTG GTTGAATTTT GTATGGCATT
GGGTGGAAAA ACACCAATTC ACAGTGTGTT AGTTGCCAAC
1521 AATGGAATGG CAGCAGCCAA GTTCATGCGG AGTGTCCGGA
CATGGGCTAA CGATACATTT GGGTCAGAGA AGGCGATTCA
1601 GTTGATAGCT ATGGCAACTC CGGAAGACAT GAGAATAAAT
GCAGAGCACA TTAGAATAGC TGATCAGTTT GTTGAAGTAC
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FIGURE 26A CONTINUED

1681 CTGGTGGAAAC AAACAATAAC AACTATGCAA ATGTCCAACT
CATAGTGGAG GTCAGTGTTG ATCAGCCCTT GATGTGCAAT
1761 TTATGCACGA GTCCTCTTTT GTTCTCTGGC ATGACATGGC
AACTTCACTT TTGTAGATAG CAGAGAGAAC AGGTGTTTCT
1841 GCCGTTTGGC CTGGTTGGGG CCATGCATCT GAGAATCCTG
AACTTCCAGA TGCACTAACG GCAAAAGGAA TTGTTTTTCT
1921 TGGGCCACCA GCATCATCAA TGAACGCACT AGGTGACAAG
GTTGGTTCAG CTCTCATTGC TCAAGCAGCA GGGGTTCCGA
2001 CTCTTGCTTG GAGTGGATCA CATGTAAGCC TCACATTCTC
TCTGATAACT CATCGCTTGA TATTTGTGGT GGATGCATCT
2081 TGTAACCTAA TGGCACTTTA TTATAGGTGG AAATTCCATT
AGAACTTTGT TTGGACTCGA TACCCGAGGA GATGTATAGG
2161 AAAGCTTGTG TTAACCGC GGATGAAGCA GTTGCAAGTT
GTCAGATGAT TGGCTATCCT GCCATGATCA AGGCATCCTG
2241 GGGTGGCGGT GTTAAAGGGA TTAGAAAGGT ACATTATTCA
TTTGATTGAA CTGTACCCAA GAGGTGTGGG CTGTGATATT
2321 CTGTGCGCAG TTTTAGCGCT AACCTTTTTA ACATCTTAAC
TCGATATCTC TTGCAGGTTA ATAATGATGA TGAGGTTAAA
2401 GCACTCTTTA AGCAAGTACA AGGTGAAGTT CCTGGCTCCC
CAATATTTAT CATGAGACTT GCATCTCAGG TTAGACTTCT
2481 CTGAAATTTT TATTTTCCAA GCATGCCGTT TCTGAGTTGT
ATATTGTACG TATGGAAGCT TCCTTTGCTC ATCCTTGCGC
2561 GCTAGAATTG TAGTCTGTAA TCTGTAACAT GGTAATTTTC
ATTTTAATCC CTCTCCCCTT TCCTTTTGTA GAGTCGACAT
2641 CTTGAAGTCC AGCTGCTTTG TGATCAATAT GGCAATGTAG
CAGCACTTCA CAGTCGTGAT TGCAGTGTGC AACGACGACA
2721 CAAAAGGTA TGCTGCTGTG AAACAATCGC TTTTATTACA
GATCACCTGT AGTTTTGATC AAATGGTTCA ACTGTCTCCA
2801 TTTTTTTTTG TAACAGATTA TTGAGGAAGG ACCAGTTACT
GTTGCTCCTC GTGAGACAGT AAAAGAGCTA GAGCAAGCAG
2881 CAAGGAGGCT TGCTAAGGCT GTGGGTTATG TTGGTGCTGC
CACTGTTGAA TATCTCTACA GCATGGAGAC TGGTGAATAC
2961 TATTTTCTGG AGCTTAATCC ACGGTTGCAG GTTTGTTCTT
TTGAACACTC TTCAGGACTT CTATTTTGTT AGCAGTCGTT
3041 TACATTGTTA AATGGTCTAC ATTCAGGTTG AGCACCCAGT
CACTGAGTGG ATAGCTGAAG TAAATTTGCC TGCAGCTCAA
3121 GTTGCAAGTT GAATGGGTAT ACCCCTTTGG CAGGTTCCAG
GTAATAATAA TATCATTATA AAATATTTAT TTTCTGTCCC
3201 ATGTTATTTT TCTGTCTAAC TATCTCCTTA TTCAGAGATC
AGGCGTTTCT ACGGAATGGA CAATGGAGGA GGCTACGATA
3281 TTTGGAGGAA AACAGCAGCT CTTGCTACTC CATTCAACTT
TGATGAAGTA GATTCTCAAT GGCCGAAGGG TCATTGTGTA
3361 GCAGTTAGGA TAACTAGTGA GAATCCAGAT GATGGATTCA
AGCCTACTGG TGGAAAAGTA AAGGTGGGAT TTCCTAATGT

FIGURE 26A CONTINUED

3441 GATATCTATG TTTCAATTAC ACTAGGGTAA GTAAACTGAC
CTGATCTTGA CTTTTTCGTA TATTTTCAGGA GATAAGCTTT
3521 AAAAGTAAGC CGAATGTCTG GGGATATTTT TCAGTTAAGG
TAAGCTGTTC ATAGCTCTGT CGCAGTGTCA TGTGTTTTT
3601 AGTTCCGCAG AAAATTAGTC TGCAAGATGT TTTATTCGAA
TTAGTATTCT CATTTGGGTT TTGACCAAGT ATTGATCCAA
3681 TCAACAATTT TTTTCTCCC CTTCATCTGT TTTCAGTCTG
GTGGAGGCAT TCATGAATTT GCGGATTCTC AGTTTGGTAT
3761 GTTAAATTTG ACCCGGTGCA TATTCCTCTT TGCTATACGA
AGTGATCCTT ACACTGGAAA TTTCTCCTTC CATTACAGGA
3841 CATGTTTTTG CCTATGGAGT GACTAGATCA GCAGCAATAA
CCAACATGTC TCTTGCATTA AAAGAGATTC AAATTCGTGG
3921 AGAAATTCAT ACAAACGTTG ATTACACTGT TGATCTCTTG
AATGTAAGTA ACAATAACAA CTTGTTGAAT CCTACTTTTG
4001 ATGTAATACA ACCATTTTAT ATCCGGCTTT CCTTCAAAAT
AATCCCATGC TGTGATTTCC GGTATCTTTA ATTCAGGCCC
4081 CAGACTTCAG AGAAAACACG ATCCATACTG GCTGGCTGGA
TACTAGAATA GCTATGCGTG TGCAAGCTGA GAGGCCTCCC
4161 TGGTATATTT CAGTGGTCGG AGGAGCTCTA TATGTAAGAT
AAAAAATAT TTAAATATTA CTGCAACTTT TGGCAAGCCA
4241 ATTGTGAAAA ACATAATTAG TGTTTAATTG AAATAATTGT
TTTGTGCTGT AGAAAACAAT AACGGCCAAC GCGGACACCG
4321 TTTCTGAATA TGTTAGCTAT CTCATCAAGG GTCAGATTCC
ACCAAAGGTA TTGTCTTAAT GGGCTTAAAC TCTGTATATT
4401 GCTTGAAGGT GAACATTTCT GACCATTGTT TTTGTGCAGC
ATATATCCCT TGTCCATTCA ACTATTTCTT TGAATATAGA
4481 GGAAAGCAAA TATACAGTAA GTGTGGCATT CCTAAAAGAA
AGACTCTCAG TTATAATGAA ATGATAGCTA CAACTGATGC
4561 TCATCTGCAC CATGTCACAG ATTGAGATTG TGAGGACTGG
ACAGGGTAGC TACAGATTGA GAATGAATGG ATCACTTATA
4641 GAAGCAAATG TTCAAACACT ATGTGATGGT GGCCTTTTAA
TGCAGGTACC TTCTTTCTTT ATACTTGCTC ATAAATGTGA
4721 TCTAGTACTG CTTTAAGAGT TCTGATCCCT TAGTTGTAAT
TTCTCCAGCT GGATGGAAAC AGCCATGTTA TTTATGCTGA
4801 AGAAGAAGCG GGTGGTACAC GGCTTCTTAT TGATGGAAAG
ACATGCTTGT TGCAGGTAAG AATATGTCTG TCTGTCTGTC
4881 TGTTCCCTTA CTTATAATCG TAGTGTTTGA TGGTAGGACT
TCATATGCTT AATTATGATT TGTTACTGCA TTCACCATTT
4961 GGCCATTAGC ACTTTTTTAA ACACTTCATT TTGAAAGATA
GGATAAATCG GTATTATGAA GTAATGGATG GTACAGCATG
5041 ATGTTTTTCG AGATCTATTC TATTTCAATG GTAAACGTCA
CTGCGTAAGC AGCCAGACAC ATCAGGTGAT ATTAAATTTT
5121 ATCGACAGCA GGGCATGTGA TGTATAAGGA CAACTTACAT
ATCTGCAATA TAGCTAAGAG GGTCCAGTT CTGTTATATT

