

Supplementary Table S1. Sequences of *FAD2* (*FAD2a-1/FAD2a-2*, *FAD2b-1/FAD2b-2*, *FAD2c-1/FAD2c-2*, *FAD2d-1/FAD2d-2*, *FAD2e-1/FAD2e-2*, *FAD2f-1/FAD2f-2*, *FAD2g-1/FAD2g-2*, and *FAD2h*), *FAD3* (*FAD3a/FAD3b*, *FAD3c-1/FAD3c-2*, and *FAD3d-1/FAD3d-2*), and *SAD* (*SAD2-1/SAD2-2* and *SAD3-1/SAD3-2*) genes of flax varieties YY5, 3896, Atlant, and CDC Bethune.

Gene	Sequence
	YY5
<i>FAD2a-1</i>	ATGGGTGCCGGTGGCAGAATGTCAGTGCCTCCATCATCCAAACCTATGAAGAGGT CTCCTTACTCAAAGCCACCATTACGCTCGGTGAGCTCAAGAAGGCCATCCCTCC ACACTGTTTCAAACGCTCAATCCCCCGATCGTTCGCCTACGTGGCGTACGACCTCA CCATTGCAGCAATCTTCTACTACATCGCCACCACCTACTTCCACCTCCTCCCTAGC CCTCTCAACTACCTCGCCTGGCCGGTCTACTGGGCCTGCCAGGGCTGCATCCTCAC TGGAGTATGGGTGTTGGCTCACGAATGCGGTCACCATGCCTTCAGCGACTACCAG TGGCTCGACGACATGGTTGGCTTCGTCTCCATTTCGTCCCTCCTTGTTCTTACTTC TCCTGGAAGCACAGCCACCGCCGCCACCATTCCAACACGGGATCGCTTGATCGTG ATGAGGTGTTTGTCCCAAGCAGAAGGCCGAAATCGGGTGGTACTCCAAGTACCT TAACAACCCACCTGGCCGTGTGATCACATTGGCCGTCACATTAACGCTCGGTTGG CCTCTGTACTTGGCATTCAACGTCTCCGGGAGACCATATGACCGGTTTCGCATGCCA TTTTGACCCTCACGGTCCGATTTACAATGATCGCGAGCGTATGGAGATATACCTAT CCGACGCAGGGATATTCACCGTGTGCTACATCCTATACAGACTCGTCTCTACGAA AGGACTCGTTTGGGTCGTGTCCATATACGGAGTCCCACTATTGATAGTGAATGGAT TCCTAGTCCTCATCACTTTCTTGCAGCACACGCATCCTTCTCTTCCGCACTACAAGT CCTCCGAATGGGACTGGATGCGAGGCGCCCTCTCGACCGTGGATCGAGACTACGG GTTACTCAACACCGTGTTCACAACATCACCGATACACATGTCGCGCACCATCTC TTCTCCACGATGCCTCATTACCACGCGATGGAGGCTACCAAGGCGATCAAGCCGG TTCTCGGGGAGTATTACCAGTTCGATGGGACTCCCTTTGTGAAGGCCATGTGGAG GGAGGCAAAGGAGTGCATCTATGTCGAGCCGGATGAAGGCGACCCAGCCAAGG CGTGTTCTGGTACAACAACAAGCTGTGA
<i>FAD2a-2</i>	ATGGGTGCCGGTGGCAGAATGTCAGTGCCTCCATCATCCAAACCTATGAAGAGGT CTCCTTACTCAAAGCCACCATTACGCTCGGTGAGCTCAAGAAGGCCATTCTCTCC ACACTGTTTCAAACGTTCAATCCCCCGATCGTTCGCCTACGTGGCGTACGACCTCA CCATTGCAGCAATCTTCTACTACATCGCCACCACCTACTTCCACCTCCTCCCTAGC CCTCTCAACTACCTCGCCTGGCCGGTCTACTGGGCCTGCCAGGGCTGCATCCTCAC TGGAGTATGGGTGTTGGCTCACGAATGCGGTCACCATGCCTTCAGCGACTACCAG TGGCTCGACGACATGGTTGGCTTCGTCTCCATTTCGTCCCTCCTTGTTCTTACTTC TCCTGGAAGCACAGCCACCGCCGCCACCATTCCAACACGGGGTTCGCTTGATCGTG ATGAGGTGTTTGTCCCAAGCAGAAGGCCGAAATCGGGTGGTACTCCAAGTACCT TAACAACCCACCTGGCCGTGTGATCACATTGGCCGTCACATTAACGCTCGGTTGG CCTCTGTACTTGGCATTCAACGTCTCCGGGAGACCATATGACCGGTTTCGCATGCCA TTTCGACCCTCACGGTCCGATTTACAATGATCGCGAGCGTATGGAGATATACCTAT CCGACGCAGGGATATTCACCGTGTGCTACATCCTATACAGACTCGTCTCTACGAA AGGACTCGTTTGGGTCGTGTCCATTACGGAGTCCCACTATTGATAGTGAATGGAT TCCTAGTCCTCATCACTTTCTTGCAGCACACGCATCCTTCTCTTCCGCACTACAAGT CCTCCGAATGGGACTGGCTGCGAGGCGCCCTCTCGACCGTGGATCGAGACTACGG GTTACTCAACACCGTGTTCACAACATCACCGACACACATGTCGCGCACCATCTC TTCTCCACGATGCCTCATTACCACGCGATGGAGGCTACCAAGGCGATCAAGCCGG TTCTCGGGGAGTATTACCAGTTCGATGGGACTCCCTTTGTGAAGGCCATGTGGAG GGAGGCAAAGGAGTGCATCTATGTCGAGCCGGATGAAGGCGACCCAGCCAAGG CGTGTTCTGGTACAACAACAAGCTGTGA
<i>FAD2b-1</i>	ATGGGTGCTGGCGGAAGAATGGCCGTGCCTCCATCGAACAAGGCGGACTCCGAA ACCTTTAAGCGGTCTCCTTACTCAAAACCTCCCTTCACTCTTGGTGAGATCAAGAA AGCCGTCCCTCCACACTGCTTCAAAAGGTCCATCCCCCGCTCGTTCTCCTACGTGG CTTATGACCTACCATAGCCGCCATCTTCTACTACATCGCCACCACCTACATCCAC

	<p>CTCCTCCCCAATCCTCTCTCCTACGTGGCGTGGCCGATCTACTGGGCCTGCCAAGG CTGCGTCTCACTGGTGTCTGGGTCTAGCCCACGAATGCGGTACCATGCCTTCA GCGACTACCAATGGCTCGACGACTTGGTCGGCTTTGTCTCCACTCATGCCTCATG GTACCCTACTTCTCGTGGAAGCACAGCCACCGTCGCCACCACTCCAATACTGGGT CCCTCGAACGAGACGAGGTTTTTGTCCCCAAGCAGAAATCAGCCATTGGCTGGCA CTCAAAGTACCTCAACAACCCACCTGGCCGTGTGCTCACACTTGCAGTCACTCTC ACTCTCGGCTGGCCTTTGTACTTGGCATTCAACGTCTCTGGAAGGCCGTACGACCG GTTGCGCTGCCATTACGATCCTAAATCCCCCATCTACAACGACCGCGAGCGAACG GAGATATTCTTCTCCGATGCTGGCATCCTTGCTGTGAGCTTTGCGCTCTACAAGCTT GCTGTGCGCAAGGGACTGGCTTGGGTGGTTTGTGTCTACGGAGTTCCACTCCTTGT AGTGAATGGATTCTTGTCTTGATCACTTTCTTGAGCACACCCACCCATCATTGC CGCACTACAAATCCTCCGAATGGGACTGGCTGAGAGGTGCTCTGGCGACCATGGA CAGAGACTACGGGTTTCTGAACACGGTGTTCCATAACATCACGGATACCCACGTG GCGCACCACTGTTCTCGACGATGCCTCATTACCATGCAATGGAAGCTACAAAGG CGATCAAGCCGGTATTGGGAGAGTACTACCAATTCGACGGGACTCCATTCATCAA GGCGATGTGGAGGGAGGCTAAGGAGTGTGTTTATGTGAGCCCCGACGAAGGTGA CCAGAACAAGGCGTGTTCTGGTACAACAACAAGCTGTGA</p>
<i>FAD2b-2</i>	<p>ATGGGTGCTGGTGGAAGAATGGCTGTGCCTCCATCGAACAAGGCGGACTCGGAA ACCTTTAAGCGGTCTCCATACTCAAAACCTCCATTCACTTGGTGAGATCAAGA AAGCCATCCCTCCACATTGCTTCAAAAGGTCCATCCCCGCTCATTCTCCTATGTG GCTTATGACCTCACCATTGCCGCCATCTTCTACTACATCGCCACCACTTACATCCA CCTCTCCCCAATCCTCTCTCCTACGTTGCGTGGCCTATCTACTGGGCCTGCCAAG GCTGCGTCTCACCAGGTGCTGGGTCTAGCCCACGAATGCGGTACCCACGCCTTC AGCGACTACCAATGGCTTGATGACTTGGTCGGCTTTGTCTTCACTCATGCCTCAT GGTCCCCTACTTCTCGTGGAAGCACAGCCACCGTCGCCACCACTCCAACACCGGG TCCCTTGAACGAGATGAGGTTTTTGTCCCCAAGCAGAAATCGGCCATCGGCTGGC ACTCAAAGTACCTCAACAATCCACCTGGCCGTGTGCTCACACTTGCAGTCACTCT CACTCTCGGCTGGCCTTTATACTTGGCATTCAACGTTTCCGGAAGGCCGTACGACC GGTTCGCTGCCATTACGATCCTAAATCCCCTATCTACAACGACCGCGAGCGAAC TGAGATCTTCCTCTCCGATGCCGGCATCCTTGCTGTGAGCTTTGCAATCTACAAGC TTGCTGTGCGCAAGGGACTGGCTTGGGTGGTTTGTGTCTATGGAGTTCCACTCCTT GTAGTGAATGGATTTCTTGTCTTAATCACTTTCTTGAGCACACCCACCCATCATT GCCGCACTACAAATCCTCCGAATGGGACTGGCTGAGAGGTGCTCTGGCGACCATG GACAGAGACTACGGGTTTCTGAACACGGTGTTCCATAACATCACGGATACCCACG TGGCACATCACCTGTTCTCGACGATGCCTCATTACCATGCGATGGAAGCTACCAA GGCGATCAAGCCGGTACTGGGAGAGTACTACCAGTTCGATGGGACTCCATTATC AAGGCGATGTGGAGGGAGGCTAAGGAGTGTGTCTATGTTGAGCCTGACGAAGGT GACCAGAACAAGGCGTGTTCTGGTACAACAACAAGCTGTGA</p>
<i>FAD2c-1</i>	<p>ATGTTCTCATCCTCTGCAACTAAAATGCCGGCGCCGCTTCATCATCCAACACGA CCATGAAGCGATCGCTCACTCAAAGCCGCCGTTACCCGTCTCCGACGTCAAGAA AGCCATTCCACCACACTGCTTCCAAAGGTCCCTCCTCCGATCATTCTCCTACCTAA CCTACGACCTCACCATCATCACAATCCTCTACCAAGTCGCCACCACTTACTTCCAC CTCTCCCCGACACCTCTCTCATCCTACGTGGCATGGCCGGCCTACTGGGCCGGCCA AGGCTGCTTCTCGTCGCTGTATGGATGGTGGCCACGAGTGTGGCCATCACGCCT TCAGCGACCAGCACTGGCTGGAAGACTCGGTTCGGATTATCCTCCACTCAGCCCT CCTTTCACCTTACTTCTCATGGAAGCACAGCCACCGTCGCCACCATGCCAACACG AGTCCCTCGAACGTGACGAGGTGTTGTCCTAAACCCAAGTCCAAGCTGAGCT GGCACTTCAAGTTCTTCAACAACCCGCTGGCCGCGTCTGCAGTTGGCATTGCT CTGCTTCTTGATGGCCTCTCTATTTGGCGATCAACATCGCCGAAGGCCGTACGA GAAATTCGCTAGCCACTTCGATCCGAGAAGCCCTATCTACAACGATCGAGAGCGG ATCGAGATATTCGCATCCGATGTTGGCGTGCTCTGCATGTGGTTTCGCGCTGTATAA ACTTGCTCTAGTGAACGGAGTTGGTTGGGTGTTTGTGTGTACGGGATCCCGCTGT TGGTGATGAATGGATGGGTTCGTTACGATCACTTACTTGCATCACACGCATATAGC</p>