FIGURE 26A CONTINUED

5201 GATTCTTCTG TTTCTCAATT CTTGTTTCTC CAACGACACT
ATTTAGTATT TTCAACAATC ATTAATTTAT CATAATACGG
5281 CGCAAAAAAA GGTTAGAAGG TGCCTTTAA CACTGTCAC
TAACCTATGA AAAGCTTGTG ATCAAATCAT TTTAGTGATA
5361 CAAAAGAACA ATTGAATCCT TTATGAAATT TTCGTTCACT
AATAATTTAT GATTCTTGAT CACGCTGCAT TGTATCCTCA
5441 ACTAAATAAT GACAAATCGT TTTGCAGAAT GATCATGATC
CGTCAAGGTT ATTAGCTGAG ACACCCTGTA AACTTCTTCG
5521 TTTCTTGATT GCCGATGGTG CTCATGTTGA TGCTGATGTA
CCATATGCCG AAGTTGAGGT TATGAAGATG TGCATGCCCC
5601 TCTTGTCGCC TGCTGCTGGT GTCATTAATG TTTTGTGTC
TGAGGGCCAG GCGATGCAGG TTATATTACT GCACTTTAGT
5681 TGCTTCTGCT GTTAATAACC ATTGCATGTG AAGCATCTGA
AGTTAATATT TTTTTCAGGC TGGTGATCTT ATAGCGAGAC
5761 TTGATCTCGA TGACCCTTCT GCTGTGAAGA GAGCTGAACC
ATTCGAAGGA TCTTTTCCAG AAATGAGCCT TCCTATTGCT
5841 GCTTCTGGCC AAGTTCACAA AAGATGTGCT GCAAGTTTGA
ATGCTGCTCG AATGGTCCTT GCAGGATATG ACCACGCTGT
5921 CAACAAAGTA AACATCAAGA ACCCTATATA TCTATTATTT
TGTCTCATAT TTCCTGGTTT TCTCAAATAC CATTTTTTAA
6001 TATTAAGAAT TCTGGATTAT TCTGAGTTCC TCATTAGCTT
TATCTTCCTT TCGCTACCAA ATGGTTTCTT ATCTAGAAGT
6081 TCTTGACGCT TGTCTTCGCA AATCTTGATT TTAATGCTTT
TCTCTTATGT TCATCATACT CATTTATGAT ATAGGTCGTA
6161 TTTACCCTTC TGCTATTTTT CTTTCTCTCA GTAAATCATG
ATAGGGATGC TCTTTCCCTT ATGTGCGTCA TGCTCAGTAC
6241 TTATTATATA AATCGTATTT ATCCCTGTGC TATTTTTCTT
TCTTTCATAA TTGATGTTTT GGTGATGG TTCCTGATCA
6321 AACTTAGCAT TTGATTACTT TTTCCATTTT ACTTGCCTTC
TTTTTCAGGT TGTACAAGAT TTGGTATTGT GCCTAGATAC
6401 ACCTGAGCTT CCTTTCCTAC AATGGGAAGA GCTTATGTCT
GTTTTAGCAA CTAGACTTCC AAGACGTCTT AAGAGTGAGG
6481 TATGTGATAA TTGATTTAAT ATGCAGAATC TGGCATAAAG
GGACATTGGT ACATTTAATG TATGATAAGA AGGGTCTTAA
6561 CCCTCAGCTA AAAGATCATG TCACGTATCG TGATTTACAT
TCTACATTGT TCAATCACCT TGGTAATTTG CCTTAACTTA
6641 TAGTGCAACT TTTAGCTTCA TTCTAATAAT GTAATTAACA
TTCAAAATAT TTCACTTCAA GCTTCGTAAC ATTTTCGTA
6721 TATTTAAAGT TCTTATTTGA TTTTAAACCA GTTCTTGTT
ATTGCTTTTC TATGCCTCTT GTGTTCTGCC TCAACGGTTT
6801 CTAATTTTTA TGCATCCAGT TGGAGGGTAA ATACAGTGAA
TATAAGTTAA GTGTTGACCA TGTGAAGATC AAGGATTTCC
6881 CCACCGAGAT GCTTAGAGAG ACAATTGAGG TTAGTTTTTG
GTTTCTTATG GCATCCTAGT CTATATTGTA CTATGTTTTG

FIGURE 26A CONTINUED

6961 TAACAAGTTT TCTTTTAGGA AAATCTTTCA TATGTTTCTG
AGAACGAAAT GGCGACAATT GAGAGGCTTG TTGACCCTCT
7041 GATGAGCCTA CTGAAGTCAT ATGAGGGTGG GAGAGAAAAGC
CATGCCCACT TTATTGTCAA GTCCCTTTTC GAGGAGTATC
7121 TCTTGGTTGA GGAAGTATTC AGTGATGGCA TTCAGGTTAT
CTTACATTTT AAAACTGAGC AGATCTACTT GATTCAATTTT
7201 CTAGGGGTCG TTATTTTCCC TTCTTTTAGT ATGAAAAATG
TATGAACTGA TGTCATTCAC GTATTATAAA TTGCATCATA
7281 ACCTTTTGGG TGATTAAGTA GCAAAAATAT ATTTTACATG
GTTTAAGACT TATTTCCCTC AGAACACTTA ACTCATTGAT
7361 TTCCTCAAAA TGTGCCATTT TGTAGTCTGA CGTGATTGAA
CGCCTGCGCC TACAACATAG TAAAGACCTC CAGAAGGTTG
7441 TAGACATTGT TTTGTCTCAC CAGGTAAATT ACCTTTTGGC
CTAATGACTT AGTGCAAGTG ATCACTGAAG CAATCTTCAT
7521 TACTGATAGT TTGATTTTTG TTCTAGGGTG TGAGAAAACAA
AACTAAGCTG ATACTTACAC TCATGGAGAA ACTGGTCTAT
7601 CCAAACCCTG CTGCCTACAG GGATCAGCTG ATTCGCTTTT
CTTCCCTCAA CCATAAAAGA TATTATAAGG TGACAATTAC
7681 GACCTAAAGT AATGGAAGCT TTTTGAATAA TTTTGCTGTG
ATATCTTTGG CTAATGAATT ACTTTCATGG TAATAATGCA
7761 GTTGGCCCTT AAAGCTAGTG AACTTCTTGA ACAAACCAAG
CTCAGTGAAC TCCGCACAAG CATTGCAAGG AACCTTTCAG
7841 CGCTGGAGAT GTTCACGGAG GAAAGGGAAG GTTTCTCCTT
GCAAGACAGA AAATTGGCCA TTAATGACAG CATGGAAGAT
7921 TTAGTCACTG CCCCATTTGCC AGTTGAAGAT GCACTTGTTT
CTTTGTTTGA TTGTAGTGAT CAATCTCTTC AGCAGAGAGT
8001 GATTGAGACA TATATATCTC GACTGTACCA GGTATTGCAT
GAGCTATGTT TTTTTTGATT TATTATACTC TCCCTCAGCA
8081 TTTCTGGAAG CATAACAATA AGTGCTCAGT TAAAATAAAT
CCTAGATAAT CTAGGTGTGG GAAGATTTGA TTTAGAACTA
8161 CTTGTGACAT GTTACTGCTC TGTAAGTTGG CTAAGTTGCC
AATGATATTT TCAGCCTCAA CTTGTGAAGG ATAGTATTCA
8241 GCTGAAATGT CAGGATTCTG GTGTTACCGC TTTATGGGAA
TTCATGAAG GGCATCCTGA GAAGAGATTG GGTGCTATGG
8321 TTATCCTGAA ATCACTAGAA TCTGTGTCAA CAGCCATTGG
AGCTGCTCTA AAGGATACAT CACAGTATGC AAGCTCTGCG
8401 GGTAACACGG TGCATATTGC TTTGTTGGAT GCTGATACCC
AAATGAATAC AACTGAAGAT AGGTATGTTT ATGTGCAGTG
8481 TTAGTGCCGA TGAGTTTGCT TTGTGATTCT TAAAATAAAT
TGATCTATTT CTTTCAGTGG TGATAATGAC CAAGCTCAAG
8561 ATAGGATGGA CAACTTTTCT GCGATACTGA AACAAGATAT
TGTCACCGCT GATCTACGTG CTGCTGGAGT CAAGATTATT
8641 AGTTGCATTG TTCAAAGAGA TGGAGCACTC ATGCCTATGC
GCCGTACCTT CCTCTTGTC AAGGAAAAGC TTTGTTATGA

FIGURE 26A CONTINUED

8721 GGAAGAGCCG ATTCTTCGGC ATGTGGAGCC TCCACTTTCT
GCACTTCTTG AGTTGGTATG TAACTCCATC AAAGTACTG
8801 CACGGTTTTT TGATACACTT TAATGCCTTT TGTTTTATTA
TTTGCTACTT GTATTAATTT AGCCTACTAT TGATACAGGA
8881 TAAATTGAAA GTGAAAGGAT ACAATGAGAT GAAGTATACA
CCATCACGTG ATCGTCAATG GCATATATAC AACTTAGAA
8961 ATACTGAAAA TCCCAAAATG TTGCACAGGG TATTTTTCCG
AACTCTTGTC AGACAACCCA GTGCTGGCAA CAGGTTTACA
9041 TCCGGCCATA TCAGTGATGT TGAAGTGGGA CATGCTGAGG
AATCTCTTTC ATCTACATCA AGCAGCATAT TAAGATCGTT
9121 GATGACTGCT ATAGAAGAAT TGGAGCTTCA CGCGATCAGG
ACTGGCCATT CTCATATGTA CTTGTGCATA TTGAAAGAGC
9201 AAAAGCTTCT TGACCTCGTT CCTGTTTCAG GGTAAGCTTG
CATATCGTTC TTTTTCGCGA ACATATATTC CTTGCTCTTC
9281 TGTTTAGCCT TCTCAACAAG CTTTTCATCT TACTCAGGAA
CACTGTTGTG GATGTTGGTC AAGATGAAGC TACTGCATGC
9361 TCTCTTTTGA AAGAAATGGC TCTAAAGATA CATGAGCTTG
TTGGTGCAAG AATGCATCAT CTTTCTGTAT GCCAATGGGA
9441 AGTGAAACTT AAGTTGGACA GCGATGGGCC TGCCAGTGGT
AGCTGGAGAG TTGTAACAAC TAATGTTACT GGTCACACCT
9521 GCACTGTGGA TGTAAGTTTT ATCCCCTTGC CTGCATGGAA
CTAATGAAAC TAAAGTGGAC ATATGCCACT TATACATGGA
9601 ACTATCATCT TTGATTCTCA TAAAATAAGC TATCATCTTC
GTTTAGTTTG TTATCATTTT CACCTCGTTT ATGGTCTGAA
9681 GCTCATGGTG CTTTTGATGC TTTTAGATCT ACCGGGAGGT
CGAAGATACA GAATCACAGA AACTAGTATA CCACTCTGCC
9761 GCACCGTCAT CTGGTCCTTT GCATGGTGTC GCACTGAATA
ATTCGTATCA GCCTTTGAGT GTTATTGATC TAAAACGATG
9841 CTCTGCTAGG AACAACAGAA CGACATACTG CTATGATTTT
CCATTGGTTA GTATCTATCT CTCTCTATAT TATGTTAGCA
9921 GGTTTGTATT GGTATTACAT GTCCTAAATC TGACATGAAC
TCAAAAATGT AGGCATTCTGA AACTGCAGTG CGGAAGTCAT
10001 GGTCTAACAT TTCCAGTGAA AGCAACCAAT GTTATGTTAA
AGCGACAGAG CTGGTGTTTG CTGAAAAGAA TGGGTCGTGG
10081 GGCATCCTA TAATTCCTAT GCAGCGTGCT GCTGGGCTCA
ATGACATTGG TATGGTGGCC TGGATCTTGG ACATGTCCAC
10161 TCCTGAATTT CCCAGTGGCA GACAGATTAT TGTTATCGCA
AATGATATTA CTTTTAGAGC TGGATCATTT GGCCAAGGG
10241 AAGATGCATT TTTTGAACT GTTACCAACC TAGCTTGTGA
GAAGAAGCTT CCACTTATCT ACTTGGCTGC AAAGTCTGGT
10321 GCTCGGATTG GCATTGCTGA TGAAGTAAAA TCTTGCTTCC
GTGTTGCATG GAATGATGAT AGCTGCCCTG AACGTGGATT
10401 TGACTACCAA TATCTGACTG AAGAAGACTA TGGTCGTATT
AGCTCTTCAG TTATAGCGCA CAAGATGCAG CTAGATAGTG

FIGURE 26A CONTINUED

10481 GCGAAATTAG GTGGGTTATC GATTCTGTTG TGGGGAAGGA
GGATGGACTA GGCGTGGAGA ACATACATGG AAGTGCTGCT
10561 ATTGCCAGTG CTTATTCTAG GGCATACGAG GAGACATTTA
CACTTACATT TGTTACTGGA CGAACTGTTG GAATAGGAGC
10641 CTATCTTGCT CGACTTGGCA TACGGTGCAT ACAGCGTACT
GACCAGCCCA TTATTTTGAC CGGGTATTCT GCCCTGAACA
10721 AGCTTCTCGG GCGGGAAGTG TACAGCTCCC ACATGCAGTT
GGGTGGTCCC AAAATCATGG CGACCAATGG TGTTGTCCAT
10801 CTGACTGTTC CAGATGACCT TGAAGGTGTT TCTAATATAC
TGAGGTGGCT CAGCTATGTT CCTGCAAACA TTGGTGGACC
10881 TCTTCCTATT ACAAATCTT TGGACCCAAT AGACAGACCC
GTTGCATACA TCCCTGAGAA TACATGTGAT CCTCGTGCAG
10961 CTATCAGCGG CATTGATGAC AGCCAAGGGA AATGGTTGGG
TGGCATGTTT GACAAAGACA GTTTTGTGGA GACATTTGAA
11041 GGATGGGCGA AGACAGTAGT TACTGGCAGA GCAAACTTG
GAGGGATTCC TGTGGGTGTT ATAGCTGTGG AGACACAGAC
11121 CATGATGCAG CTCGTCCCCG CTGATCCAGG CCAGCCTGAT
TCCCATGAGC GGTCTGTTCC TCGTGCTGGG CAAGTCTGGT
11201 TTCCAGATTC TGCTACTAAG ACGGCGCAGG CGATGTTGGA
CTTCAACCGT GAAGGATTAC CTCTGTTCAT CCTTGCAAAC
11281 TGGAGAGGCT TCTCTGGTGG GCAAAGAGAT CTTTTTGAAG
GAATTCTGCA GGCTGGGTCA ACAATTGTTG AGAACCTTAG
11361 GACATACAAT CAGCCTGCCT TTGTATATAT CCCCAGGCT
GCAGAGCTAC GTGGAGGGGC TTGGGTCGTG ATTGATAGCA
11441 AGATAAACCC AGATCGGATT GAGTGCTACG CTGAGAGGAC
CGCAAAGGGC AATGTTCTCG AACCTCAAGG GTTGATTGAG
11521 ATCAAGTTCA GGTCAGAGGA GCTCCAAGAA TGCATGGGTA
GGCTTGATCC ACAATTGATA AGTATGAAAG CAGAACTCGA
11601 GGGAGCAAAG CATGAAAATG GAAGTCTATC TGACGTTGAA
TCCCTTCAGA AGAGCATAGA AGCTCGAAAG AAACACTTGC
11681 TGCCTTTGTA CACTCAAATC GCGGTACGGT TTGCTGAATT
GCATGACACT TCCCTCAGAA TGGCTGCTAA AGGTGTGATC
11761 AGGAAAGTTG TAGACTGGGA AGACTCTCGG TCTTTCTTCT
ACAAGAGATT ACGGAGGAGG ATATCCGAGG ACGTTCTTGC
11841 GAAGGAAATT AGAGGAGTAA TTGGTGAGAA GTTTTCTCAT
AAATCAGCGG TCGAGCTGAT CAAGAAATGG TACTTGGCTT
11921 CTGAGGCAGC TGTAGCAGGA AGCACCAGCT GGGATGATGA
TGATGCTTTT GTTGCCTGGA GGGAGAACCC TGAAAACAT
12001 AAGGAGTATA TCAAAGAGCT TAGGGCTCAA AGGGTATCTC
AGTTGCTCTC AGATGTTGCA GGCTCCACTT CAGATTTGCA
12081 AGCCTTGCCG CAGGGTCTTT CCATGCTACT AGATAAGGTA
CGCATACTTA CGGCTTTACC TGCATCTGTT TATTTGCAAG
12161 TAGTTTGTCT AGGTTGAGTA AAATGTGGCC ACCTTCATAT
GCACTTGTAT GTTACCAAAC AATGCTGCTA TGTTTTCATA