	<p>GTTGCCGCGGTATGATTTCGTCCGAATGGGATTGGTTGAGGGGTGCATTGGCGACT GTGGATAGGGACTATGGTGTGTTTGAACAAGGTGTTTCATAACATCACGGATACTC ATGTGGCGCACCATCTGTTTTCGGCGATGCCTCATTACCATGCGGCGGAAGCGAC CGAGGCGATCAAGCCCGTTTTGGGCGAGTATTATCGGTGTGACCGGACTCCTATT ATCAAGGCGTTATGGAGGGAGTTTAAAGCACTGTATTTATGTCGAGTCAGATGAGG ATAAAGGCGTGTTTTGGTTCAATGACAAGTTGTAA</p>
<i>FAD2c-2</i>	<p>ATGCCGCCGCCGCCTTCATCATCCAACACAACCATGAAGCGATCGCCACACTCAA AGCCGCCGTTACCCCTCTCTGACATCAAGAAAGCCATACCACCGCACTGCTTCCA AAGGTCCCTCCTCCGATCATTTCCTACTTAGCCTACGACCTACCGCCGTCACAA TCCTCTACCACATCGCCACCACGTA CTTCACCTCCTCCCGACACCTCTCTCATCC TACGTGGCTTGGTCGGCCTACTGGGCCAGCCAAGGCTGCTTCTTCGTCGCTGTATG GATGGTGGCCACGAGTGGGTCAACACGCCTTTAGCGACCAACACTGGCTGGA AGACTCGGTAGGGTTCATCCTCCACTCGGCCCTCCTTCGCCTTACTTCTCGTGGA AGCACAGCCACCGCCGCCACCACGCCAACACGAGTCCCTCGAGCGTGACGAGG TGTTTCGTCCCTAAGCTGAAATCCAAGCTGAGCTGGCACTTCAAGTTCTTCAATAAC CCGCCTGGCCGCGTCTGTCAGCTGGCCTTTGCTCTGCTTCTAGGATGGCCTCTCTA CCTTGCGGTCAACATCGCAGGAAGACCGTACGAGAAATTCGCTAGCCACTTCGAT CCGCGAAGCCCTATCTATAACGATCGGGAGCGAATTGAGATATTTGTATCTGATG TTGGCGTGCTTGCTATGTGGTTCGCTCTGTATAAACTTGCCCTGACGAACGGAGTT GGTTGGGTGTTTGTGTGTACGGGGTCCCTCTGTTGGTGATGAATGGATGGATCGT TACGATCACTTACTTGCATCACACGCATGTTCGATTGCCGCGGTATGATTCCTCGG AGTGGGATTGGTTGAGGGGTGCGCTCGCGACTGTAGATAGGGATTATGGGGTTTT GAACAAGGTGTTTCACAACATTACAGATACTCATGTGGCGCACCATCTGTTTTCG ACGATGCCTCATTACCATGCGGCGGAAGCAACCGAAGCGATCAAGCCCGTTTTGG GTGAGTATTATCGGTCTGACCGGACTCCTATCGCCAAGGCATTATGGAGGGAGAC TAAGCACTGTGTCTATGTCGAGGTTGATGAAGATAAAGGCGTGTTGTGGTTCAAT GATAAGATATGA</p>
<i>FAD2d-1</i>	<p>ATGGTATCCAATACCACCATAAAGCGAACACCGACCTCAAAACCGCCGTTACCC CTCTCCGACGTCAAGAAAGCAATACCACCGCACTGCTTCCAAAGATCCCTCCTCA AATCCTTACCTACCTAGCCTACGATCTCACCGTCATCACAATCCTCTACCACATC GCCACGTCATACTTCCACCTCCTCCCAACCTCTCTCCTACGTGGCGTGGCCGCT CTACTGGGCGCCAGGGGTACACTTCATCGCCGTCTGGGTATCGCCACGAG TGCGGCCACCACGCCTTCAGCGACTACCAGTGGCTAGACGACGCCGTTGGGTTCCG TCCTCCACTCCCTCCTTAGCTCCTTACTTCTCCTGGAAGCACAGCCACCGCCGT CACCACGCCAACGCCGCTCCATCGAGCGCGACGAGAATTACATCCCGAAAAAG AAGGACGAAGTCAACTGGCATTTTAAATACCTCGACAACCCTCCCGGACACGTGT TCTATATATTCTTCACTCTCACCTCGGATGGCCGCTCTACTTGCTGGTCAACATCT CCGGCAGGAAATACGACGACGATTTCGCCAGCCATTTGTATCCTTTCTCCCCTATC TACAACGACCGCGAGAGATTTCGGGATAGTCCTCTCCGTCGCCGGGATGCTCGCCA CGTGGTTCGGTCTTTATAAACTCGCGATGGTCAACGGGTTTCGGTTGGGTTGTTTGC GTGTACGGGGTGCCTCTCATTCTCCAGAATGCGATGTTGATTACCATCACTTACTT GCACCACACGCATCTCAACTTGCCCCACTACGACTCGTCGGAGTGGGACTGGATG AGGGGTGCGCTCGCGACTGTGGATAGGGATTACGGAATTTGAATAAGGTGATGC ATAATATTACGGATACCCACGTGGCGCACCATCTGTTCTCGATGATTCCTCATTAT CATGCGATGGAGGCTACAAATGCGATAAAGCCGGTTCTTGGGGAGTACTACCAA GTTGATACTACGCCGTTTTTGAAGGCGTTGTGGAGAGAGACTAAGGATTGTGTTTA TGTTGAGGCGGATGATGAGGGATCTGATCGGGAGAAGAAAGGAGGGGTGTTTTG GTTCAAAACCAAGCTGTAA</p>
<i>FAD2d-2</i>	<p>ATGGTATCCAATACCACCCTAAAGCGAACACCGACCACAAAACCGCCGTTACCC CTCTCCGACCTCAAGAAAGCAATACCACCACACTGCTTCCAAAGATCCCTCCTCA AATCCTTCTCCTACCTAGCCTACGACCTCACCGTCATCACAATCCTCTACCACATC GCCACGTCATACTTCCACCTCCTCCCAACCTCTCTCCTACGTGGCCTGGGTGGC CTATTGGGCGCTCAGGGGTCCCACTTCATCGCCGTGTGGGTATCGCCACGAG</p>

	<p> TGCGGCCACCACGCCTTCAGCGACTACCAGTGGCTAGACGACGCCGTCGGCTTCC TTCTCCACTCCCTCCTCTTAGCTCCTTACTTCTCCTGGAAGCACAGCCACCGCCGC CACCACGCCAACGCCGCTCCATCGAACGTGACGAGAATTACATCCCGAGAAAG AAGGACGAAGTCAACTGGCATTTTAAGTACCTTGATAACCTCCCGGACACGTGT TCTATATATTCTTCACTCTCACCTCGGATGGCCGCTCTACTTGCTGGTCAACATCT CCGGGAGGAAATACGACGACGATTTCGCCAGCCATTTGTATCCTTTCTCCCCGAT CTACAACGATCGGGAGAGGTTCTGGGGTGTTCCTCTCCGTCGCGGGGATGCTCGCC ACGTGGTTCGGACTTTATAAGCTCGCAATGGTCAACGGTCTCGGCTGGGTGTTTG CGTGACGGGGTCCCTCTGATTCTCCAGAATGCGATGTTGATTACCATCACTTACT TGCACCACACGCATCTCAACCTGCCCCACTACGACTCGTCGGAGTGGGACTGGAT GCGGGGTGCGCTCGGACTGTGGATAGGGACTACGGGATTTTGAACAAGGTAAT GCATAATATTACGGATACTCACGTGGCACACCATCTGTTTTCGATGATTCTCATT ACCATGCGATGGAGGCTACGAATGCGATCAGGCCGGTTCTGGGGGAGTACTACC AGGCCGATACGACGCCGTTTATTAAGGCGTTGTGGAGGGAGACTAAGGACTGTGT TTATGTTGAGGCGGATGATGAGGGCGGTGATCAGGAGAAGAAAGGAGGGGTGTT CTGGTTCAAAACCAAACCTGTGA </p>
<i>FAD2e-1</i>	<p> ATGTCCCTATTTACAGCGACCGCGAGCGAGCCGAGGTATTCGCCTCAGATGTTG GCTTGCTCGCTGTCTGCTTCGCGTTGTACAACTTATTATGGTCAAGGGAATGGCG TGGGTTTTTTCGCTCTATGGGGCTCCGGTCATGGTGGTGAATGGATTCTTCATTACC ATCACTTACTTGCATCACACTCATCTCGCGGTCCCGCGATACGATTTCGTCTGAATG GGATTGGTTGAGGGGAGCCCTGGCAACCATGGACAGGGACTTTGGCCTTTTGAAC AAGGTGTTCCATAATGTTACAGATACTCACGTGACGCACCATCTGATTTCGACGA TCCCTCATTATCATGCCATGGAAGCCAACAACGCAATTAGGCCCGTGTGGGGGA CTACTACCATATCGACAGGACGCCGGTGGTTAAGGCGTTGTGGAGGGAGGCTAA GGAGTGTGTTTACATCGAGGCCGATGATGGTGAAGAAGCAAAAGGCGTGTTCG GTTCAATACCAAGCTCTAA </p>
<i>FAD2e-2</i> (exon- intron junctions are not given)	<p> ATGCACTTTCGGATAGCTAACCTTTGTCTGATGCTAAAAACAGGCCATACATGGC GCCACAAAGCACTGCTCTAGTAAGTACACATGATTGGGATTACACTACACTTGAG TAATTAATCAGTCCATATTTTACCTGGATCCAAAGTTGAAAATAACTCGAAAA CAAATTTGTGCAAAATTGAGCATCAAATGAGACAATATTAACTATTTTCGAGTTTT GTTGGCGCTGTTCTCGAGTTGTATTAGCCTCTCCGAAAACATGTATAAAAAGCACT CGACCTATTCATATTATACAACATCAAAATCCCACCAATCAATCAAAAAACAGA GAGACACATCTAAAAGCCCCCCCCCCCCCCCCCCCCCTTACAAAAATGGTGGAGC GACGTTTCATCCAACAAGGCGGCGGCGGCGGAAACCGAAACCGCCGTCGTCAAAC GGTCCCGTCCTCAAAGCCGCCGTTCACTCGCCGACCTCAAGAAGGCCATTCC GCCGCACTGTTTCAAAGATCCATCCACGCTCCTTCTCCTACTTGGTTTTCGACCT CATCGTCGCCGCGCTCTTCTACCACATCGCCGCCACTTATTTCCCCCTCATCCCCA AACCTCTCTCTACGTGGCGTGGCCGGCCTACTGGTTCGTCCAGGGCAGCGTCCTG ACCGGTGTGTGGGTCATCGGCCACGAGTGCGGCCACCACGCATTTAGCGAGCACC AGTGGCTCGACGACCTGGTCGGGTTTCATCCTCCACTCGGCCCTCTCACCCCTTAC TTCTCGTGGAAGATCAGCCACCGCCGCCACCACGCCAACACCTGCTCCCTCGAGC GCGACGAGGTATATACTGTTGGGAACCGGACAAGAAGCAATATTCAGGGTTTATC GATCTGGCTGAGTATACATGGACAACTATCCATCAACATCCAAGATAAAAAACA GAGCTATAACTTTCAACTTCCGTGTGCAAAAATAGGGAGATGAATAAAATTTTCAG ATAATTTAAACAAATAAATTATCTCCAAAATGAATAATATTGGTCTCAAGTCCAA TCCAACCTGGAGAACTGGATCTTTTTACAAAGACGTTTTTGCATTAGTCTTTTTTTC TTTCTCCGATGTGATATTTGAGACTTAATTATTCACATTTTCAACAGGTGTACATT CCGAGGAAGAAGTCTCAGTTGCGGTGGTGGTACTCGAGCTACCTGAACAACCCGC CCGGCAGACTTTTGGCGCTGGCTTACACCATCCTACTCGGCTGGCCTTCTACTTG ACTTTCAACCTATCCGGAAGGGAATACAACGGTTTGGCCTGTCATTTCTACCCGAT GTCCCCTATTTACAGCGACCGGGAGCGGGCCGAGGTATTCGCCTCCGATGTTGGC TTGCTTGCTGTGTGCTTCGCGCTGTACAACTTATCCTCGTCAAGGGAATGGCGTG GGTCTTTTTCGCTCTACGGGGCTCCGGTCATGGTGGTGAACGGATTCTTCATAACCA </p>

	TCACGTA CTTCACCACTCATCTTGCGGTCCCGCGGTACAATTCCTCGGAATGG GATTGGTTGAGGGGAGCCCTAGCAACGATGGATAGAGACTTTGGGTTATTGAACA GGGTGTTCCATAACGTTACAGATACTCATGTGACGCATCATCTGATCTCGACCATC CCTCACTACCATGCCATGGAAGCCAACAACGCGATTAGGCCCGTGTTGGGGGACT ACTACCACATCGACAGGACGCCTGTTGTTAAGGCGTTGTGGAGGGAGGCTAAGC AGTGTGTTTACATCGAGGCGGACGAAGGTGAAAATAACAACGGCGTGTTCTGGTT CAATACCAAGCTCTAA
<i>FAD2f-1</i>	ATGGTGTCTCCGGCAAAACCATGAGCAACAAAACCACCACGAAGCGGCCGCCG GTGTCAAAACCGCCGTTCACTCTGGCCGACATCAAGAGAGCCGTACCGCCACACT GCTTCAAAAGATCCCTCGTCAAATCATTGCGCTACCTAGCCTACGACCTCACCGTC ATCACAATCCTCTACCACATCGCCAACACATACTTCCACCTCCTCCCCAAACCTCT CTCCTACGTGGCGTGGCCCGTCTATTGGGCTGCCCAATGCTGCTTTTTTCGTCGCTTT ATGGATGGTGGGCCACGACTGCGGCCATCATTCAATTCAGCGACTATCAGTGGGTG GACGACACCGTTGGATTTCGTCTCCACTCGTTCTCCTCGCCCTTACTTCTCGTGG AAGCATAGCCACCGCCGCCACCACGCCAACTCCGGATCTCTAGAACGCGACGAG TCGTTTCGTCCCGAAAACCAAAGACAATATCACCTGGCACTTCAAGTACCTCGACC ACCTACCGGGGCGGATCTTCTACGTGGTCTTCACTCTAACCCTCGGATGGCCGCTC TACTTGATGTTCAACATCACCGGAAGGCCGTACAAGGACGGATTTCGCCAGTCATT TCTACCCCATGTGCGCTATCTACGAGGATCACGAGCGGTTTCGGAATATTCCTCTCT GATGTTGGCATGCTCGCTATGTGGTTCACACTCTACAAGCTTTCGGTGGCGTATGG AGTCGGTTGGGTTCTTTGTGTGATTTTATTCCGCTGGTTTTACAAAATGCGTTGTTT GTCACGATCACTTACTTACACCACACGCATCTGAACCTGCCTCACTATGACTCTTC GGGTGGGACTGGATGAGGGGGTTCGTTGACGACTGTGGATAGGGACTATGGGTTT TTGAACAAGGTGTTGCATAACGTGACAGATACTCACGTGGCGCACCATCTGTTCA CCCATATGCCTCATTACCACCAATCGGAAGCGACCAAGGCGTTCATTCCGGTTTTG GGGGAATACTACCAGGTTGATCCGACTCCGTTCTACAAGGCGTTGTGGAGGGAGA TGAAGCACTGTGTTTATATCGAGCAAGATGAGGATGCGGATTCTGATAATAACAA AAAAGGCGTGTA CTGGTACAAAACCAAGCTCTAA
<i>FAD2f-2</i>	ATGGTATCCTCCGACAAAACCACGAACAACAAAACCACCACGAAGCGGCCGCCG CTGTCAAAACCGCCGTTCAACCTCGCCGACATCAAGAGAGCCGTACCGCCGCACT GCTTCAAAAGATCTCTAGTCAAATCATTGCGCTACCTAGCCTACGACCTCACCGTC ATCACCTTCCTCTACCACATCGCCAACACATACTTCCATCTCCTCCTCAAACCTCT CTCCTACGTGGCGTGGCCCTCTACTGGGCCGCTCAATGTTGCTTCTTCGTCGCTTT ATGGATGGTGGGTCATGATTGTGGCCACCATTTGTTTCAGCGACTATCAGTGGATTG ACGACACTGTGCGTTTCATCATCCACTCGTTCTCCTTGCTCCTTATTTCTCCTGGA AGCACAGCCACCGCCGCCATCATGCCAACTCCGGATCTCTAGAACGCAACGAGT CATTCGTCCCGAAAACCAAAGACAATATCGCCTGGCACTTCAAGTACCTCGACCA CCTACCGGGGCGGATCTTCTACGTGCTTTTCACTCTGACCCTCGGGTGGCCACTAT ACTTGATGTTCCACATCACTGGAAGGCCGTACAAGGATGGATTTCGCCAGCCATTT CTACCCCATGTGCGCGATCTATGAGGATCACGAGCGGTTTCGGGATATTCCTCTCCG ACGTTGGAATGCTCGCCATGTGGTTCACGCTCTACAAGCTCTCAATGGCGTATGG AGTCGGTTGGGTTCTTTGTGTGATTTTATTCCGTTGGTTTTACAAAATGCTTTGTTT GTTACGATTACTTACTTGACCACACGCATTTGAACTTACCTCACTATGACTCTTC GGGTGGGACTGGATGAGGGGGTTCGTTGACGACTGTGGATAGAGACTATTCGTTT TTGAACAAGGTGTTGCATAACGTGACAGATACTCACGTGGCGCACCATTTGTTCA CACATATGCCTCATTACCATCAATCGGAAGCGACCAAGGCGTTCATTCCGGTTTTG GGGAGTACTACCAGGCTGATCCGACGCCGTTCTACAAGGCGTTGTGGAGGGAG ATAAAGCATTGTGTTTATGTTGAACAAGATGAGGATGCGGATTCCGATCAGAACA AAAGAGGAGTGTACTGGTACAAAACCAAGCTGTGA
<i>FAD2g-1</i>	ATGAACAACAGAACCACCACGAAGCTGCTGCCGCTGTCAAAACCGCCGTTCACT CTGGCCGACATCAAGAGAGCCGTACCGCCACACTGTTTCAAAAGATCCCTCGTCA AATCATTGCGCTACCTAGCCTACGACATCACCGTCATCACAATCCTCTACCACATC GCCAACACATACTTCTACCTCCTCCCCAAACCTCTCTCCTACGTGGCGTGGCCCGT