FIGURE 26A CONTINUED

12241 CATAGTATCG TATGAAATAA TGTCTAAGAC GCTTTTCTTT
GGAAACTTTG TTCAGATGGA TCCCTCTAAG AGAGCACAGT
12321 TTATTGAGGA AGTCAGGAAG GTCCTGAAAT GATGGAAATG
ATACCAACAC ATCCAATACA ATATGTGCAT GATATCTGTT
12401 TCTCTTGAAG TACATATATA GAAGGATAAT CTTGGCCAAC
CATTATTTTT GTGAACTTGT TGGTGGTCTT TATTATTCAA
12481 GGTTGCTTTC GGACCCCCTC C

FIGURE 26B (SEQ ID NO: 976)

Poa pratensis plastidal ACCase CAMZMU010000063 (SEQ ID NO: 976)

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1  MGSTHLPIVG FNASTTPSLS TLRQINSAGA AFQSSSPSRS
SKKKSGRVKS IRDDGDGSVS DPAGHGQSIR QGLAGIIDLP
81  KEGASAPEVD ISHGSEDHRG SYQMNGILNE SHNGKHASLS
KVVEFCMALG GKTPIHSVLV ANNGMAAAKF MRSVRTWAND
161  TFGSEKAIQL IAMATPEDMR INAEHIRIAD QFVEVPGGTN
NNNYANVQLI VEIAERTGVS AVWPGWGHAS ENPELPDALT
241  AKGIVFLGPP ASSMNALGDK VGSALIAQAA GVPTLAWSGS
HVEIPLELCL DSIPEEMYRK ACVTTADEAV ASCQMIGYPA
321  MIKASWGGGG KGIRKVNND EVKALFKQVQ GEVPGSPIFI
MRLASQSRHL EVQLLCDQYG NVAALHSRDC SVQRRHQKII
401  EEGPVTVAPR ETVKELEQAA RRLAKAVGYV GAATVEYLYS
METGEYYFLE LNPRLQVEHP VTEWIAEVNL PAAQVAVGMG
481  IPLWQVPEIR RFYGMDNGGG YDIWRKTAAL ATPFNFDEVD
SQWPKGHCVA VRITSENPDD GFKPTGGKVK EISFKSKPNV
561  WGYFSVKSGG GIHEFADSQF GHVFAYGVTR SAAITNMSLA
LKEIQIRGEI HTNVDYTVDL LNAPDFRENT IHTGWLDTRI
641  AMRVQAERPP WYISVVGAL YKTITANADT VSEYVSYLIK
GQIPPKHISL VHSTISLNIE ESKYTIEIVR TGQGSYRLRM
721  NGSLIEANVQ TLCDGGLLMQ LDGNSHVIYA EEEAGGTRLL
IDGKTCLLQN DHDP SRLAE TPCKLLRFLI ADGAHV DADV
801  PYAEVEVMKM CMPLLSPAAG VINVLLSEGQ AMQAGDLIAR
LDLDDPSAVK RAEPFEGSFP EMSLPAAASG QVHKRCAASL
881  NAARMVLAGY DHAVNKVVQD LVLCLDTPEL PFLQWHEELMS
VLATRLPRRL KSELEGKYSE YKLSVDHVKI KDFPTEMLRE
961  TIEENLSYVS ENEMATIERL VDPLMSLLKS YEGGRESHAH
FIVKSLFEY LLVEELFSDG IQSDVIERLR LQHSKDLQKV
1041  VDIVLSHQGV RNKTKLILTL MEKLVYPNPA AYRDQLIRFS
SLNHKRYYKL ALKASELLEQ TKLSELRTSI ARNLSALEMF
1121  TEEREGFSLQ DRKLAINDSM EDLVTAPLPV EDALVSLFDC
SDQSLQQRVI ETYISRLYQP QLVKDSIQLK CQDSGV TALW
1201  EFTEGHPEKR LGAMVILKSL ESVSTAIGAA LKDTSQYASS
AGNTVHIALL DADTQMNTTE DSGDNDQAQD RMDKLSAILK
1281  QDIVTADLRA AGVKIISCIV QRDGALMPMR RTFLLSEEKL
CYEEEPILRH VEPPLSALLE LDKLKVKGYN EMKYTPSRDR
1361  QWHIYTLRNT ENPKMLHRVF FRTLVRQPSA GNRFTSGHIS
DVEVGHAES LSSTSSSILR SLMTAIEELE LHAIRTGHSH
1441  MYLCILKEQK LLDLVPVSGN TVVDVGQDEA TACSLLKEMA
LKIHELVGAR MHHL SVCWE VKLKLSDGP ASGSRVVT
1521  NVTGHTCTVD IYREVEDTES QKLVYHSAAP SSGPLHGVAL
NNSYQPLSVI DLKRC SARNN RTTYCYDFPL AFETA VRKSW
1601  SNISSESNQC YVKATELVFA EKNGSWGTP IPMQRAAGLN
DIGMVAWILD MSTPEFPSGR QIIVIANDIT FRAGSFGPRE
```

FIGURE 26B CONTINUED

1681 DAFFETVTNL ACEKKLPLIY LAANSGARIG IADEVKSCFR
VAWNDDSCPE RGFYQYLTE EDYGRISSSV IAHKMQLDSG
1761 EIRWVIDSVV GKEDGLGVEN IHGSAAIASA YSRAYEETFT
LTFVTGRTVG IGAYLARLGI RCIQRTDQPI ILTGYSALNK
1841 LLGREVYSSH MQLGGPKIMA TNGVVHLTVP DDLEGVSNIL
RWLSYVPANI GGPLPITKSL DPIDRPVAYI PENTCDPRAA
1921 ISGIDDSQK WLGGMFDKDS FVETFEGWAK TVVTGRAKLG
GIPVGVIAVE TQTMQLVPA DPGQPDsher SVPRAGQVWF
2001 PDSATKTAQA MLDFNREGLP LFI LANWRGF SGGQRDLFEG
ILQAGSTIVE NLR TYNQPAF VYIPKAAELR GGAWVIDSK
2081 INPDRIECYA ERTAKGNVLE PQGLIEIKFR SEELQECMGR
LDPQLISMKA ELEGAKHENG SLSDVESLQK SIEARKKHL
2161 PLYTQIAVRF AELHDTSLRM AAKGVIRKVV DWEDSRsFFY
KRLRRRISED VLAKEIRGVI GEKFSHKSAV ELIKKWYLAS
2241 EAAVAGSTDW DDDDAFVAWR ENPENYKEYI KELRAQRVSQ
LLSDVAGSTS DLQALPQGLS MLLDKMDPSK RAQFIEEVRK
2321 VLK

FIGURE 27A

cDNA sequence of *Poa pratensis* plastidal ACCase
CAMZMU010000098 (SEQ ID NO: 977)

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1 TTCATTGGAG GATTGCGTTT CTGACCTATT TTAGTCCTAG
AGCATTTTGG TTGTTTAAAC TTAGTGAGAG GTCGTTAATC
81 AATCCATAAA GTTCTTTTTG CATGTCTCTA TCTCTATGAA
CTGACGATTC CTATGTTTAT GCATCTGTCA GGTTTCCAAA
161 CCTGGGGTTT ACACACGCAG TTTATGGCAC TGTGCATCTG
AAGAACACTG CAACTCTGCT GTCTGTCCAA AGGGAGGGCA
241 ATGGGATCCA CGCATTTGCC CATCGTTGGA TTTAATGCCT
CCACAACACC ATCGCTATCC ACTCTTCGCC AGATAAATTC
321 AGCTGGTGCT GCATTCCAAT CTTCTTCCCC TTCAAGATCT
TCCAAGAAGA AAAGTCGCCG TGTTAAGTCA ATAAGGGATG
401 ACGGCGATGG AAGCGTGTCA GACCCTGCAG GGCATGGCCA
GTCTATTTCG CAAGGTAACC CGAGGACCAT CTCCTTTATA
481 TTTTGTGGTC AACCTCAGAC TTGCATAGAT TATTTTCTTT
GATTGAGAGC ATGATTGTTT TGGTGTATAA GATATCTCAA
561 TACCGTATCA CAAAATGATA CGTAGTTAAG AACAAATCGC
TGCAGCAATC TGTTTAGCTA GATCTGAGTC GCATTAGATT
641 TTCTTATGTC TAAGTAGACA CCCTGAGCCA TCCGGTGTCT
GTGCATTGAG ATTCGCGCAT GGATTGGGGA AATCAAGATT
721 GATCAGAAGG CTAGCACCAT CAACATAGAC ATAATAAAAT