	<p>CTATTGGGCGCCCAAGCTGCTTCTTCGTCGCTGTATGGATGGTGGGTACAGATT GCGGCCACCATTCAATTCAGCGACTACCAGTGGGTGGACGACACTGTCCGATTCTG CGTCCATTCTCTCTCCTCACCCTTACTTCTCGTGGAAGCACACCCACCGCAGCC ACCACGCCAACAACGGATCTCTAGAACGCGACGAATCTTTCGTCCCCAAGACCA AAGACGAAGTCAGGTGGCACTTCAAGTACCTCGACCACCTACCGGGGCGAATCTT CTACGTGTTCTTTACTCTAACCCTAGGATGGCCTCTCTACTTGATGTTCAACATCAC CGGAAGGCCGTACAAGGATGGATTGCTAGCCATTTCTACCCCATGTGCGCTATG TACGAGGACCATGAGCGGTTTGGAGTAGTCTGTCCGACATGGGAATGCTCGCTA TGTGGTTTACGCTCTACAAGCTCTCGGTGGCGTTTCGGAGTCACTTGGGTTCTCTGT GTGTACTTTATTCCACTAGTTTTACAAAACGCGTTGTTTGTACGATCACTTACTTG CACCACACGCATCCAAACGTGCCTCGTTATGACTCTTCGGGGTGGGGTTGGATGA GGGGGTCGTTGGTGACCGTGGATAGAGACTATGGGTTTTGAATAAAGTGTTCCA TAACGTGACGGATACTCACGTGGCGCACCATCTGTTACGCATATGCCTCATTACC ACCAATTGGAAGCTACCAAGGCGTTCATCCCGATTTTGGGAGAGTACTACCAGGC TGATCCAACACCGTTCTATAAAGCATTGTGGAGAGAAATGAAGCACTGTGTTTAT GTCGAACAAGACAAAGATGCAAATGTCGATCAGAACAAAAGAGGTGTGTATTGG TACAAAACAAAGTCGTGA</p>
<i>FAD2g-2</i>	<p>ATGGTATCCTCCGACAAAACCATGAACAACAAAACACCACGAAGCTGCTGCCG CTGTCAAAAACCGCCGTTCACTCTCGCCGACATCAAGAGAGCCGTACCGCCACACT GCTTCAAAAAGATCCCTCGTCAAATCATTGCGCTACCTAGCCTACGACATCACAGT CATCACAATCCTCTACCACATCGCCAACACATACTTCCACCTCCTCCCCAAACCTC TCTCTACGTGGTGTGGCCCCCTCTACTGGGCTGCCCAATGTTGCTTCTTCGTCGCG TATGGATGGTGGCCCATGACTGTGGCCACCATTCAATCAGCGACTATCAATGGGT CGACGACACCCACCGTCGGTTTCATCATCCACTCGTTCCTCCTCGCCCCCTTACTTCTCATG GAAGCACACCCACCGCAGCCACCACGCCAACAATGGATCTCTAGAACGCGACGA GTCTTTCGTCCCCAAGACCAAAAGACGAAATCAGGTGGCACTTCAAGTACCTCGAC CACCTACCGGGGAGAATCTTTTACGTGTTCTTCACTCTAACCCTAGGATGGCCTCT CTATTTGATGTTCAACATCACCGGAAGGCCGTACAAGGACGGATTGCGCCAGCCAT TTCTACCCCATGTGCGCTATGTACGAGGACCACGAGCGGTTTCGGAGTAGTCCTCTC TGACATGGGAATGCTCGCCATGTGGTTCACGCTCTACAAGCTCTCAATGGCGTAC GGAGTCAGTTGGGTTCTCTGTGTGTACTTTATTCCACTGGTTTTACAAAATGCGTTG TTTGTACGATCACTTACTTGCACCACACGCATCCGAACCTGCCTCGTTATGACTC TTCGGGGTGGGGTTGGATGAGGGGGTCGTTGGTAACTGTGGATAGAGACTACGGG TTTTTGAACAAAGTGTTGCATAACGTGACAGATACTCACGTGGCGCACCATCTGTT CACGCATATGCCTCATTACCACCAATTGGAAGCTACCAAGGCGTTCATTCCGGTTT TGGGGGAGTACTACCAAGCTGATGCAACGCCGTTCTACAAGGCATTGTGGAGGG AGATGAAACACTGTGTTTATGTTGAGCAAGATGAGGATGCAGATTCCGACCAAA ACAAAAGAGGTGTGTACTGGTACAAAACCAAGCCGTGA</p>
<i>FAD2h</i>	<p>ATGGTATCCAACAAAACCATAAACCGGCCGCCGTCTCAAAAACCGCCGTTTCATCC TCTCCGACATCAAGAAAGCAATCCCACCACACTGCTTCCGCAAATCCCTCCTCCG ATCATTCTCCTACGTAGCCTACGACCTCGCCGTCATCGCAATCCTCTACCACATCG CCACGTCATACTTCCACCTCCTCCCCAAACCTCTCTCCTACGTGGCCTGGCCGGCA TACTGGGCCGCCAGGGATCCCACTTCATCGCCGTCTGGGTCTGGCCACGAGT GCGGCCACCACGCCTTCAGCGACTACCAGTGGCTAGACGACGTCGTCGGATTCTGT CCTCCACTCCGCTCTCCTCTCGCCGTACTTCTCGTGGAACACAGCCACCGCCGCC ACCACTCCAACCTCGGCATCTCTAGAACGCGACGAGCTGTACATCCCGAAGAAGA AATCGGAGATTAGCTGGCATTACAAGTACCTCGACAACCCGCGGGTCATCTTTT CTACTTGGTGTTCACTCTCACTCTCGGATGGCCTCTCTACGTGATGTTCAACGTCTC CGGCAGGGAATACGACGACGGATTGCTAGCCATCTGTATCCTTTCTCCCCGATCT ACAACGAACGGGAGAGATTGCGGATACTTTTGTGCGACGCTGGGATGCTTGCCAC TTGGTTTGGTCTGTACAAGCTGTCCATGGTCAACGGACTGAGTTGGGTTGTTTGTG TGTACGGGGTCCCGCTATTGGTGATGAATGGATTGCTTGTGACGATCACTTACTTG CATCACACCCATCTTTCGCTCCCGCATTATGACTCGTCGGAGTGGGAGTGGATGA</p>

	<p>GAGGTGCGCTAGCGACTGTGGATAGAGACTACGGGTTCCCGCTGAATAAGGTGAT GCATCATATTACGGATACTCACGTGGTGACCATTGTTCTCGATGATTCCTCATT ACCATGCGACGGAGGCTACAAATGCGATTAGGCCGATTTTGGGTGAATATTATCA AGTTGATCCGACTCCGTTTGTCAAGGCGTTGTGGAGGGAGATGACGCACTGTGTTT ACGTTGAGGCCGATGAGAAGAAACGAGGTGTGTTCTGGTATAAAACCAAGCTAT GA</p>
<i>FAD3a</i>	<p>ATGAGCCCTCCAAACTCAATGAGTCCCGCCACCAACGGCAGCACCAATGGTGTG GCTATCAATGGGGCGAAGAAGCTACTCGATTTCGACCCGAGTGCTGCTCCCCCTT TCAAGATTGCAGACATCCGTGCTGCAATCCCGCCGCATTGTTGGGTGAAGAACCC CTGGAGGTCACTCAGCTACGTCCTGAGAGACCTCCTGGTCATCCTCAGCTTCGCCG TTGCGGCGACAAAGCTGGACAGCTGGACTGTCTGGCCTCTCTACTGGATTGCTCA AGGAACCATGTTCTGGGCAGTCTTTGTTCTTGGACATGATTGGTAATTCACATGA TCTTTCTGGTAATGTGGGTTTTCTTTTCTTATTGAAAAAGATTAAAACTTTTATCTG GGCTGTTGCATGCA GTGGCCATGGGAGCTTCTCAGACAGTTGGTTGTTGAACAAC GTGATGGGACATATACTCCATTCTCAATCCTCGTACCTTACCATGGATGGTATTG TA ACTATTGTTTCGATATTCGATTATGATTACTGTTCTTTCAGATGAAGAATCTGTAC CCTAATTGTTTTTGTGTTACCAAGGAGAATTAGCCACAAGACCCATCACCAGAATCA CGGCAATGTGGAGAAAGATGAATCCTGGGTTCCA GTAAGTTGACATGCAGTTTGC TCTAAAATGCAGAGTCCTCTGTTTTTGTGTGTTCTTGTGCTTTAATGACGATGATA ATGAAATTGAAATTTGTAATAGCTGCCGGAGAAGGTGTACAAGAGCTTGGATACC GGCACCAAGTTCATGAGGTTACCATCCCTCTCCCAATGTTTGCGTATCCTATCTA CTTGGTAAGTAAACAGACTGACTCCAAAGTAGGA ACTAATGACAATTTTGACCC GACCTGGTTTGGTTGACTCGGGTCGATATGTTTCGGGTGGGTAATTACCCGATCTG GCGATGGGTGTGCGGCGGACATTGTCTTGCTCGTGGTCCACCCCGCTCCCAACCC GCCCCATTCTTGACGAAAAAGATTTCCGAATATGTATCAACAGAAAAATCTAGTT TTTATGTTACTAGTTTTCTGTATTTCCATGTTTTTCTCAATTCTAGCCGGAATTTG AATTCAAACTGAAATCGGGTAATTCGTCATAACAAAACGGAATTGGGCAGCC GTAATTAGTTGAACTAGACCTCAATTTTGGCGGAATTGGACCCGGCCATTTTTTA CGTTTGCAAAACGGAAAAACGTTTTTCTTTTGTAAGCGCAAAATGAAAAACGTAT CTAGTGGAATTATTGGACCCATCTAGAATGGGTCCAATTCCACCCCAATTTCCGGCT CCAATTCATGCCCGGAAAAACACTACTGTCATGCATTTTAATCTTGATGGTTTTAC CCCAATGGATGCAGCGATGGATCCGGACGATTTTTAAAATATTATCGGGTTAAAT TAAAAAATATCTTAAAACTATAAGAAAAAAATAACCAATTTTAAAGAATAAAAG AACTGGACACATATGACGGGTGTCGTGGATGGATGTACTTGTCCCGCTCTATTAA AGGCTGATAATATACAGGTCAACGGTGAATGAAGGTTAGATGCGCTATTGGATTT GAATCCGATATGAAATGATAATTTTGGACACGATCTGTTTTGGGTGGGTAATATTT GATCTAGGGATGGCTCGTGCTCCAAACCGCACCAAAACCGCCTAATTCTCGACCA AAAAGATTTTATGAATACATATCAACAGAAAAATCTAGTTTTCATGTTACTAGTTT TATGTACAACAATATTAGGTGTCGTTTTCCAGCCTTTTTCTTCAATTCCGGCCGGA ATTCGCATTCAAACCGGAATTGGATGGAATCGGTATACCTCGTCACGGATGCATT GTCAATTCCTAGTTAGTTTCATGGTTTTGAAACCAATCAATCTATTCTATATGGTTT TGATTAACA GTGGAGGAGAAGTCCGGGGAAGAAAGGGTCGCATTTCAACCCATA CAGTGACCTGTTTCGCACCGAACGAGAGGACATCGGT CATGATTTTCGACATTGTGC TGGACAGCCATGGCCTTACTCCTCTGCTACTCATCGTTCATCTACGGCTTCCTTCCG GTCTTCAAAATCTACGGCGTCCCTTATCTAATATTCGTGGCGTGGCTCGACATGGT GACCTACCTTCACCACCACGGGTACGAGCAGAAGCTGCCGTGGTACAGAGGCAA AGAGTGGAGCTACCTACGTGGAGGGCTGACGACCGTCGATCGAGATTACGGGGT CATCAACAACATCCACCATGACATTGGCACCCATGTTATTACCATCTCTTCCCTC AAATGCCACACTATCACCTAGTCGAAGCGGTAAGGAGGTCTTGATTATTA ACTTA ATGTTTTTGTGTTATAATTTGAGTCCGATTCTGGAGTCAGGGGATTTCTTCTTGG ATCCGATCCAGGATCAAGCTGGTCCCTTGAATTTCTATATGATCTTATATTAATTA AGGATAATGTGGTCATATGTTTTTAAATATTTTTGTTTACCATCATTTTCGATCACC GGAAAATGTCCTGAGCAGTTTTCCGGTCACTTTAACCTCCATTGACAAATTTTTTC</p>