CTCTGTCAAC TTAGGTGTAG ATGGACTCTA TTTTAAATAT
801 TCAGTTTGAG GTTTTCTTAA GAGAAAGGGA CACAAAAATA
CATGTATGTC GCAGTTTAAG TATGTATGAC GGAGTGTTTT
881 GATTATATAA TAGTTCTGGA AAAGAAGGAT GCCTAGAAAG
ATTTTCTGAT AAATGTAGTT GAAAAAATAA AAGTAACATT
961 CAAAAGTTG GCAAACTGTT GCTTCTTCTT AGCTGTTGTG
TAGGCTTGCT CAGTTTCCAA TGCATATTTG GATGTAGGTC
1041 TCGCTGGCAT CATCGATCTC CCAAAGGAGG GCGCATCAGC
TCCGGAAGTG GACATTTTAC AGTAAGTACT TCAGCACACT
1121 TACATTGTAG CTCAGTTATC TTGAAAGAAC ATGGAAAAAT
TTATAACACA TTTATAATTC CTAGATTTCA CTTGTCTTAT
1201 TATCGGTACG CTTAAATGTT CAAGTCGTAA ATTCGTTATT
CTCATAGATT TACACTTCTA TACACCATAG TTATACACTA
1281 TGCACCTGCT GTGAGTTCCA AAAATTGAAC CATTGTCATG
TGGTGCACCTG CAATCTGTAA GGTTTTATTT TTGATATAAT
1361 ATAGCTATAA ATCATGTACA ACCTCGTTAC AGTGACCATG
GTAATGACTT TGCTCTTTCT TTGTTAGTGG GTCTGAAGAC
1441 CACAGGGGCT CCTACCAAAT GAATGGGATA CTGAATGAAT
CACATAACGG GAAGCACGCC TCTCTATCTA AGGTCGTTGA
1521 GTTTTGTATG GCATTGGGTG GAAAAACACC AATTCACAGT
GTATTAGTCG CCAACAATGG AATGGCAGCA GCTAAGTTCA
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FIGURE 27A CONTINUED

1601 TCGGAGTGT CCGGACATGG GCTAATGATA CATTTGGGTC
AGAGAAGGCG ATTCAGTTGA TAGCTATGGC AACTCCGGAA
1681 GACATGAGAA TAAATGCAGA GCACATTAGA ATAGCTGATC
AGTTTGTGTA AGTACCTGGT GGAACAAACA ATAACAATA
1761 TGCAAATGTC CAACTCATAG TGGAGGTCAG TATTGGTCAT
CCCTTGATGT GCAATTTATG CACGAGCTCC TCTTTGTTCT
1841 TTTAGTATGA CATGGCAACT TCACTTTTGT AGATAGCAGA
GAGAACAGGT GTTTCTGCCG TTTGGCCTGG TTGGGGCCAT
1921 GCATCTGAGA ATCCTGAACT TCCAGATGCA CTAACGGCAA
AAGGAATTGT TTTTCTTGGG CCACCAGCAT CATCAATGAA
2001 CGCACTAGGT GACAAGGTTG GTTCAGCTCT CATTGCTCAA
GCAGCAGGGG TTCCGACTCT TGCTTGGAGT GGATCACATG
2081 TAAGCCTCAC TTTCTCTTTG ATAACTCATC GCCTGATATT
TGTGGTGGAT GCATCTTGTA ACCTAATGGA ACTTTATTAT
2161 AGGTGGAAAT TCCATTAGAA CTTTGTTTGG ACTCGATACC
TGAGGAGATG TATAGGAAAG CTTGTGTTAC TACCGCGGAT
2241 GAAGCAGTTG CAAGTTGTCA GATGATTGGC TATCCTGCCA
TGATCAAGGC ATCCTGGGGT GCGGGTGGTA AAGGGATTAG
2321 AAAGGTACAT TATTCATTTG ATTGAAGTGT ACCCAAGAGG
TGTGGGCTGT GATATTCTGT TCGCAGTCTT AGCACTAACC
2401 TTTTAAACAT CTTAACTCGA TATCTCTTGC AGGTTAATAA
TGATGATGAG GTTAAAGCAC TCTTAAAGCA AGTACAAGGT
2481 GAAGTTCCTG GTCCTCCCAAT ATTTATCATG AGACTTGCAG
CTCAGGTTAG ACTTCTCTGG AATTTCTATT TCCTTTGCTC
2561 ATCCTTGCAG GCTAGAACTG TATTCTGTAA TCTGTAATAT
GGTAATTTTC ATTTTAAATCC CTCTCCCCTT TCCTTTTGTA
2641 GAGTCGACAT CTTGAAGTCC AGCTGCTTTG TGATCAATAT
GGCAATGTAG CAGCACTTCA CAGTCGTGAT TGCAGTGTGC
2721 AACGACGACA CAAAAGGTA TGCTGCTCCA GAGTGAAACC
ATCGCTTTTA TTACAGGTCT ACCTGTAGTT TTGATCAAAT
2801 GGTTCAACTG TCTTCATTTT TTGTTTGTG TAACAGATTA
TTGAGGAAGG ACCAGTACT GTTGCTCCTC GTGAGACAGT
2881 GAAAGAGCTA GAGCAAGCAG CAAGGAGGCT TGCTAAGGCT
GTGGGTTATG TCGGTGCTGC TACTGTCGAA TATCTCTACA
2961 GCATGGAGAC TGGTGAATAC TATTCCTGG AGCTTAATCC
ACGGTTGCAG GTTTGTTCTT TTGAACACTC TTCAGGACTT
3041 CTATTTTGTG GGCAGTCGTT TACATTGTTA AATGTTCTAC
ATTCAGGTTG AGCACCAGT CACTGAGTGG ATAGCTGAAG
3121 TAAATTTGCC TGCAGCTCAA GTTGCAGTTG GAATGGGTAT
ACCCCTTTGG CAGGTCCAG GTAATAATAA TAATATCATT
3201 GTAAAATATT TTTTCTGTG CCATGTTATT TCTGTGTCTA
ACTATCTCCT TATTCAGAGA TCAGGCGTTT CTACGGAATG
3281 GACAATGGAG GAGGCTATGA TATTTGGAGG AAAACATCAG
CTCTTGCTAC TCCATTCAAC TTTGATGAAG TAGATTCTCA

FIGURE 27A CONTINUED

3361 ATGGCCGAAG GGTCATTGTG TAGCAGTTAG GATAACTAGT
GAGAATCCAG ATGATGGATT CAAGCCTACT GGTGAAAAG
3441 TAAAGGTGGG ATTCCTAAT GTGATATCTA TGTTTCAGTT
ACACTAGGGT AAGTAAACTG ACCTGATCTT GATTTTTTCG
3521 TATATTTTCTAG GAGATAAGCT TTAAAAGTAA GCCGAATGTC
TGGGGATATT TCTCAGTTAA GGTAAGCTGT TCATAGATGG
3601 TGGAGGCAGA AATTAATCTG CAAGATGTTT AATTCGAATT
AGTATTCTCA TTTGGGTTTT GACCAAGTAT TGATCCAATC
3681 AACAAATGTT TTTTCTCCCC TTCATCTGTT TTCAGTCTGG
TGGAGGCATT CATGAATTTG CGGATTCTCA GTTTGGTATG
3761 TTAAATTTGA CCCGGTGCAT ATTCCTCTTT GCTATACGAA
CTGATCCTTA CACTGGAAAT TGCTCCTTCC ATTACAGGAC
3841 ATGTTTTTGC CTATGGAGTG ACTAGATCAG CAGCAATAAC
CAACATGTCT CTTGCATTAA AAGAGATCCA AATTCGTGGA
3921 GAAATTCATA CAAACGTTGA TTACACTGTT GATCTCTTGA
ATGTAAGTAA CAATAACAAC TTGTTGAATC CTACTTTTGA
4001 TGAAATACAA CCATTTTATA TCCGGCTTTC CTTCAAAATA
ATCCCATGCT GTGGTTTCCG GTATCTTTAA TTCAGGCCCC
4081 AGACTTCAA GAAACACGA TCCATACTGG CTGGCTGGAT
ACTAGAATAG CTATGCGTGT GCAAGCTGAG AGGCCTCCCT
4161 GGTATATTTT AGTGGTTGGA GGAGCTCTAT ATGTAAGATA
AAAACTATT TTAATGTTAC TGCAACTTTT GCAAGCCAAT
4241 TGTGAAAAAC ACAATTAGTG TTTAATTGAA ATCATTGTTT
TGTGCTGTAG AAAACAATAA CGGCCAACGC GGACACCGTT
4321 TCTGAATATG TTAGCTATCT AATCAAGGGT CAGATTCCAC
CAAAGGTATT GGCTTAATGG GCTTAACTC TGTATATTGC
4401 TTGAAGGTGA ACATTGCTGA CCATTGTTTT TGTGCAGCAT
ATATCCCTTG TCCATTCAAC TATTTCTTTG AATATAGAGG
4481 AAAGCAAATA TACAGTAAGT GTGACATTCC TAAAAGAAAG
ACTCAGTTAT AATGAAATGA TAGCTACAAC TGATGCTCAT
4561 CTGCACCATG TCACAGATTG AGATCGTGAG GAGTGGACAG
GGTAGCTACA GATTGAGAAT GAATGGATCA CTTATTGAAG
4641 CAAATGTTCA AACACTATGT GATGGTGGCC TTTTAATGCA
GGTACCTTCT TTCTTTATAC TTGCTCATAA ATGTGATCTA
4721 AGGTTGCAAA GTACTGCTTT AAGAGTTCTG ATCCTTTAGT
TGTAATTTCT CCAGCTGGAT GGAAACAGCC ATGTTATTTA
4801 TGCTGAAGAA GAAGCGGGTG GTACACGGCT TCTTATTGAT
GGAAAGACAT GCTTGTTGCA GGTAAGAATA TTCTGTCTGT
4881 CTGTTCCCTT ACTTATAATC GTAGTGTTTG ATGGTAGGAC
TTCATATGCT TAATTGTGAA TTTTACTGCT ATTCACCATT
4961 TGGCCATTAG CACTTATTTT TAAACTCTTC ATTTTGAAAA
GAAAAGATAA ATCGGTATTA TGAACATAATG GATGGTACAT
5041 CATGATGTTT TTCGAGATCT ATTCTATGTC AATGGTAAAC
GTCACGCT AAGCACTAAG CAGCCAGACA CATCAGGTGA

FIGURE 27A CONTINUED

5121 TATTAAATTT TATCGACAGC AGGGCATGTG ATGTATAAGG
ACAACTTACA TAGCTGCAAT ATAGCTAAGA GAGTTCCAGT
5201 TCTGTTATAT TGCCTTTTCT GTTCTCGAT TCTTGTTTCT
CCAACGACAC TATTTAGTAT TTTCAACAAT CATTAAATTTA
5281 TCATAATATG GCGCAAAAAA AGGTTAGAAT GTGTCCTTTA
ACACAGTCAT TTAACCTATG AAAAGCTTGT GATAAAATCA
5361 TTTTAGTGAT ACAAAGAAC AATTGAATCC TTTATGAATT
TTTCTTTCAC TAATAATTTG TGATTCTTGA TCGCATTGTA
5441 TCCTTAACTA AATAAATGAC AAATCGTTTT GCAGAATGAT
CATGATCCGT CAAGGTTATT AGCTGAGACA CCCTGCAAAC
5521 TTCTTCGTTT CTTGATTGCC GATGGTGCTC ATGTTGATGC
TGATGTGCCA TATGCGGAAG TTGAGGTTAT GAAGATGTGC
5601 ATGCCCCCTCT TGTCGCCTGC TGCTGGTGTC ATTAATGTTT
TGTTGTCTGA GGGCCAGGCG ATGCAGGTTA TATTACTGCA
5681 ACGAACTAC TGTACTTTCG TTGCTTCTGC TGTTAATAAC
CATTGCATGT GAAGCATCTG AAGTTAATAT TTTTTCAGGC
5761 TGGTGATCTT ATAGCGAGAC TTGATCTCGA TGACCCCTCA
GCTGTGAAGA GAGCTGAACC ATTCGAAGGA TCTTTTCCAG
5841 AAATGAGCCT TCCTATTGCT GCTTCTGGCC AAGTTCACAA
AAGATGCGCT GCAAGTTTGA ATGCTGCTCG AATGGTCCTT
5921 GCAGGATATG ACCATGCTGT CAACAAAGTA AACATCAAGA
ACCCTACAGT AACAATATTT TTATTATTTT GTCTCATGTT
6001 TCCGGGTTTT CTCAAATACC ATTTTTTAAT ACTCCCTCCG
ATTGGAAATG ATTGGCATAG ATTTGTCTTA GTACGGATGT
6081 ATCTAGACGT TAGATACGTC CATATTTTGA CAAATCTATG
CCAACCATTT CAGATCGGAG GGAGTATTGA GAATTCTGGA
6161 TTATTCTGAG TTCCTCGTTA GCTTTATCTT CCTTTCGCTA
CCAAATGGTT TCTAATCTAT AGAAGTTCTT GACGCTTGTC
6241 TTCGCAAATC TTGATTTTAA TGCTCTTCTC TTATGTTTAT
CATACTCATT TATGATATAG GTCGTATTTA TCCTTCTGCT
6321 ATTTTCTTTC TCTCAGTAAA TCATGATAGG GATGCTCTTT
CCCTTATGTG CGTCATGCTC AGTACTTATT ATATAAATCG
6401 TATTTATCCC TGTGCTATTT TTCTTTCTTT CATAATTGAT
GTTTTGGTTT GATGGTTCCT GATCAAACCT AGCAATTGAT
6481 TACATTTTCC TTTTTCCTTG CCTTCTTTTT CAGGTTGTAC
AAGATTTGGT ATGGTGCCTA GATACACCTG AGCTTCCTTT
6561 CCTACAATGG GAGGAGCTTA TGTCTGTTTT AGCAACTAGA
CTTCCAAGAC GTCTTAAGAG TGAGGTATGT GATAATTGAT
6641 ATAGTATGCA GAATCTGGCA TAAAGGGACA TTGATACATT
TAATTTATGA AAAGAAGGGT CTTAACCTC AGCTAAAAGA
6721 TCATGTCACG TATCGTGATT TACATTCTAC ATTGTTCAAT
CACCTTGGTA ATTTGCCTTA ACTTATTGTG CAACTTTTAG
6801 CTTTATTCTA ATAATGTAAT CAACATTCAG AATATTTTAC
TTCAATCTTC GTAACATTTG GTACTTATTT AAAGAAGTTC

FIGURE 27A CONTINUED

6881 GTATTTGATT TTAAACCAGT TCTTGTTTCAT TGCTTTTCTA
TACCTTTCTT GTGTTCTGCC TCAACGGTTT CTAATTTTTA
6961 TGCATCCAGT TGGAGGGTAA ATACAGCGAA TATAAGTTAA
ATGTTGACCA TGTGAAGATC AAGGATTTCC CCACCGAGAT
7041 GCTTAGACAG ACAATTGAGG TCAGTTTTTG GTTTCTCATG
GCATCCTAGT CTATATTGCA CTATTTTGTG TAACAAGTTT
7121 TCTTTTAGGA AAATCTTGCA TATGTTTCTG AGAATGAAAT
GGCGACAATT GAGAGGCTTG TTGACCCTCT GATGAGCCTA
7201 CTGAAGTCAT ATGAGGGTGG GAGAGAAAGC CATGCCCACT
TTATTGTCAA GTCCCTTTTC GAGGATTATC TCTTGTTTGA
7281 GGAACATTTC AGTGATGGCA TTCAGGTTAT CTTACATTTT
AAAACAGACA GATCTACTTA ATTCATTTTT AGGGGTCGTT
7361 ATTTTCCTAC TTTTAGTATG AAACATGTAT GAACTGATGT
CATTCACGTA TTACATAAGA CTTATTTCTC TCAGAACACT
7441 TCACTCATTG ATTTCTTCAA AATGTGCCAT TTTGTAGTCT
GACGTGATTG AACGCCTGCG CCTACAACAT AGTAAAGACC
7521 TCCAGAAAGT TGTAGACATT GTTTGTCTC ACCAGGTAAA
TTACCTTTTG GCCTAATGAC TTAGTGCAAG TGATCACTGA
7601 AGCAATCTTC GTTACTGATA GTTTGATTTT TGTTCTAGGG
TGTGAGAAAC AAAACTAAGC TCATACTTAC ACTCATGGAG
7681 AAAGTGGTCT ATCCAAACCC TGCTGCCTAC AGGGATCAGC
TGATTCGCTT TTCTTCCCTC AACCATAAAA GATATTATAA
7761 GGTGACACTT ACGACCTAGA GTAATGGAAG CTTTTTGAAT
AATTTTGTG TGATATCTTA GGCTAATGAA TTACTTTTCAT
7841 GGTAATAATG CAGTTGGCCC TTAAAGCTAG TGAAGTTCTT
GAACAAACCA AGCTCAGTGA ACTCCGCACA AGCATTGCCA
7921 GGAACCTTTC AGCGCTGGAG ATGTTACCGG AGGAAAGGGA