	<p> ACCCACATGATCACCTAGCCGGGTTTACGTTTATTGAAAATTTTTATTTTTTTGAA TTTTTTTTTCGATGACCAACTGTACAACTTTGTATTGAAAGTTGTATGGATCATACA AATGTGTATGTACAAAAGTATATTCTAAGTACTATACTAAGCATTACTTAGTATTA CGTTTCTACAAACCTATAGAGAAATGCATACAATTTTGTATAGAAGTTAGTATAC ACGTAGCTGTGAAATGTCAATTTCCCTCCGTATTTTCAGAGACAAGACATGATTTT TAGACTGGCAGATTTTTTTTTATCGGATAGATTTCTCCAACCTTCAGATTTCGGACTGG ATTATTAAGTATATTATTCATCAACTCTGACGTTTGATGTTGCATGTGACAGACTC AGGCAGCGAAGCACGTGCTGGGGAAGTACTACAGAGAACCGAAGAAATCAGGG CCTTTCCCATTCCACTTGTTTGGGTACTTGGTGAGGAGCCTGGGCGAGGATCACTA CGTTAGCGATACAGGCGACGTCGTTTTCTATCAATCTGACCCACATATTCCCAAGT TCCCTACCAGTGCCACCACCAAGTCCAAATCTAGCTGA </p>
<i>FAD3b</i>	<p> ATGAGCCCTCCAAACTCAATGAGTCCCACCACCAACGGCAATGGTGTGGCTATGA ATGGGGCGAAGAAGCAGCTCGATTTGACCCGAGTGCTGCCCCCCTTTCAAGAT TGCAGACATCCGTGCTGCAATTCCGCCGCATTGCTGGGTGAAGAACCCCTGGAGG TCGCTCAGCTACGTCCTGAGAGACCTCCTTGTCATCCTCAGCTTCGCCGTTGCGGC GGCAAAGCTGGACAGCTGGACTTTCTGGCCTCTTTACTGGGTGCTCAAGGAACC ATGTTCTGGGCAGTCTTTGTTCTTGACATGATTGGTAAACTAATTCACATTTTCT TTCTGGTAATGTGGGTTTTATTGAAAAAGATTAAAACTTTTTATCTGGGTGTTGCA TGCAGTGGCCATGGGAGCTTCTCAGACATCTGGTTGTTGAACAATGTGATGGGAC ATATACTCCATTCTCAATCCTCGTACCTTACCATGGATGGTATTGTAAGTATTGTT CAATATTAGATTATTGCTAGTTCTTCAGCTGAAGAATCCAAACCCTAATTTTCTTTT TCTGAATATTGACCAGGAGAATTAGCCACAAGACCCATCACCAGAATCACGGCA ATGTGGAGAAAGATGAATCCTGGGTTCCTGTAAGTTGACATGCAGTTTGCTGTAA AAATGCAGAGTGCTCTGTTTTTTGTGTTCTTGCTTTAATGGTGATAATAATGAA ATTGTTGAAATGTAACAGTACCGGAGAAAGTGTACAAGAGCTTGGATACCAGC ACTAAGTTCATGAGGTTCAACATTCTCTCCCAATGTTTGCTTATCCTATCTACTTG GTAAGTAAAGAGACTGATAAGACTCCAAAGTAGGAATTAATGACAATTTTGGAC CCGAGCTTCCGACTCGGGTCGATTTATTTCCGGTGGGTACTTACCCGATGCGGCGG ACATTGTTTTGCTCGTGGTCCACCTCGCTCCCAACCCGCCCATTTCTTGACGAAAA AGATTACGGAATATGTATCAACAGAAATATCTAGTTTTATGTTACTAGTTTTCTGT ATTTCCGTGTTTTTCCCCTCAATTCGTCAGAAATTTGAATTCAACTGACATTGGG TAATTCTGTCCATAAGAGAACGGAATTGGGAAGCCGTAATTAGTTGGAATTAGAC CTCGATTTTCGGCGGAATTGGACCCGGCCATTTTTTCGCGTCCGGAAAAGCGTTTCCA GTGGAGTTAGACGCCCATCTAGAATGGGTCCAATTCCACCCCAATTTTCGGGGCTA CCTATTTTTAGTGTACATGCATTTTAGATCTTTTACGGTCTTACCCCGATGGATATT CTTGTCGCGCTCTATTA AAAACTGACAATATACAGGTTGATTGTGAATGAAGATT AGGTGCTGCACGCTCTTCGTGTTCCAACCCGCACCCAAACCGCCCCATTCTCGAC CGAAAAGATTTTATGAATACATATCTACAGAAAAATCTAGTTGTCATGTCCTAG TTTAATGTACAACAGTATAGGTGTCGTTTTCCGCGTCTTTTCTTCAATTCCGGCTG GAATTTCGATTCAAACAGGAATTGGATGGAATTGGTCCCGGATGCATAGTCATTT CCCAGGCAGTTTCATGGTTTTATAACCAATCAATCTAATCTTATGCTTTTGATAAA CAGTGGACGAGAAGTCCGGGGAAGAAAGGGTCCGATTTCAACCCATACAGCGAC CTATTTCGCACCAAACGAGAGGGCAGCGGTCTTGATTCAACATTGTGCTGGACAG CCATGGCCTTACTCCTCTGCTACTCATCGTTCATATACGGCTTCGCTCCGGTCCTCA AAATCTACGGCGTACCTTATCTGATATTCGTGGCATGGCTCGACATGGTGACCTAC CTTCATCACCACGGGTACGAGCAGAAGCTGCCGTGGTACAGAGGCAAAGAATGG AGCTACCTACGTGGAGGGCTGACGACCGTTGATCGAGATTACGGGGTCATCAACA ACATCCACCATGACATTGGCACCCATGTCATTACCATCTCTTCCCTCAAATGCCA CACTATCACCTTGTTGGAAGCGGTAAACAATTTGATTATTAATTTACTGTTTTGTG TTATAATTTGAGTCGGGAGATTTCTTCTTAAATCCGATCCCTGGTCAATCTTGGC CCTTGAATCTTCATATAATCTAAAAATCTAGATTAATCAGGAACAATATGATCAT GTTGTTTAAACTAATTTTGTGGACCATAACCTACCGCCAACTGATGGACCACCGT CTCTGGTTACCGGACCCATCATTCCGGTTACCAAGAAGTTTCTCGATCAGTTTC </p>

	<p>CGGTTACTTTGACCTGCGTTGAGGAAAATTCTTTCACCCACGTAACACTGTGCTC AACTTTACGTTTCTGGAAAGTTTTTCCGATGATTGGCCGTACAATTTTGTACGAAG AGTTGTACGGATCATATAAATGTGTATAAGTTTCTAGAAATCCGTACTGAAATAT ATACATATTTGACTTTTGTATAAAGTGTAATACTAAATACTATACTAAGTGCTGTA CTCAGTATGATACTTAGTACACACATTTGTATGACTATGAAATGTCAATTTTGCCC TTATATTCTCAGCCGTTAGATCTAAGACACAGTTTTTATACGGCTGAAATTTGTGG GGGCTTTGTAGATCGGATCCATAAGTCATTTCTTGGCTCAAGATTCGGACTCGATT ATTAACATATATTATTCATCAACTCTGACGTTTGATGTTGCATGTGACAGACTCAGG CAGCGAAGCACGTGCTGGGGAAGTACTACAGAGAGCCGAAGAAATCAGGGCCTT TCCCATTCCACTTGTTTGGGTACTTGGTAAGGAGCCTGGGCGAGGATCACTACGTT AGCGACACAGGCGACGTCGTTTTCTATCAGTCTGACCCACATATTCCCAAGTTCCG TACCAGCAGTGCCACCACCAAGTCCAAATCCAGCTGA</p>
<i>FAD3c-1</i>	<p>ATGAGCCCTCCAACTCCATGGGAATGGAAGCTGCTCATCCTACCGGCAACGGC AATGGCGTCGCAGTCATGAACGGCGCCTCCGCTAACAAACCCGATTTTCGATCCCA GCGAGGCTCCTCCCTTCAAGATTGCCGACATCCGAGCCGCCATCCCCCGCATTG CTGGGTGAAGAATCCATGGAGGTCTCTTAGCTACGTCCTTAGGGACGCCGTCGTC ATTCTCGCATTTCGCAGCTGCCGCCCTCAAGCTCGACCTCTGGGCTGTTTGGCCGCT CTACTGGATCGCTCAGGGCACCATGTTTTGGGCTGTCTTCGTTCTCGGCCACGATT GGTAAGAGGAGGAGGTTTTTTTTTAAATTTCAATCCGATGCTGTTTTGTTATATTA TTGGTTGATATGATATATAAGATTAACCCTAGAGAAAAGTGAAAAGCATCCGCCA TTGTTGAATGAATTGGAATTGGATGGTGCAACGGCCATGGGAGTTTCTCGGATAG CTGGTGGCTGAACAATGTGGTGGGGCATATTCTGCATTCTGCAATCCTTGTGCCTT ACCATGGATGGTAAGAAAAGAATATGAACAGATCCTTTATCCTTACAACGTGAAA ATGTAGGTCATTACAGCTGAACTAAAGTCACATTCTGTGTTGTTAATTGATTGAAC AGGAGAATTAGCCACAAAACACACCACCAGAATCATGGCAATGTTGAGAAAGAT GAATCATGGGTTCGGTGAGTTTTATTTCATTTTTCTCTCGTCAATTGGCATCAGT TTGTTCTGTTTCAATGCTTGATATGAATTGGGTGATATAATGCACTGCCGGAGAA AGTATACAAGACCCTGGACACAAGCACCAAAATTCATGAGGTTCACTATCCCTCTC CCAATGTTTGCTTATCCTATCTACTTGGTAAGAACCACCCACATTCTTACATCCTT GCATGTTGTGATTGTTTTCTGGTTGGATTTGGATTCAGATTGGGGAATTGATTGT GTGCCTTTGAAATGAATGAATGGTTACA GTGGACGAGGAGCCAGGGAAGAAAG GGTCCCATTTC AACCCCTACAGTGACCTGTTTGCCCCACAAGAAAGGAAATCAGT CTTAATCTCTACCATCTCTTGGATTTCCATGGTCCTAATCCTCCTCTACGCCTCCTT CCTTTTTGGTTTCCTCACTGTCTTCAAAGTCTATACCGTCCCTTACCTGGTAAAACT ACTATCTCCAAATTCAACAATCTGTAAGCTTCATTTCAATTTGCTTTGGCTCCTGAGT TCCCTGTCAAGTTTCTCCTAGCAGTGTAACCTTGTTATTTGATAACTTTGTGCCATCT CACTATTGGCTGCATTTTACTATAATCAAACCTGCTACATACGTTATTGCAACTTGTT AATCCTTGGTACGAGGAATCCAATGAATAGGATGGTGATTAGCACAAACAAGGC TGAAACTTTGAGCAATTTTGCA GATATTTGTGGCGTGGCTGGACATGGTGACATAC CTGCACCACCACGGGCACGAAGAGAAGCTGCCGTGGTACAGAGGTCAAGAGTGG AGCTACCTACGTGGAGGGCTGACAACCGTAGATAGAGATTACGGGATTATCAAC AACATCCACCACGACATTGGCACTCACGTGATTACCATCTGTTCCTCAAATCCC TCACTACCATCTCGTAGAAGCGGTACAGTAGTAGTAAACAAAACCCCATATTATT ATTACTTACTGCAGTGATTTCTGACTCTATATTATTAATATCACTTCTGGGTTTTT GGCCGCGGGGGGGGGGGGGGGGGGGGGGGGTTGTTTGATCTTTCGAACTTATAAT AATATGATATTATTATTA AAAATGGTGGCAGACAAAGGCAGCAAAGTCGGTGCTTG GGAAGTACTACAGAGAGCCAAAGAAATCAGGACCATTCCCATTCACCTTGTTTCA CAACTTAGTGAGAAGCCTTGGCGAAGATCACTATGTTAGTGATGCAGGGGATGTC GTGTTCTATCAGTCTGACCCAGAAATCTTCAAGTTTCCAAGTCCAAGTCAGCCTA A</p>
<i>FAD3c-2</i>	<p>ATGGGAATGGAAGCTGCTCATCCTACCGGCAACGGCAATGGCGTCGCCGTCATGA ATGGCTCCGCCGCTAACAAACCCGATTTTCGATCCCAGCGAGGCTCCTCCGTTCAA GATTGCCGACATCCGAGCCGCCATCCCTCCGCATTGCTGGGTGAAGAATCCATGG</p>

	AGGTCACTCAGTTACGTCCTTAGGGACGCCGTTGTCATTCTCGCATTGCGCGCTGC CGCACTCAAGCTCGACCTCTGGGCTGTTTGGCCGCTCTACTGGATCGCTCAGGGC ACCATGTTTTGGGCTGTCTTCGTTCTCGGCCACGATTGTAAGAGGAGGAGTTGTT TTTTTAAATATTTATCCGATGCTGTTTTGTTATATTATTGGTTGATATGTAAGATTA ACCCTAGAAAAAGTGGAAAACGTCCGCCATTGTTGAATTGAATTGGAATTGGAT GGTGCA GCGGCCATGGGAGTTTCTCGGATAGCTGGTTGCTGAACAATGTGGTGGG GCATATCCTGCATTCTGCAATCCTTGTACCTTACCATGGATGGTAAGAAAAGAAT ATGAACAGATCCTTTATCCTTGAAACGGTAAAAATTTAGGTTATTCAGCTGAAACA AAAGTGACATCCTGTGTTGTTCTTTATTGATTGAACAGGAGAATTAGTCACAAAA CTCATCACCAGAATCATGGCAATGTTGAGAAAGATGAATCATGGGTTC CGGTGGG TTTTATTTCTCTTCCTTACTTGTCAATTTGCCATCATTGTCTGTTTCACTGATTGAC ATGAACTGGGTGGGAAAATGCAG CTGCCAGAGAAAGTGTACAAGACTCTGGACA CAAGCACAAAATTCATGAGGTTCACTATCCCTCTCCCAATGTTTGCTTATCCTATC TACTTGGTAAGAACCACCCTACATTCTCACATCCTTGCATGTTGTGTATTGGTTTCT GGTTGGATTTGGATTCAGATTTGGGAAATTGATTGTGTGCATATGAAATGAATGA ATGGTTACAGTGGACAAGAAGCCCAGGGAAGAAAGGGTCCCATTTCATCCCTA CAGTGACCTGTTTGCCCCACAGGAAAGGAAATCAGTCTTAATCTCTACCATCTCTT GGATTTCCATGGTCCTAATCCTCCTCTACGCCCTCCTTCTATTGGCTTCCTCACAG TCTTCAAAGTCTACACCGTCCCTTACCTGGTAAAACTCCACCCTTGGTTTACTAG CTTCAAATTCACAATCTATCAGCTTCATTTCAATTTGCTTTGGCTCCTAAGTTCCT CTTAAGTTTCTCGTAGCAGAGTAACTTGTCTATTTGTTAACTTTGTGCCATCTCCCT ATTGGGTGCATTTCACTATAATCAAACCTGCTACATGCATACTGGAATGTCCATATT GTAATTTGCTATAATCCTTGGTACGAGAATCCAATGAATAGGATGGTGATTAGAA CAAGAAAGACTGAAACTTTGAGCAAATTTTGCA GATATTTGTGGCGTGGCTGGAC ATGGTGACATACCTGCACCACCACGGGCACGAAGAGAAGCTGCCGTGGTACAGA GGCAAAGAGTGGAGCTACCTACGTGGAGGGCTGACAACCGTAGATAGAGATTAC GGGATTATCAACAACATCCACCACGACATTGGCACTCACGTGATTCACCACCTCT TCCCTCAAATCCCTCACTACCATCTCGTAGAAG G GTA CTCTAGTAAACAAAACC CATATTATTACTTACTGCAGTGATTCTGACTATGTTATTATTAATATCAGTT CTGGGTTTTGGCCTTTGGGGGGGTTGTTTGGATCTTTGGCACTTATAATATTATTA AAATGGTGGCA GACAAAGGCAGCAAAGTCGGTGCTGGGAAGTACTACAGAGA GCCAAAGAAATCAGGGCCATTCCCATTCCACTTGTTGACAACCTTAGTGAGAAGC CTTGCGGAAGATCACTATGTTAGTGATGCAGGGGATGTCGTGTTCTATCAGTCTGA CCCAGACATCTTCAAGTTTCCAAGTCCAAGTCAGCCTAA
FAD3d-1	ATGGCGAGCTGGGTTCTATCAGAATGCGGCATAAAGCCACTCCCTTCCGCCTTCC CTAAGCCCAGAACCGGAGCGCTTTCCCGAAATACCCTCCCCAAGCTCAGGTATTT ACCCCCGAGGAGCAATCTCTCCGCCGCTGCCGACGGCGGCGCCTCAGATCTAAGC CTTAACCTACCTAAATTATCCTCCGTAGAGAAGAAAAAGCCGCTTTTGGGACAGG TGAGAGTTACTGCTCCGTTCAAGGTCGCTCCGGTGAAGGAGGAAGACGGAGAAG GAGAGTCCAATTCGACCCAGGAGCGCCGCCGCGTTCAATTTGGCCGACATTTCG AGCTGCTATACCCAAGCATTGCTGGGTAAAGATCCATGGAGGTCAATGGCTTAC GTGGCGAGGGACGTGGCCGTTGTTCTCGGATTGGCAGCTGCCGCAGCTTATCTGA ACAATTGGATCGTTTGGCCGCTGTATTGGGCGGCTCAGGGGACCATGTTCTGGGCT CTCTTTGTTCTTGGCCATGACTGGTGAGTAAAGTTGTTAACTTTCTCTTTGGTCTTTT ATGCTAATCTTTGTAATAATGAAAATTGAAGAAAAATTCTCATGTTTGGCAGTG GACATGGGAGCTTTTCAAGCAATCACAAGCTGAACAGTGAGTTGGACACATTCT CCATTCTTCAATTCTTGTGCCTTACCATGGATGGTAACTAAAGCTCTCTGCTTTCCT CTGCCATCTGTCAATTTGTTCTTCAATTTTGAAGCAATTTGAAACAAATTTGTAT CAATGTCTTTACAGGAGAATTAGCCATAGGACGCATCATCAGAACCATGGACATG TTGAGAACGATGAGTCATGGCATCCTGTGAGTCTTTGTTTCTAAATCTTATCTATA GGATTGATTCAGATGCTGATGTACTAATTTCTGTGACTTTTTCTGTTTGTCTGTT CTTGAAGTTGTCTGAGAAGATATTCAGGAGCTTGGATGCTACAACCTCGAAGTATG AGGTTACATTGCCTTTCCCCATGCTTGCTTATCCTTTCTATCTGGTGAGTTTGTATC