AGGTTTCTCC TTGCAAGACA GAAAATTGGC CATTAAATGAT
8001 AGCATGGAAG ATTTAGTCAC TGCCCACTGC CAGTTGAAGA
TGCACTTGTT TCTTTGTTTG ATTGTAGTGA TCAATCTCTT
8081 CAGCAGAGAG TGATTGAGAC GTATATATCT CGACTGTACC
AGGTATTGCA TGAGCTATGT TTTTGTATTT ATTATAATCT
8161 CCCTCAGCAT TTCTGGAAGC ATACAATAAT TCCTAATGAA
ATAAAATGCT CAGTTTTTCT TTGAAATAAA TCCTAGATAA
8241 TCTAGGTGTG GGAAGATTTG ATTTAGAACT GTTTGTAGAC
ATGTCACCTG TCTGTAAGTT GGCTAACTTG CCAATGATAT
8321 TTTACGCTC AACTTGTGAA GGATAGTATC CAGCTGAAAT
ATCAGGATTC TGGTGTTAGC GCTTTATGGG AATTCACCTG
8401 AGGGCATCCT GAGAAGAGAT TGGGTGCTAT GGTTATCCTG
AAATCACTAG AATCTGTGTC AACAGCCATT GGAGCTGCTC
8481 TAAAGGATAC ATCACAGTAT GCAAGCTCTG TGGGTAACAC
GGTGCAATTT GCTTTGTTGG ATGCTGATAC CCAATGAAT
8561 ACAACTGAAG ATAGGTATGT TCATGTGCAG TATTAGTGCC
GATGAGTTTG CTTTGTGCAA TTCTGAATAT AATTAATCTA

FIGURE 27A CONTINUED

8641 TTTCTTTTCAG TGGTGATAAT GACCATGCTC AAGATAGGAT
GGACAAACTT TCTGCTGTAC TGAAACAAGA TATTGTCACC
8721 GCTGATCTAC GTGCTGCTGG AGTCAAGATT ATTAGTTGCA
TTGTTCAAAG AGATGGAGCA CTCATGCCTA TGCGCCGTAC
8801 CTTCTCTTA TCAGAGGAAA AGCTTTGTTA TGAGGAAGAG
CCGATTCTTC GGCATGTGGA GCCTCCACTT TCTGCACTTC
8881 TTGAGTTGGT ATGTAAGTCC ATCAAAGTGA CTGCACGGTT
TTTTGATACA CTTTAACGCT TTTCGTCTTA TTATTTGCTA
8961 CTTGTATTGA TTTAGCCTAC TGTTGATACA GGATAAACTG
AAAGTGAAAG GATACAATGA GATGAAGTAT ACACCATCAC
9041 GTGATCGTCA ATGGCATATA TACACACTTA GAAATACTGA
AAATCCCAAA ATGTTGCACA GGGTATTTTT CCGAACTCTT
9121 GTCAGACAAC CCAGTGCTGG CAACAGGTTT GCATCCGGCC
ATATCAGTGA TGTCGAAAGT GGACATGCTG AGGAATCTCT
9201 TTCATCTACA TCAAGCAGCA TATTAAGATC GTTGATGACT
GCTATAGAAG AATTGGAGCT TCACGCGATC AGGACTGGCC
9281 ATTCTCATAT GTACTTGTGC ATATTGAAAG AGCAAAAGCT
TCTTGACCTC GTTCTGTTT CAGGGTAAGC CTGCACATCG
9361 TTCTTTTTGC AGAACATATT TGCCTTGCTC GTCTGTTTAG
CCTTCTCAAC GAGCTTTTCA TCTTACTCAG GAACACTGTT
9441 GTGGATGTTG GTCAAGATGA AGCTACTGCA TGCTCTCTTT
TGAAAGAAAT GGCTCTAAAG ATACATGAAC TTGTTGGTGC
9521 AAGAATGCAT CATCTTTCTG TATGCCAGTG GGAAGTGAAA
CTTAAATTGG ACAGCGATGG GCCTGCCAGT GGTAGCTGGA
9601 GAGTTGTAAC AACTAATGTT ACTGGTCACA CCTGCACAGT
GGATGTAAGT TTTATCCCCT TGCCTGCATG GAACTAATGA
9681 AACTAAAGTG GACATATGTC ACTTATACAT GGAAGTATCA
TCTTTGATTC TCATAAAAAA GAACCATCAT CTTCGTTTAG
9761 TTTGTTATCA TTTCCACCTC ATTTATGGTC TGAAGCTCAT
GGTGCTTTTA ATGCTTTTAG ATCTACCGGG AGGTCGAAGA
9841 TACAGAAGCA CGGAAACTAG TATACCACTC TGCCGTATCG
TCATCTGGTC CTTTGCATGG TGTCGCACTG AATAATTCGT
9921 ATCAGCCTTT GAGTGTTATT GATCTAAAAC GATGCTCTGC
TAGGAACAAC AGAACGACAT ACTGCTATGA TTTTCCATTG
10001 GTTAGTATCT CTCTCTCTCT CTCTATGTAT TATTTTAGCA
GGTTTGATT GGTATTACAT GTCCTAAATC TGACAAGAAC
10081 TCAAAAATGT AGGCATTTGA AACTGCAGTG CGGAAGTCAT
GGTCTAACAT TTCTAGTGAA AACAACCAAT GTTATGTTAA
10161 AGCGACAGAG CTGGTGTTTG CTGAAAAGAA TGGGTCGTGG
GGCACTCCTA TAATTCCTAT GCAGCGTGCT GCTGGGCTCA
10241 ATGACATTGG TATGGTGGCC TGGATCTTGG ACATGTCCAC
TCCTGAATTT CCCAGTGGCA GACAGATTAT TGTTATCGCA
10321 AATGATATTA CGTTTAGAGC TGGATCATTT GGCCCAAGGG
AAGATGCATT TTTTGAAACT GTTACCAACC TAGCTTGTGA

FIGURE 27A CONTINUED

10401 GAAGAAGCTT CCACTTATCT ACTTGGCTGC AAACCTCTGGT
GCTCGGATTG GCATTGCTGA TGAAGTAAAA TCTTGCTTCC
10481 GTGTTGCATG GAATGATGAT AGCTGCCCTG AAAAAGGATT
TGACTIONACAA TATCTGACTG AAGAAGACTA TGGTCGTATT
10561 AGCTCTTCAG TTATAGCGCA CAAGATGCAG CTAGATAGTG
GCGAAATTAG GTGGGTATATC GATTCTGTTG TGGGGAAGGA
10641 GGATGGACTA GGTGTGGAGA ACATACATGG AAGTGCTGCT
ATTGCCAGTG CTTATTCTAG GGCATACGAG GAGACATTTA
10721 CACTTACATT TGTTACTGGA CGAACTGTTG GAATAGGAGC
CTATCTTGCT CGACTTGGCA TACGGTGCAT ACAGCGTACT
10801 GACCAGCCCA TTATTCTGAC TGGGTATTCT GCCCTGAACA
AGCTTCTCGG GCGGGAAGTG TACAGCTCCC ACATGCAGTT
10881 GGGTGGTCCC AAAATCATGG CGACCAATGG TGTTGTCCAT
CTGACTGTTC CAGATGACCT TGAAGGTGTT TCTAATATAT
10961 TGAGGTGGCT TAGCTATGTT CCTGCAAACA TTGGTGGACC
TCTTCCGATT AAAAAATCTT TGGACCCAAT AGACAGACCC
11041 GTTGACATACA TCCCTGAGAA TACATGTGAT CCTCGTGCAG
CCATCAGCGG CATTGATGAC AGCCAAGGGA AATGGTTGGG
11121 TGGCATGTTT GACAAAGACA GTTTTGTGGA GACATTTGAA
GGATGGGCGA AGACAGTAGT TACTGGCAGA GCAAACTTG
11201 GAGGGATTCC TGTGGGTGTT ATAGCTGTGG AGACACAGAC
CATGATGCAG CTCGTCCCCG CTGATCCAGG CCAGCCTGAT
11281 TCCCATGAGC GGTCTGTTCC TCGTGCGGGG CAAGTCTGGT
TTCCAGATTC TGCTACTAAG ACGGCGCAGG CGATGTTGGA
11361 CTTCAACCGT GAAGGATTAC CTCTGTTCAT CCTTGCAAAC
TGGAGAGGCT TCTCTGGTGG GCAAAGAGAT CTTTTTGAAG
11441 GAATTCTGCA GGCTGGGTCA ACAATTGTTG AGAACCTTAG
GACATACAAT CAGCCTGCCT TTGTATATAT CCCCAGGCT
11521 GCAGAGCTAC GTGGAGGGGC TTGGGTCGTG ATTGATAGCA