	<p> TACAAGAAAGTTCCTTTACAAAATGTGGATTTAGTTAACAGAAGCTAAAAGGGTT CTTTCTTCTTGTTCCGTAATGCA GTGGAACCGGAGTCCTGGAAAAAAGGGGTCTC ATTTGACCCGAGTAGTGATTTGTTTGTGGCGAGTGAGAAGAAAGATGTGATCAC TTCCACTGTTTGTGGACAGCTATGGCTGCTTTGCTCGCAGGCTTGTCTTTGTAAT GGGTCCAATTCAGATGATCAAGCTATACGGAATTCCATATTGGGTATAGACAACA TCTTTTGCCTTATCTTGCAAACCTTGTTGTTTCAACTCTCAACCAACCACTCTGCCTC TTGGATGTTTTGTAGGGATTTGTTATGTGGTTGGATTTTGTAACCTTACTTGCATCA CCATGGTCACGACGATAAGCTTCCTTGGTACCGCGGCAAGGTAATCCATGTTCTTT CCTCCTGTGTCCATCTATCTGGTCTTTTCATGTTGAATCACTATATCCTAAAATCTTT TCAATGTATAATTATTGATTCAAACCAAATGAAAAGTCAATTGTTTTGAGATGTCT TTCTAGACTTTCAGTGAGATTTTGTGAACTTATGCTTGGAACCTTGAACAGGAAT GGAGTTACTTGAGAGGAGGGTTAACCACCATTGATAGAGACTATGGATGGATCA ACAACATCCACCACGATATTGGAACCCATGTTATTACCATCTCTTCCACAAATC CCTCACTACCACTTGATTGAAGCA GTAAGCAATAACTTTCCTTTTTCCCTTTAGTTC CATATGCAATCTCTTCAATGGGGACACTGAGAAAAAGAAACAACTTTGACCTG AAAACAAATATCATGATGTTTCAGACGGAAGCTGCAAAGCCAGTGCTTGGGAAG TACTACAAGGAACCAGCAAAATCAAAGCCGCTCCCTTTCCACCTAATCGGAGACT TGATAAAGAGCTTGAAGAGAGACCATTATGTTAGTGACACCGGAGATGTCGTCTA CTATCAAACCTGACCCTGAACTCCAAAGACCTCATCATCATCATGA </p>
FAD3d-2	<p> ATGGCGAGCTGGGTTCTATCAGAATGCGGCATAAAGCCACTCCCTTCCGCCTTCC CCAAGCCCAGAACCGGAGCGCTTTCCCGGAATACCCTCCCCAAGCTCAGGTATTT ACCCCCCAGGAGCAATCTCTCCGCCGCTGCCGACGGTGGCGCCTCAGATCTAAGC CTTAACCTACCTAAATTATCCTCCGTAGAGAAGAAAAGGCCGCTTTTGGGGCAGG TGAGAGTTACTGCTCCGTTCAAGGTCGCTCCGGTGAAGGAGGAAGACGGAGGAG GAGAGTCCAATTCGACCCAGGAGCGCCGCCGCGCTTCAATTTGGCCGACATTTCG AGCTGCTATACCTAAGCATTGCTGGGTAAAGGATCCATGGAGGTCAATGGCCTAT GTGGCGAGAGACGTGGCTGTTGTTCTCGGATTGGCAGCTGCCGCAGCTTTTCTGAA CAATTGGATTGTTTGGCCGCTGTATTGGGCGGCTCAGGGGACTATGTTCTGGGCTC TCTTTGTTCTTGGCCATGACTGGTGAGTGAAAATTCTCAATTTTCGCTACTGTGATT ACTAATCTGATGTAAAAAGTGGGTGGAAAGTTCTCATTTTCCCTTTGCAGTGGAC ATGGGAGCTTTTCAAGCAATCACAAGCTGAACAGTGTAGTTGGACACATTCTGCA TTCTTCAATTCTTGTCCTTACCATGGATGGTAAAAAGCTCTCTGCTTTCCTCTGCT CATCCGCCATTTTGTCTTCAAGTTTGAAGCAATTGAAAAAATAAATTGTATCAATG TCTTTACAGGAGAATTAGCCATAGGACGCATCATCAGAACCACGGCCACGTTGAG AACGATGAGTCATGGCATCCTGTGAGTCTTTGTATCTAAATCTTAGCCATAGGGTT GATTCAGATGCCGATGTACTAATTTCTGTGACTTTGTTTTGTTTCTGTTCTTGAAGTT GTCTGAGAAGATATTAGGAGCTTGGATGCTACAACCTCGAAGTATGAGGTTACACA TTGCCTTTCCCATGCTTGCTTATCCTTTCTATCTGGTGAGTTTGTAGCTGCAAGTA AGTTTCTTTACAAAATATGGATTTAGTTAACGAAGCTAAAAGGGTTATTTCTCCTA ATGCAGTGGAACAGGAGTCCTGGGAAAAAAGGGGTCTCATTTGACCCGAGTAGC GATTTGTTTGTGGCGAGTGAGAAGAAAGATGTGATCACTTCCACTGTTTGTGGAC AGCCATGGCTGCTTTGCTCGCAGGCTTGTCTTTGTAATGGGTCCAATTCAGATGA TCAAGCTCTACGGAATTCCATATTGGGTATAGACAACATCTTTTGCCTTATCTTAC AGACTTGTTGTTTCAACTCTCAACCAACCACTCTGCCTCTTTGATGTTTTTGTAGGG ATTTGTTATGTGGTTGGATTTTCGTAACCTTACTTGCATCACCATGGTCACGACGATA AGCTTCCTTGGTACCGCGGCAAGGTAATCAATGTTCTTTGCTCCTGCGTCTATCTAT CTAGTCTTTCATGTTTAATCACTATATCCTAAAATCTTTTCAATGTATAATTCTTGA TTCAAACCCGATGAAAAGTCAATTGCTTTGAGATGTCTTTCTAGGCTTTCAGTGAC ATTTTGTGAACTTGTGCTTGGAACTTGGAAACAGGAATGGAATTACTTGAGAGGA GGGCTAACCACCATTGATAGAGACTATGGATGGATCAACAACATCCACCACGAT ATTGGAACCCATGTCATTACCATCTCTTCCACAAATCCCTCACTACCACTTGAT TGAAGCA GTAAGCACTAACGTCCCATTTTCCCTTTAGTTCCATACGCAATCTCTTC AATGGGGAACTGAGAAAAAGAAACGAACCTTTGACCTGAAAACAAATATCATG </p>

	ATATTTTCAGACGGAAGCTGCAAAGCCAGTGCTCGGGAAGTACTACAAGGAACCG GCGAAATCAAAGCCGCTCCCTTTCCACCTAATCGGAGACTTGATAAAGAGCTTGA AGAGAGACCATTATGTTAGTGACACCGGAGATGTCGTGTACTATCAAACCGACCC CGAACTCCAAAGACCCTCATCATCATCATGA
SAD2-1	ATGGCTCTCAAGCTCAACCCAGTCACCACCTTCCCTTCAACACGCTCCCTCAACA ACTTCTCCTCCAGATCTCCTCGCACCTTTCTCATGGCTGCTTCCACTTTCAATTCCA CCTCCACCAAATAAGCATCTCCTCCTCCTCGGAATCTCCGCCGATTTCTTTTAAGC GATTGATCGTAGATAAATTTGTGCGTTGCTTACCGTTCATCAAAATCTGCACGGTT CGTTTCTTCTTCTGCGCCTAGATTGCATTATGTCATTGTTGCTTTTCCGATTTGACTG ACCGACATAAATCAATTCCTTTGTGTTTCACGATTCTGGGTTTTGCGCTGTAATTGA TTGTCAGTGTGTTGCACAGGTTTCCCCTTCTCCTCCTCCGTCCATCAAATGCATGTTA TTACCATTTCAATTTCAGTTTCCTTCTCTGAAATATCCGTCTCTGGGAAAATAAGTC TCTGTATCTACTATCCTATCAGCTTGTTTAGGAGAGGTTTCGATATTGTTTTACATAA ACCAATTGGCTTACAGTCCTTGAACGTTCTAAATGTTGGTCGCGGTGATAATAGGT TCTCAAAAGAGGTTTGTCTATGTTGTTGGCAAAATCTTGTTTCTGTGAATCATGTT TAAGGTCCTTGGAAGAATGACTAATGAGCTATGACATGATTACGACGTAGTAGTT ATTGAACTGCTGATAATTCAATATAGGGGTAACCTTTGTTGATTGTTTGGTCACAGG GAGGCTGAGAAGCTAAAGAAGTCACATGGACCACCAAAAGAGGTGCATATGCA AGTGACCCATTCCATGCCCCACAGAAGCTGGAGATATTTAAGTCTCTGGAAGGT TGGGCTGAGGATGTTCTATTACCGCACCTGAAGCCAGTTGAGAAATGCTGGCAGC CACAGGATTTCTGCCCCGAACCTGAGTCGGATGGGTTTCGAGGAGCAAGTGAAGG AGCTCAGGGCAAGGGCCAAAGAACTGCCCGATGACTATTTTGTGTGCTGGTTGG GGATATGATCACCGAAGAAGCTCTGCCGACTTACCAGACAATGCTCAACACCCTT GACGGGGTGAGGGACGAGACTGGAGCCAGCCTTACGCCGTGGGCAATCTGGACA AGGGCGTGGACCGCTGAAGAGAATAGGCACGGTGACCTTCTCAACAAGTATCTA TACCTCTCTGGAAGGGTGGACATGAGGCAAATTGAAAAGACCATTCAGTATCTCA TCGGCTCTGGAATGGTATGTAATCACATACTTCATCCTTTTCTATTAATCTTTGCGT GAACAAAATTCACTACACTGGTAGCAGCTGAAACTTTAGATGATTTTTTTTACTGC CTAGCTTCTATGAAACAAAACCACGTAAGTCAAATAGGGTTGACAATGAGTTCAA GTGGCAAAATTTTCTTATATACCAACTTCGAACCACTTTATATGACATACCAACT CCTAGTTTCGGTTAAAATTCCTCCGTCGAAGATATAATACTTGGATTGGTTAAATGA ATTGTGAAAGGATACACGTGATGTGGTCTGGAATTAATTTGTTTGAATGATCAGTT GGTTTCGGGGCGACAACCTGTGAACTGGAACCACCCTAAGTAAATTTTCTTTCTGTC CTACAAATTTGAGGTTCTCCTTGATCACCTTAGTCCATCTTAGGTTTGCCCGTTAGT AAGATCTGCATTTAGCAGTTTGTCTGGTATTTGATATCACTAGTATCTTTGTTTGA TTCCCTAGCATCTCTGAAACCATCGGACAAGTAGGTGGTTTAGGACAAATTTGGTT CATTGCGGCATTTTTTTGTTTGTATCGCCGTATCATCTGGAAGAAGCAGACAGTTTT GCAAAGTGGCATCAAGCTCAAGAAAGCAACGGCTAGAAGAAGTTCTACATCTGA TGCTTTCCTTTTGTTCCTTTGTGTGCTTTTTGGACTTTGTTCTTTTTCTGTAGGATC CAAAAACAGAAAACAACCCCTACCTCGGTTTCATCTACACCTCATTCCAAGAGAG GGCAACGTTTCATCTCCACGGAAACACAGCCAGACTCGCCAAGGACCATGGGGA CATGAAGCTGGCGCAGATCTGCGGGATCATCGCAGCAGACGAGAAACGGCACGA AACCGCATACACCAAGATCGTCGAGAAGCTCTTCGAGATCGACCCTGACGGTAC AGTGCTGGCACTGGCGGACATGATGAGGAAGAAGATATCGATGCCCGCCCACTT GATGTACGATGGAGAAGACGACAACCTCTTCGACAATTACTCGTCAGTCGCTCAA CGCATCGGGGTGTATACTGCCAAGGATTATGCCGATATCCTGGAGTTCCTGGTGG GGAGGTGGAAAGTGGATGCTTTTACGGGGCTTTCCGGGGAAGGGAACAAAGCTC AGGATTTTGTCTGCGGGCTTCCTGCGAGGATTGCAAAGTTGGAGGAGAGGGCTGC GGGGAGGGCAAAGCAAACGTCGAAATCTGTCCCGTTCAGCTGGATCTTCAGCAG AGAATTGGTACTCTAA
SAD2-2	ATGGCTCTCAAGCTCAACCCAGTCACCACCTTCCCTTCGACCCGCTCCCTCAACA ACTTCTCCTCCAGATCTCCTCGCACCTTTCTCATGGCTGCTTCCACTTTCAATTCCA CTTCCACCAAATAAGTTCCCGTCACCATCTCCTCTTCCCTCGGAATCTCCGCCGTTT

	<p> ATTTAAGCGATTGATCGTAGAAAATCTGTGCGTTGCTTAGCGTTCATTCAAATCTG CGCGTTTCGTTTCTTTTCTTTCTTCAGACTGCCTCGTCTGCATTATGTTATTGTTGCG TTTCCGATTTGACTAACCTACATAATCAATTCCTTTGTGTTTCACGAGTCTGGATTT TGCGCTGTAATTGATTGTCAGCGTTTGACAGGTTTCCATTTCTCCACCTCCGTCCA TCAAATGCATGTTATTACCTACCAATTCAGCGTCTTTCTCTGGAAATTTCTGTCTC TGTATCTACTATCCTATTAGCTTGTTTGAGAGAGGTTCAATATTGGTTTGCATGAAC CAAGTGGCTTACAATCCTTCAACGTTCTAAATGTTGGTCGCAGTAACAATAGGTTT TCAAAAGAGGTTTTTCTATGTTGTTTGGCAAAATCTTGTTTCTGTGAATCATGTTAA GGTCCTGGGAAGAATGATTAATGAGCTATGACATGATTAAGGCGTAGTAGTTATT GAACTGCTGATAATTCAATATAGGGGTAACCTTTGTTGGTTGTTTGGTGACAGGGAG GCTGAGAAGCTAAAGAAGTCACATGGACCACCAAAAGAGGTGCATATGCAAGTG ACCCATTCCATGCCCCACAGAAGCTGGAGATCTTTAAGTCCCTTGAAGGTTGGG CAGAGGACGTTCTGTTGCCGCACCTGAAGCCGTTGAGAAATGCTGGCAGCCACA AGATTTCTGCCCGAACCCGAGTCGGATGGGTTGAGGAGCAAGTGAAGGAGCT CAGGGCAAGGGCTAAAGAACTCCCCGATGACTATTTTGTTGTGCTGGTTGGGGAT ATGATCACCGAAGAAGCTCTACCGACTTACCAGACAATGCTCAACACCCCTGACG GGGTGAGGGACGAGACTGGAGCCAGCCTTACGCCGTGGGCAATCTGGACAAGGG CGTGGACCGCTGAAGAGAATAGGCACGGTGACCTTCTCAACAAGTATCTTTACCT CTCTGGAAGGGTGACATGAGGCAAATTGAAAAGACCATTGAGTATCTCATCGGC TCTGGAATGGTATGTACTCACATCCTATCTGCTCCTTTATCCTTTTCCATTAATCTTT GATTGAACAAAATTCAATAAACTGGTAGCTGAAACTTTAGATGATTGTATAAC TGCCTAGCTTCTATGAGAAAACCACTGAAGTCAAATAGGTTTGACAATGGGTTTA AATGGAAAAAGTTTCATATACCATCTTCCATCTATTTTACATGACATACCAACTTC TACTTCGGAGAAAATTCGCCGTGGATAATCATATTATTGAAGATATAGTACTTAGT AGATTGGTTAGATGAACTGTTAAACAATACATGTGATGTCGTGTGCAATTAATTTG TGTAATGATTAGCTGGGTTGCGGACGACAAATGTGAACTGGAACCCTAGTAAAC TATGAATTGAGGTTGTCCTTCATCACTTTATTCTGTCCTGGGTTTGTTCCTGTTTG CAAGATCTGCATGTAGCAGTTTGTCTGGTATTTGCTACCAGTGGTATCTTTGTTTG ATTCCCTAGCATCTCTGAAAACATCGGACCAAGTATCTGGTTAGGACAAATTTGG TTCATTGCGGCATTTTTTTGTTTGTATCGCTGTATCGTCTGGAAGAAGCAGACAGTTT TGCAAAGTGGCATCAAGCTCAAGAAAGCAACGGCTAGAAGAAGTTCTACATCTG ATGCGTTCCCTTTTGTTCCTTTGTGTGCTTTTGGACTTTGTTCTTTTGCCTGTAGGAT CCAAAAACAGAAAACAACCCCTACCTCGGTTTCATCTACACCTCATTCCAAGAGA GGGCAACGTTTCATCTCCACGGAAATACGGCCAGACTCGCCAAGGACCACGGGG ACATGAAGCTGGCGCAGATCTGCGGGATCATCGCAGCAGACGAGAAGCGGCACG AAACAGCATAACCAAGATCGTCGAGAAGCTCTTCGAGATCGACCCTGACGGTA CAGTGTGGCTCTGGCGGACATGATGAGGAAGAAGATATCGATGCCCCGACACTT GATGTACGATGGAGAAGACGACAACCTCTTCGACAATTACTCGTCGGTCGCTCAA CGCATCGGGGTGTATACTGCCAAGGATTATGCTGATATCCTGGAGTTCTTGGTGG GGAGGTGGAAAGTGGATGCTTTTACGGGACTTTCCGGGGAAGGGAACAAAGCTC AGGAGTTTGTCTGTGGGCTTCCAGCGAGGATTGCAAAATTGGAGGAGAGGGCTGC GGGGAGGGCAAAGCAAACGTCGAAATCTGTCCCATTGAGCTGGATCTTCAGCAG AGAATTGGTACTCTAA </p>
SAD3-1	<p> ATGCAAGCCACCCACCACGTCAGCGCCACCGTCCAGCATGGATGCCACGTGGT GGCCGAACCACCTCCACCACCATCATGCACCTCTGCCCTCCACGCGCCGCCATCA AACTGCTCCGCCGCTCCCCCTCCGCTCACCTGAAACACCAACACAAAACCCA CACAATGCCGGCGGAGAAAATCGAGCTTTCAAGTCCCTCGAGGATTGGGCCTCC GAGAATGTCTCTCCACTTCTCAAGCCCGTCAATAAATGCTGGCAGCCTCAGGACT TCCTCCCCGACCCGTCCCTCTCCGTCGCTGATTTCTCCGACGAGGTAATGAACAAT TGCGTCTCAATACCTTGTATAAGCTACACTTTTACAGGGATTTTGAGCTGGTATTTG ACAAATTCATCAGTTAGGTTTTTTGTCATTACGGATTAGTCATTGTAGTTTTGTCAT TTGTTTCATATAGCTACTCATTTTTTCAGTTCATCAAATTCTCATTTTCTATAGTAAGA TCATTTGGAAGGGTTTTGGAGAGTAATTTCTTGGTCCCACATGATTTGATCGAAAT </p>

	<p>ATTATTTTAGAATACAAAAATAAATTGGGATTTGAAATCACCTCGATAGACTAGG TTCCCCAAAAGGTGATTTCAAATTCATTTTATGGACTTGAGATTTGCAAAATCTCA AGTGATTTGAATAGTAAATGATCAAATTATCTTGTTGAGTTTAAAGTGAACGAGAT AACTTAAGGGGTGCATTAGTCATTTAAAAAATCAAATTTTTTTTTTAAATTTTCAAA ACTATTTTGTGATTGACCGTTAAACCAGTTCGGTTTGATACTGATTTTGAGTTTGA CTGACAGGTGAGGTTGTTGAGGGAAAGGACGGCGGAGCTACCGGACGAGTACTT CGTCGTCTTGGTGGGTGACATGATAACGGAGGATGCGTTACCGACGTACGAGACC ATGATCAACACACTTGACGGCGTTAGGGACGAGACGGGCGCCAGTCAAAGCCCA TGGGCCTTGTGGACCCGGGCCTGGACCGCCGAGGAGAATCGCCACGGCGATCTG CTTCGGACCTTTCTGTACCTATCGGGTCGGGTGACATGAAGATGGTAGAAAGGA CTGTTCACTACCTCATTGGATCTGGCATGGTAAGTGTAGAATAGCCCTTTCGGTAT TCCGAACCGGTTTGATCCGTCAGTGGGATCGTTCGTTTCGATTAATCGTTTCGATTAA TCGGGTGATGAGTATGCCAAATATTTATCACTTGATTTGATTTGATAGTACATTTTA TAAGCTAGTGTTAGCTAATTATATTGTTTGAGAATGTCACGAATTCGAAGGAGAA AAAAACCAAAATGCCACTTGATAATTTATTTTACATGATATAGTCATTGAACCTT CAATCTTTTTACAAATCGGATCCAAATTTGTGTACGCAGTGGTCACTCAACTGTCA TTTTAGAATAGGAATAGCACTTTAACAAGTGATTTACTCGGGTCGGGTAACATTA CAGGACCCGGGCACAGAGAACAACCCGTAAGTGGGGTTCGTGTACACGTCATTCC AGGAGCGAGCCACATTCATATCTCACGGCAACACGGCTCGGCTAGCCAAGGAAG GAGGGGATCCGGTACTCGCACGGATATGTGGCACCATAGCATCGGACGAAAAGC GACACGAGAACGCCTACACGCGCATCGTGGAGAAGCTCCTAGAGGTGGACCCGA ACGGTGCGGTTTGTGCGGTGGCCGACATGATGCATAAGAAGATCACAATGCCGG CGCACCTGATGTACGACGGGGAGGACCCGAAGCTGTTTGAGCACTTCTCATCGGT GGCTCAGCGGCTCGGGGTGTACACCGCACAGGACTACGCAGACATACTCGAATT CTTGATCGGACGGTGGGGACTGGACAAGGTGGAGCAAGGGCTGGACGGTGAAGG GAGGCGGGCGCAGGATTTCTGTGTGGGCTGCCGCAGAGGATCATGCGGCTCCA GGAGCGAGCCGATGAGAAGGCTAAGAAGATGAAGAAGCCGGAAGCCGTCAAGT TTAGCTGGATTTTCAAACGGCAAGTCGTTTTGTGA</p>
SAD3-2	<p>ATGCACCTCTGCCCTCCACGCGCCGCCATCAAAACTGCTCCGCCGCCGCCTCCTC CGCTCACCCCTGAAACACCAACACAAAACCCACACAATGCCGGCGGAGAAAATCG AGCTTTTCAAATCCCTCGAGGATTGGGCCTCCGTCAATGTCCTCCCACTTCTCAAG CCCGTCGACAAATGCTGGCAGCCTCAGGACTTCCTCCCCGACCCGTCCCTCTCCGT CGCTGATTTCTCCGACCAGGTAATGAACCATTGTGTTCCAATAACTCGTATTGTAA TGTTACTCGTATTTTGAGCTAATATTTGATAAATTCGTCACCTAACTTTTTTGTCTTG ACGGATTAGTCATTGTAGTTTTATTATTTGTTTCGATTTTCAGTTAAATAATTCTCATT TTTTATAGTAAGATCATTTGGAAGGAATTTGGAGAGTAATTTTCATGGTCCTGGGTT GATTTGATCGAAATATCGCGTTGGAACACGAAAATAAAGGTGGATTTGAGTAGA AAATAACCAAATTGACTTGTTGAAATTGTATTGTTGAGTGAACAGGGGGTTTATTA GTCATTTACAAAATTAATAATGTTTCTTTTAATGTCCAAAACCTCAACTAAACACTGA TTTTGAGATTGGCCGTTAAACCAGTTCGGTTTGATAAATACTGATTTTGAGTTTGA CTGACAGGTGAGGTTGTTGAGGGAAAGGACGGCGGAGCTACCGGACGAGTACTT CGTCGTCTTGGTGGGTGACATGATAACGGAGGATGCGTTACCGACGTACGAGACC ATGATCAACACCCTTGACGGCGTTAGGGACGAGACGGGCGCCAGTCAAAGCCCA TGGGCCCTATGGACCCGAGCCTGGACCGCCGAGGAGAATCGCCACGGGGATTG CTCCGGACCTTTCTGTACCTCTCGGGTCGGGTGACATGAGGATGGTTGAAAAGA CTGTTCACTACCTCATTGGATCTGGCATGGTAAGTGCAGAATAGTCCTTTTTGTA TTCCGAACCTGGTTTGATCGGTTGTTTGGTTCGTTTCGTTTGTTAATTGGGTGATGAGT ATGCGAAATTGTCATAAATTATCACTTCATAGTACATTTATAAGCTAGTGTTTAG TAACAATAGTTTAAGAATGTTACAAATTTGAACCGGGGAAAAACCAAAATGCCA CTTGATAATTTATTTTGCATGATATAGTCATTGAACCTTTAATCTTCTTACAAATC GGATCCTAATTTGTGTACACATTGGTCACTCAACTGTCATTTTAGAATAGGAATAA CATTTTAACAAGTGATTACTCGGGTCGGGTAACAATTGCAGGACCCGGGCACGGA GAACAACCCGTAAGTGGGGTTCGTATACACGTCATTCCAGGAACGAGCCACATTC</p>