AGATAAACCC GGATCGCATT GAGTGCTATG CTGAGAGGAC
11601 TGCAAAGGGC AATGTTCTCG AACCTCAAGG GTTGATTGAG
ATCAAGTTCA GGTCAGAGGA GTCCTAAGAA TGCATGGGTA
11681 GGCTTGATCC ACAATTGATA AGTATGAAAG AAGAACTCCT
GGGAGCAAAG CATCAAAATG GAAGCCTATC TGACGTTGAA
11761 TCCCTTCAGA AGAGCATAGA AGCTCGAAAG AAACACTTGC
TGCCTTTGTA CACTCAAATC GCGGTACGGT TTGCTGAATT
11841 GCATGACACT TCCCTCAGAA TGGCTGCTAA AGGTGTGATC
AGGAAAGTTG TGGACTGGGA AGACTCTCGG TCTTTCTTCT
11921 ACAAGAGATT ACGGAGGAGG ATATCCGAGG ACGTTCTTGC
GAAGGAAATT AGAGGCGTAA TTGGTGAGAA GTTTTCTCAT
12001 AAATCAGCGG TCGAGCTGAT CAAGAAATGG TACTTGGCTT
CTGAGGCTGC TGTAGCAGGA AGCACTGACT GGGATGATGA
12081 CGATGCTTTT GTTGCCTGGA GGGAGAACCC TGAAAACATAT
AAGGAGTATA TGAAAGAGCT TAGGGCTCAA AGGGTATCTC

FIGURE 27A CONTINUED

12161 AGTTGCTCTC AGATGTTGCA GGCTCCAGTT CAGATTTGCA
AGCCTTGCCG CAGGGTCTTT CCATGCTACT AGATAAGGTA
12241 CGCATACTTA CGGCTTTACC TGCATCTGTT TATTTGCAAG
TAGTTTGTCG AGGTTGAGTA AAATGTGGCC ATCTTCATAT
12321 GCACTTGTAT GTAACCAAAC AATGCTGCTA TCTTTTTCAT
ATATAGTATC GTATGAAATA ATGTCTGAGA CGCTTTTCTT
12401 TGGAAACTTT GTTCAGATGG ATCCCTCTAA GAGAGCACAG
TTTATCGAGG AAGTCAGGAA GGTCCTGAAA TGATGGAAAT
12481 GATACCAACA CATCCAATAA AATATGCGCA TGATATCTGT
TTCACCTTGAA GTACATATAT AGAAGGATAA TCTGGGCCAA
12561 CCATTATTTT TGTGAACTTG TTGGTGGTCT TTATTATTCA
AGGCACAAGT TGCTTTCGGA CCCCTCCGG CTGGTTGATG
12641 AGTGTAATTG G

FIGURE 27B

Poa pratensis plastidal ACCase CAMZMU010000098 (SEQ ID NO: 978)

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1  MGSTHLPIVG FNASTTPSLS TLRQINSAGA AFQSSSPSRS
SKKKSRRVKS IRDDGDGSVS DPAGHGQSIR QGLAGIIDLP
81  KEGASAPEVD ISHGSEDHRG SYQMNGILNE SHNGKHASLS
KVVEFCMALG GKTPIHSVLV ANNGMAAAKF MRSVRTWAND
161  TFGSEKAIQL IAMATPEDMR INAEHIRIAD QFVEVPGGTN
NNNYANVQLI VEIAERTGVS AVWPGWGHAS ENPELPDALT
241  AKGIVFLGPP ASSMNALGDK VGSALIAQAA GVPTLAWSGS
HVEIPLELCL DSIPEEMYRK ACVTTADEAV ASCQMIGYPA
321  MIKASWGGGG KGIRKVNND EKVLFKQVQ GEVPGSPIFI
MRLAAQSRHL EVQLLCDQYG NVAALHSRDC SVQRRHQKII
401  EEGPVTVAPR ETVKELEQAA RRLAKAVGYV GAATVEYLYS
METGEYYFLE LNPRLQVEHP VTEWIAEVNL PAAQVAVGMG
481  IPLWQVPEIR RFGMDNGGG YDIWRKTSAL ATPFNDFEVD
SQWPKGHCVA VRITSENPDD GFKPTGGKVK EISFKSKPNV
561  WGYFSVKSGG GIHEFADSQF GHVFAYGVTR SAAITNMSLA
LKEIQIRGEI HTNVDYTVDL LNAPDFKENT IHTGWLDTRI
641  AMRVQAERPP WYISVVGAL YKTITANADT VSEYVSYLIK
GQIPPKHISL VHSTISLNIE ESKYTIEIVR SGQGSYRLRM
721  NGSLIEANVQ TLCDGGLLMQ LDGNSHVIYA EEEAGGTRLL
IDGKTCLLQN DHDP SRLAE TPCKLLRFLI ADGAHV DADV
801  PYAEVEVMKM CMPLLSPAAG VINVLLSEGQ AMQAGDLIAR
LDLDDPSAVK RAEPFEGSFP EMSLPAAASG QVHKRCAASL
881  NAARMVLGY DHAVNKVVQD LVWCLDTPEL PFLQWEELMS
VLATRLPRRL KSELEGKYSE YKLNVDHVKI KDFPTEMLRQ
961  TIEENLAYVS ENEMATIERL VDPLMSLLKS YEGGRESHAH
FIVKSLFEDY LLVEELFSDG IQSDVIERLR LQHSKDLQKV
1041  VDIVLSHQGV RNKTKLILTL MEKLVYPNPA AYRDQLIRFS
SLNHKRYKYL ALKASELLEQ TKLSELRTSI ARNLSALEMF
1121  TEEREGFSLQ DRKLAINDSM EDLVTAPLPV EDALVSLFDC
SDQSLQQRVI ETYISRLYQP QLVKDSIQLK YQDSGVSALW
1201  EFTEGHPEKR LGAMVILKSL ESVSTAIGAA LKDTSQYASS
VGNTVHIALL DADTQMNTTE DSGDNDHAQD RMDKLSAVLK
1281  QDIVTADLRA AGVKIISCIV QRDGALMPMR RTFLLSEEKL
CYEEEPILRH VEPPLSALLE LDKLKVKGYN EMKYTPSRDR
1361  QWHIYTLRNT ENPKMLHRVF FRTLVRQPSA GNRFASGHIS
DVEVGHAES LSSTSSSILR SLMTAIEELE LHAIRTGHSH
1441  MYLCILKEQK LLDLVPVSGN TVVDVGQDEA TACSLLKEMA
LKIHELVGAR MHHLSVCQWE VKLKLSDGP ASGSWRVVT
1521  NVTGHTCTVD IYREVEDTEA RKLVIHSAVS SSGPLHGVAL
NNSYQPLSVI DLKRC SARNN RTTYCYDFPL AFETA VRKSW
1601  SNISSENNQC YVKATELVFA EKNGSWGTP IPMQRAAGLN
DIGMVAWILD MSTPEFP SGR QIIVIANDIT FRAGSFGPRE
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FIGURE 27B CONTINUED

1681 DAFFETVTNL ACEKKLPLIY LAANSGARIG IADEVKSCFR
VAWNDDSCPE KGFDYQYLTE EDYGRISSSV IAHKMQLDSG
1761 EIRWVIDSVV GKEDGLGVEN IHGSAAIASA YSRAYEETFT
LTFVTGRTVG IGAYLARLGI RCIQRTDQPI ILTGYSALNK
1841 LLGREVYSSH MQLGGPKIMA TNGVVHLTVP DDLEGVSNIL
RWLSYVPANI GGPLPITKSL DPIDRPVAYI PENTCDPRAA
1921 ISGIDDSQ GK WLGGMFDKDS FVETFE GWAK TVVTGRAKLG
GIPVGVIAVE TQTMMLVPA DPGQPD SHER SVPRAGQVWF
2001 PDSATKTAQA MLDFNREGLP LFI LANWRGF SGGQRDLFEG
ILQAGSTIVE NLR TYNQPAF VYIPKAAELR GGAWVIDSK
2081 INPDRIECYA ERTAKGNVLE PQGLIEIKFR SEELQECMGR
LDPQLISMKE ELLGAKHQNG SLSDVESLQK SIEARKKHLL
2161 PLYTQIAVRF AELHDTSLRM AAKGVIRKVV DWEDSR SFFY
KRLRRRISED VLAKEIRGVI GEKFSHKS AV ELIKKWYLAS
2241 EAAVAGSTDW DDDDAFVAWR ENPENYKEYM KELRAQRVSQ
LLSDVAGSSS DLQALPQGLS MLLDKMDPSK RAQFIEEVRK
2321 VLK