	ATATCGCACGGCAACACGGCTCGGCTAGCCAAGGAGGGAGGGGATCCGGTACTT GCACGAATATGCGGCACCATAGCATCGGATGAGAAGCGACACGAGAACGCCTAC ACGCGCATCGTGGAGAAGCTCCTCGAGGTGGACCCGAACGGTGCGGTTTGTGCCG TGGCCGACATGATGCGTAAAAAGATCACAATGCCGGCGCACCTGATGTACGACG GGGAGGACCCAAAGCTGTTTCGAGCACTTCTCGGCGGTGGCGCAGCGGCTCGGGG TGTACACGGCGCAGGACTACGCGGACATACTGGATTTCCTGATCGGACGCTGGGG GCTGGACAAGGTGGAACAAGGGCTGGACGGTGAAGGGAGGCGGGCGCAGGATT TCGTGTGTGGGCTGCCGCAGAGGATCATCCGACTCCAGGAGCGAGCCGATGAGA AGGCTAAGAAGATGAAGAAGCCGGAAGCCGTCAAATTTAGCTGGATCTTCAAAC GGCAAGTCGTCTTGTGA
3896	
<i>FAD2a-1</i>	ATGGGTGCCGGTGGCAGAATGTCAGTGCCTCCATCATCCAAACCTATGAAGAGGT CTCCTTACTCAAAGCCACCATTACGCTCGGTGAGCTCAAGAAGGCCATCCCTCC ACACTGTTTCAAACGCTCAATCCCCCGATCGTTCGCCTACGTGGCGTACGACCTCA CCATTGCAGCAATCTTCTACTACATCGCCACCCTTACTTCCACCTCCTCCCTAGC CCTCTCAACTACCTCGCCTGGCCGGTCTACTGGGCCTGCCAGGGCTGCATCCTCAC TGGAGTATGGGTGTTGGCTCACGAATGCGGTCACCATGCCTTCAGCGACTACCAG TGGCTCGACGACATGGTTGGCTTCGTCTCCATTTCGTCCCTCCTTGTTCTTACTTC TCCTGGAAGCACAGCCACCGCCGCCACCATTCCAACACGGGATCGCTTGATCGTG ATGAGGTGTTTGTCCCCAAGCAGAAGGCCGAAATCGGGTGGTACTCCAAGTACCT TAACAACCCACCTGGCCGTGTGATCACATTGGCCGTCACATTAACGCTCGGTTGG CCTCTGTACTTGGCATTCAACGTCTCCGGGAGACCATATGACCGGTTTCGCATGCCA TTTTGACCCTCACGGTCCGATTTACAATGATCGCGAGCGTATGGAGATATACCTAT CCGACGCAGGGATATTCACCGTGTGCTACATCCTATACAGACTCGTCCTCACGAA AGGACTCGTTTGGGTCTGTCCATATACGGAGTCCCACTATTGATAGTGAATGGAT TCCTAGTCCTCATCACTTTCTTGACGACACACGCATCCTTCTCTTCCGCACTACAAGT CCTCCGAATGGGACTGGATGCGAGGCGCCCTCTCGACCGTGGATCGAGACTACGG GTTACTCAACACCGTGTTCACAACATCACCGATACACATGTCGCGCACCATCTC TTCTCCACGATGCCTCATTACCACGCGATGGAGGCTACCAAGGCGATCAAGCCGG TTCTCGGGGAGTATTACCAGTTCGATGGGACTCCCTTTGTGAAGGCCATGTGGAG GGAGGCAAAGGAGTGCATCTATGTCGAGCCGGATGAAGGCGACCCAGCCAAGG CGTGTTCTGGTACAACAACAAGCTGTGA
<i>FAD2a-2</i>	ATGGGTGCCGGTGGCAGAATGTCAGTGCCTCCATCATCCAAACCTATGAAGAGGT CTCCTTACTCAAAGCCACCATTACGCTCGGTGAGCTCAAGAAGGCCATTCTCTCC ACACTGTTTCAAACGTTCAATCCCCCGATCGTTCGCCTACGTGGCGTACGACCTCA CCATTGCAGCAATCTTCTACTACATCGCCACCCTTACTTCCACCTCCTCCCTAGC CCTCTCAACTACCTCGCCTGGCCGGTCTACTGGGCCTGCCAGGGCTGCATCCTCAC TGGAGTATGGGTGTTGGCTCACGAATGCGGTCACCATGCCTTCAGCGACTACCAG TGGCTCGACGACATGGTTGGCTTCGTCTCCATTTCGTCCCTCCTTGTTCTTACTTC TCCTGGAAGCACAGCCACCGCCGCCACCATTCCAACACGGGGTTCGCTTGATCGTG ATGAGGTGTTTGTCCCCAAGCAGAAGGCCGAAATCGGGTGGTACTCCAAGTACCT TAACAACCCACCTGGCCGTGTGATCACATTGGCCGTCACATTAACGCTCGGTTGG CCTCTGTACTTGGCATTCAACGTCTCCGGGAGACCATATGACCGGTTTCGCATGCCA TTTCGACCCTCACGGTCCGATTTACAATGATCGCGAGCGTATGGAGATATACCTAT CCGACGCAGGGATATTCACCGTGTGCTACATCCTATACAGACTCGTCCTCACGAA AGGACTCGTTTGGGTCTGTCCATTACGGAGTCCCACTATTGATAGTGAATGGAT TCCTAGTCCTCATCACTTTCTTGACGACACACGCATCCTTCTCTTCCGCACTACAAGT CCTCCGAATGGGACTGGCTGCGAGGCGCCCTCTCGACCGTGGATCGAGACTACGG GTTACTCAACACCGTGTTCACAACATCACCGACACACATGTCGCGCACCATCTC TTCTCCACGATGCCTCATTACCACGCGATGGAGGCTACCAAGGCGATCAAGCCGG TTCTCGGGGAGTATTACCAGTTCGATGGGACTCCCTTTGTGAAGGCCATGTGGAG GGAGGCAAAGGAGTGCATCTATGTCGAGCCGGATGAAGGCGACCCAGCCAAGG CGTGTTCTGGTACAACAACAAGCTGTGA

<i>FAD2b-1</i>	ATGGGTGCTGGCGGAAGAATGGCCGTGCCTCCATCGAACAAGGCGGACTCCGAA ACCTTTAAGCGGTCTCCTTACTCAAAACCTCCCTTCACTCTTGGTGAGATCAAGAA AGCCGTCCCTCCACACTGCTTCAAAAGGTCCATCCCCGCTCGTTCTCCTACGTGG CTTATGACCTCACCATAGCCGCCATCTTCTACTACATCGCCACCACTTACATCCAC CTCCTCCCCAATCCTCTCTCCTACGTGGCGTGGCCGATCTACTGGGCCTGCCAAGG CTGCGTCCTCACTGGTGTCTGGGTCTAGCCCACGAATGCGGTCACCATGCCTTCA GCGACTACCAATGGCTCGACGACTTGGTCGGCTTTGTCCTCCACTCATGCCTCATG GTACCCTACTTCTCGTGGAAGCACAGCCACCGTCGCCACCACTCCAATACTGGGT CCCTCGAACGAGACGAGGTTTTTGTCCCCAAGCAGAAATCAGCCATTGGCTGGCA CTCAAAGTACCTCAACAACCCACCTGGCCGTGTGCTCACACTTGCAGTCACTCTC ACTCTCGGCTGGCCTTTGTACTTGGCATTCAACGTCTCTGGAAGGCCGTACGACCG GTTGCGCTGCCATTACGATCCTAAATCCCCCATCTACAACGACCGCGAGCGAACG GAGATATTCTTCTCCGATGCTGGCATCCTTGCTGTGAGCTTTGCGCTCTACAAGCTT GCTGTGCCAAGGGACTGGCTTGGGTGGTTTGTGTCTACGGAGTCCACTCCTTGT AGTGAATGGATTCTTGTCTTGATCACTTTCTTGACGACACCCACCCATCATTGC CGCACTACAAATCCTCCGAATGGGACTGGCTGAGAGGTGCTCTGGCGACCATGGA CAGAGACTACGGGTTTCTGAACACGGTGTTCCATAACATCACGGATACCCACGTG GCGCACCACTGTTCTCGACGATGCCTCATTACCATGCAATGGAAGCTACAAAGG CGATCAAGCCGGTATTGGGAGAGTACTACCAATTCGACGGGACTCCATTATCAA GGCGATGTGGAGGGAGGCTAAGGAGTGTGTTTATGTCGAGCCCGACGAAGGTGA CCAGAACAAGGCGTGTTCTGGTACAACAACAAGCTGTGA
<i>FAD2b-2</i>	ATGGGTGCTGGTGGAAGAATGGCTGTGCCTCCATCGAACAAGGCGGACTCCGAA ACCTTTAAGCGGTCTCCATACTCAAAACCTCCATTCACTTGGTGAGATCAAGA AAGCCATCCCTCCACATTGCTTCAAAAGGTCCATCCCCGCTCATTCTCCTATGTG GCTTATGACCTCACCATTGCCGCCATCTTCTACTACATCGCCACCACTTACATCCA CCTCCTCCCCAATCCTCTCTCCTACGTTGCGTGGCCTATCTACTGGGCCTGCCAAG GCTGCGTCCTACCGGTGTCTGGGTCTAGCCCACGAATGCGGTCACCACGCCTTC AGCGACTACCAATGGCTTGATGACTTGGTCGGCTTTGTCCTTCACTCATGCCTCAT GGTCCCCTACTTCTCGTGGAAGCACAGCCACCGTCGCCACCACTCCAACACCGGG TCCCTTGAACGAGATGAGGTTTTCGTCCCCAAGCAGAAATCGGCCATCGGCTGGC ACTCAAAGTACCTCAACAATCCACCTGGCCGTGTGCTCACACTTGCAGTCACTCT CACTCTCGGCTGGCCTTTATACTTGGCATTCAACGTTTCCGGAAGGCCGTACGACC GGTTCGCTGCCATTACGATCCTAAATCCCCTATCTACAACGACCGCGAGCGAAC TGAGATCTTCCTCTCCGATGCCGGCATCCTTGCTGTGAGCTTTGCAATCTACAAGC TTGCTGTGCCAAGGGACTGGCTTGGGTGGTTTGTGTCTATGGAGTCCACTCCTT GTAGTGAATGGATTTCTTGTCTTAATCACTTTCTTGACGACACCCACCCATCATT GCCGCACTACAAATCCTCCGAATGGGACTGGCTGAGAGGTGCTCTGGCGACCATG GACAGAGACTACGGGTTTCTGAACACGGTGTTCCATAACATCACGGATACCCACG TGGCACATCACCTGTTCTCGACGATGCCTCATTACCATGCGATGGAAGCTACCAA GGCGATCAAGCCGGTACTGGGAGAGTACTACCAGTTCGATGGGACTCCATTATC AAGGCGATGTGGAGGGAGGCTAAGGAGTGTGTCTATGTTGAGCCTGACGAAGGT GACCAGAACAAGGCGTGTTCTGGTACAACAACAAGCTGTGA
<i>FAD2c-1</i>	ATGTTCTCATCCTCTGCAACTAAAATGCCGGCGCCGCTTCATCATCCAACACGA CCATGAAGCGATCGCTCACTCAAAGCCGCCGTTACCGTCTCCGACGTCAAGAA AGCCATTCCACCACACTGCTTCCAAAGGTCCCTCCTCCGATCATTCTCCTACCTAA CCTACGACCTCACCATCATCACAATCCTCTACCAAGTCGCCACCACTTACTTCCAC CTCCTCCCGACACCTCTCTCATCCTACGTGGCATGGCCGGCCTACTGGGCCGGCCA AGGCTGCTTCTTCGTCGCTGTATGGATGGTGGCCACGAGTGTGGCCATCACGCCT TCAGCGACCAGCACTGGCTGGAAGACTCGGTTCGGATTATCCTCCACTCAGCCCT CCTTTCACCTTACTTCTCATGGAAGCACAGCCACCGTCGCCACCATGCCAACACG AGCTCCCTCGAACGTGACGAGGTGTTCTGTCCTAAACCAAGTCCAAGCTGAGCT GGCACTTCAAGTTCTTCAACAACCCGCTGGCCGCGTCTGCAGTTGGCATTGTCT CTGCTTCTTGATGGCCTCTCTATTTGGCGATCAACATCGCCGGAAGGCCGTACGA

	GAAATTCGCTAGCCACTTCGATCCGAGAAGCCCTATCTACAACGATCGAGAGCGG ATCGAGATATTCGCATCCGATGTTGGCGTGCTCTGCATGTGGTTTCGCGCTGTATAA ACTTGCTCTAGTGAACGGAGTTGGTTGGGTTGTTTGTGTGTACGGGATCCCGCTGT TGGTGATGAATGGATGGGTCGTTACGATCACTTACTTGCATCACACGCATATAGC GTTGCCGCGGTATGATTTCGTCGAATGGGATTGGTTGAGGGGTGCATTGGCGACT GTGGATAGGGACTATGGTGTTTTGAACAAGGTGTTTCATAACATCACGGATACTC ATGTGGCGCACCATCTGTTTTCGGCGATGCCTCATTACCATGCGGCGGAAGCGAC CGAGGCGATCAAGCCCGTTTTGGGCGAGTATTATCGGTGTGACCGGACTCCTATT ATCAAGGCGTTATGGAGGGAGTTTAAGCACTGTATTTATGTCGAGTCAGATGAGG ATAAAGGCGTGTTTTGGTTCAATGACAAGTTGTAA
<i>FAD2c-2</i>	ATGCCGCCGCCGCTTCATCATCCAACACAACCATGAAGCGATCGCCACACTCAA AGCCGCCGTTACCCCTCTCTGACATCAAGAAAGCCATACCACCGCACTGCTTCCA AAGGTCCCTCCTCCGATCATTTCCTACTTAGCCTACGACCTACCGCCGTCACAA TCCTCTACCACATCGCCACCACGTACTTCCACCTCCTCCCGACACCTCTCTCATCC TACGTGGCTTGGCCGGCCTACTGGGCCAGCCAAGGCTGCTTCTTCGTCGCTGTATG GATGGTGGCCCACGAGTGCGGTCAACCACGCCTTAGCGACCAACACTGGCTGGA AGACTCGGTAGGGTTCATCCTCCACTCGGCCCTCCTTCGCCTTACTTCTCGTGGA AGCACAGCCACCGCCGCCACCACGCCAACACTAGCTCCCTCGAGCGTGACGAGG TGTTTCGTCCCTAAGCTGAAATCCAAGCTGAGCTGGCACTTCAAGTTCTTCAATAAC CCGCCTGGCCGCGTCTGTCAGCTGGCCTTTGCTCTGCTTCTAGGATGGCCTCTCTA CCTTGCGGTCAACATCGCAGGAAGACCGTACGAGAAATTCGCTAGCCACTTCGAT CCGCGAAGCCCTATCTATAACGATCGGGAGCGAAATGAGATATTTGTATCTGATG TTGGCGTGCTTGCTATGTGGTTCGCTCTGTATAAACTTGCCCTGGCGAACGGAGTT GGTTGGGTTGTTTGTGTGTACGGGGTCCCTCTGTTGGTGATGAATGGATGGATCGT TACGATCACTTACTTGCATCACACGCATGTTCGATTGCCGCGGTATGATTCCTCGG AGTGGGATTGGTTGAGGGGTGCGCTCGCGACTGTAGATAGGGATTATGGGGTTTT GAACAAGGTGTTTCACAACATTACAGATACTCATGTGGCGCACCATCTGTTTTCG ACGATGCCTCATTACCATGCGGCGGAAGCAACCGAAGCGATCAAGCCCGTTTTGG GTGAGTATTATCGGTCTGACCGGACTCCTATCGTCAAGGCATTATGGAGGGAGAC TAAGCACTGTGTTTATGTCGAGGTTGATGAAAAAAAGGCGTGTTGTGGTTCAAT GATAAGATGTGA
<i>FAD2d-1</i>	ATGGTATCCAATACCACCATAAAGCGAACACCGACCTCAAAACCGCCGTTACCC CTCTCCGACGTCAAGAAAGCAATACCACCGCACTGCTTCCAAAGATCCCTCCTCA AATCCTTACCTACCTAGCCTACGATCTCACCGTCATCACAATCCTCTACCACATC GCCACGTCATACTTCCACCTCCTCCCCAACCTCTCTCCTACGTGGCGTGGCCGCT CTACTGGGCGCCAGGGGTCACACTTCATCGCCGTCTGGGTATCGCCACGAG TGCGGCCACCACGCCTTCAGCGACTACCAGTGGCTAGACGACGCCGTTGGGTTCCG TCCTCCACTCCCTCCTCTTAGCTCCTTACTTCTCCTGGAAGCACAGCCACCGCCGT CACCACGCCAACGCCGCTCCATCGAGCGCGACGAGAATTACATCCCGAAAAAG AAGGACGAAGTCAACTGGCATTTTAAATACCTCGACAACCCTCCCGGACACGTGT TCTATATATTCTTCACTCTCACCTCGGATGGCCGCTCTACTTGCTGGTCAACATCT CCGGCAGGAAATACGACGACGATTTCGCCAGCCATTTGTATCCTTTCTCCCCTATC TACAACGACCGCGAGAGATTTCGGGATAGTCCTCTCCGTCGCCGGGATGCTCGCCA CGTGTTTCGGTCTTTATAAACTCGCGATGGTCAACGGGTTTCGGTTGGGTTGTTTGC GTGTACGGGGTGCCTCTCATTCTCCAGAATGCGATGTTGATTACCATCACTTACTT GCACCACACGCATCTCAACTTGCCCCACTACGACTCGTCGGAGTGGGACTGGATG AGGGGTGCGCTCGCGACTGTGGATAGGGATTACGGAATTTGAATAAGGTGATGC ATAATATTACGGATACCCACGTGGCGCACCATCTGTTCTCGATGATTCCTCATTAT CATGCGATGGAGGCTACAAATGCGATAAAGCCGTTCTTGGGGAGTACTACCAA GTTGATACTACGCCGTTTTTTGAAGGCGTTGTGGAGAGAGACTAAGGATTGTGTTTA TGTTGAGGCGGATGATGAGGGATCTGATCGGGAGAAGAAAGGAGGGGTGTTTTG GTTCAAAACCAAGCTGTAA

<i>FAD2d-2</i>	ATGGTATCCAATACCACCCTAAAGCGAACACCGACCACAAAACCGCCGTTACCC CTCTCCGACCTCAAGAAAGCAATACCACCACACTGCTTCCAAAGATCCCTCCTCA AATCCTTCTCCTACCTAGCCTACGACCTACCGTCATCACAATCCTCTACCACATC GCCACGTCATACTTCCACCTCCTTCCCAAACCTCTCTCCTACGTGGCCTGGGTGGC CTATTGGGCCGCTCAGGGGTCCCACCTTCATCGCCGTGTGGGTCATCGCCACGAG TGCGGCCACCACGCCTTCAGCGACTACCAGTGGCTAGACGACGCCGTGCGCTTCC TTCTCCACTCCCTCCTCTTAGCTCCTTACTTCTCCTGGAAGCACAGCCACCGCCGC CACCACGCCAACGCCGCTCCATCGAACGTGACGAGAATTACATCCCGAGAAAG AAGGACGAAGTCAACTGGCATTTTAAGTACCTTGATAACCTCCCGGACACGTGT TCTATATATTCTTCACTCTCACCTCGGATGGCCGCTCTACTTGCTGGTCAACATCT CCGGGAGGAAATACGACGACGGATTCGCCAGCCATTTGTATCCTTTCTCCCGCAT CTACAACGATCGGGAGAGGTTGCGGGGTGTTCTCTCCGTCGCGGGGATGCTCGCC ACGTGGTTCGGACTTTATAAGCTCGCAATGGTCAACGGTCTCGGCTGGGTGTTTG CGTGTACGGGGTCCCTCTGATTCTCCAGAATGCGATGTTGATTACCATCACTTACT TGCACCACACGCATCTCAACCTGCCCCACTACGACTCGTCGGAGTGGGACTGGAT GCGGGGTGCGCTCGGACTGTGGATAGGGACTACGGGATTTTGAACAAGGTAAT GCATAATATTACGGATACTCACGTGGCACACCATCTGTTTTCGATGATTCCCTCATT ACCATGCGATGGAGGCTACGAATGCGATCAGGCCGTTCTGGGGGAGTACTACC AGGCCGATACGACGCCGTTTATTAAGGCGTTGTGGAGGGAGACTAAGGACTGTGT TTATGTTGAGGCGGATGATGAGGGCGGTGATCAGGAGAAGAAAGGAGGGGTGTT CTGGTTCAAAACCAAACCTGTGA
<i>FAD2e-1</i>	ATGTCCCCTATTTACAGCGACCGCGAGCGAGCCGAGGTATTCGCCTCAGATGTTG GCTTGCTCGCTGTCTGCTTCGCGTTGTACAACTTATTATGGTCAAGGGAATGGCG TGGGTTTTTTCGCTCTATGGGGCTCCGGTCATGGTGGTGAATGGATTCTTCATTACC ATCACTTACTTGCATCACACTCATCTCGCGGTCCCGCGATACGATTTCGTCTGAATG GGATTGGTTGAGGGGAGCCCTGGCAACCATGGACAGGGACTTTGGCCTTTTGAAC AAGGTGTTCCATAATGTTACAGATACTCACGTGACGCACCATCTGATTTTCGACGA TCCCTCATTATCATGCCATGGAAGCCAACAACGCAATTAGGCCCGTGTGGGGGA CTACTACCATATCGACAGGACGCCGTTGGTTAAGGCGTTGTGGAGGGAGGCTAA GGAGTGTGTTTACATCGAGGCCGATGATGGTGAAAAGAACAAGGCGTGTCTG GTTCAATACCAAGCTCTAA
<i>FAD2e-2</i> (exon- intron junctions are not given)	ATGCACTTTCCGATAGCTAACCTTTGTCTGATGCTAAAAACAGGCCATACATGGC GCCACAAAGCACTGCTCTAGTAAGTACACATGATTGGGATTACACTACACTTGAG TAATTAATCAGTCCATATTTTACCTGGATCCAAAGTTGAAAATAACTCGAAAA CAAATTTGTGCAAAATTGAGCATCAAATGAGACAATATTAACTATTTTCGAGTTTT GTTGGCGCTGTTCTCGAGTTGTATTAGCCTCTCCGAAAACATGTATAAAAAGCACT CGACCTATTCATATTATACAACATCAAAATCCCACCAATCAATCAAAAAACAGA GAGACACATCTAAAAGCCCCCCCCCCCCCCCCCTTACAAAATGGTGGAGC GACGTTTCATCCAACAAGGCGGCGGCGGCGGAAACCGAAACCGCCGTCGTCAAAC GGTCCCGTCCTCAAAGCCGCGGTTACACTCGCCGACCTCAAGAAGGCCATTCC GCCGCACTGTTTCAAAGATCCATCCCACGCTCCTTCTCCTACTTGGTTTTCGACCT CATCGTCGCCGCGCTCTTCTACCACATCGCCGCCACTTATTTCCCCCTCATCCCCA AACCTCTCTCCTACGTGGCGTGGCCGGCCTACTGGTTCGTCCAGGGCAGCGTCCTG ACCGGTGTGTGGGTCATCGGCCACGAGTGCGGGCCACCACGCATTTAGCGAGCACC AGTGGCTCGACGACCTGGTTCGGGTTTCATCCTCCACTCGGCCCTCCTCACCCCTTAC TTCTCGTGGAAGATCAGCCACCGCCGCCACCACGCCAACACCTGCTCCCTCGAGC GCGACGAGGTATATACTGTTGGGAACCGGACAAGAAGCAATATTAGGGTTTATC GATCTGGCTGAGTATACATGGACAACTATCCATCAACATCCAAGATAAAAAACA GAGCTATAACTTTCAACTTCCGTGTGCAAAAATAGGGAGATGAATAAAATTCAG ATAATTTAAACAAATAAATTATCTCCAAAATGAATAATATTGGTCTCAAGTCCAA TCCAACCTGGAGAACTGGATCTTTTTACAAAGACGTTTTTGATTAGTCTTTTTTTC TTTCTCCGATGTGATATTTGAGACTTAATTATTCACATTTTTCAACAGGTGTACATT CCGAGGAAGAAGTCTCAGTTGCGGTGGTGGTACTCGAGCTACCTGAACAACCCGC

	<p>CCGGCAGACTTTTGGCGCTGGCTTACACCATCCTACTCGGCTGGCCTTCCTACTTG ACTTTCAACCTATCCGGAAGGGAATACAACGGTTTGGCCTGTCATTTCTACCCGAT GTCCCCTATTTACAGCGACCGGGAGCGGGCCGAGGTATTCGCCTCCGATGTTGGC TTGCTTGCTGTGTGCTTCGCGCTGTACAACTTATCCTCGTCAAGGGAATGGCGTG GGTCTTTTGGCTCTACGGGGCTCCGGTCATGGTGGTGAACGGATTCTTCATAACCA TCACGTA CTTGCAACCACACTCATCTTGCGGTCCCGCGGTACAATTCCTCGGAATGG GATTGGTTGAGGGGAGCCCTAGCAACGATGGATAGAGACTTTGGGTATTGAACA GGGTGTTCCATAACGTTACAGATACTCATGTGACGCATCATCTGATCTCGACCATC CCTCACTACCATGCCATGGAAGCCAACAACGCGATTAGGCCCGTGTTGGGGGACT ACTACCACATCGACAGGACGCCTGTTGTTAAGGCGTTGTGGAGGGAGGCTAAGC AGTGTGTTTACATCGAGGCGGACGAAGGTGAAAATAACAACGGCGTGTTCTGGTT CAATACCAAGCTCTAA</p>
<i>FAD2f-1</i>	<p>ATGGTGTCTCCGGCAAAACCATGAGCAACAAAACCACCACGAAGCGGCCGCCG GTGTCAAAACCGCCGTTCACTCTGGCCGACATCAAGAGAGCCGTACCGCCACACT GCTTCAAAAGATCCCTCGTCAAATCATTGCCTACCTAGCCTACGACCTCACCGTC ATCACAATCCTCTACCACATCGCCAACACATACTTCCACCTCCTCCCCAAACCTCT CTCCTACGTGGCGTGGCCCGTCTATTGGGCTGCCCAATGCTGCTTTTTTCGTGCTTT ATGGATGGTGGGCCACGACTGCGGCCATCATTATTAGCGACTATCAGTGGGTG GACGACACCGTTGGATTTCGTGCTCCACTCGTTCTCCTCGCCCCTTACTTCTCGTGG AAGCATAGCCACCGCCGCCACCACGCCAACTCCGGATCTCTAGAACGCGACGAG TCGTTCTGTCGCCGAAAACCAAAGACAATATCACCTGGCACTTCAAGTACCTCGACC ACCTACCGGGGCGGATCTTCTACGTGGTCTTCACTCTAACCCTCGGATGGCCGCTC TACTTGATGTTCAACATCACCGGAAGGCCGTACAAGGACGGATTCGCCAGTCATT TCTACCCCATGTGCGCTATCTACGAGGATCACGAGCGGTTCCGAATATTCTCTCT GATGTTGGCATGCTCGCTATGTGGTTCACACTCTACAAGCTTTCCTGCGGTATGG AGTCGGTTGGGTCTTTGTGTGATTTTATTCCGCTGGTTTTACAAAATGCGTTGTTT GTCACGATCACTTACTTACACCACACGCATCTGAACTTGCCTCACTATGACTCTTC GGGTGGGACTGGATGAGGGGGTTCGTTGACGACTGTGGATAGGGACTATGGGTTT TTGAACAAGGTGTTGCATAACGTGACAGATACTCACGTGGCGCACCATCTGTTCA CCCATATGCCTCATTACCACCAATCGGAAGCGACCAAGGCGTTCATTCCGGTTTTG GGGAATACTACCAGGTTGATCCGACTCCGTCTACAAGGCGTTGTGGAGGGAGA TGAAGCACTGTGTTTATATCGAGCAAGATGAGGATGCGGATTCTGATAATAACAA AAAAGGCGTGTA CTGGTACAAAACCAAGCTCTAA</p>
<i>FAD2f-2</i>	<p>ATGGTATCCTCCGACAGAACCACGAACAACAAAACCACCACGAAGCGGCCGCCG CTGTCAAAACCGCCGTTCACTCTGCGGACATCAAGAGAGCCGTACCGCCGCACT GCTTCTAGATCCCTCGTCAAATCATTGCCTACCTAGCCTACGACCTCACCGCATC ACCTTCCTCTACCACATCGCCAACACATACTTCCATCTCCTCCTCAAACCTCTCTC CTACGTGGCGTGGCCCTCTACTGGGCCGCTCAATGTTGCTTCTTCGTGCTTTATG GATGGTGGGTACGATTGTGGCCACCATTCGTTACGCGACTATCAATGGATTGAC GACACTGTGCGTTTCATCATCCACTCGTTCTCCTTGCTCCTTATTTCTCCTGGAAG CACAGCCACCGCCGCCATCATGCCAACTCCGGATCTCTAGAACGCGACGAGTCGT TCGTCCCGAAAACCAAAGACAATATCGCCTGGCACTTCAAGTACCTCGACCACCT ACCGGGGCGGATCTTCTACGTCGTTTTCACTCTGACCCTCGGGTGGCCACTATACT TGATGTTCAACATCACTGGAAGGCCGTACAAGGATGGATTTCGCCAGCCATTCTA CCCCATGTCGCCGATCTATGAGGATCACGAGCGGTTCCGGATATTCTCTCCGAC GTTGGAATGCTCGCCATGTGGTTCACGCTCTACAAGCTCTCAGTGGCGTATGGAGT CGGTTGGGTCTTTGTGTGATTTTATTCCGTTGGTTTTACAAAATGCTTTGTTTGT ACGATCACTTACTTGCACCACACGCATTTGAACTTACCTCACTATGATTCTTCGGG GTGGGACTGGATGAGCGGGTCGCTGACGACTGTGGATAGAGACTATGGGTTTTTG AACAAGGTGTTGTATAACGTGACAGATACTCATGTGGCGCACCATTGTTACACAC ATATGCCTCTTACCATCAATCGGAAGCGACCAAGGCGTTCATTCCGGTTCTGGGG GAGTACTACCAGGCTGATCCGACATCGTTCTACAAGGCGTTGTGGAGGGAGATGA</p>

	AGCATTGTGTTTATGTCGAGCAGGATGAGGATGCGGATTCCGATCAGAACAAAAG AGGAGTGTACTGGTACAAAACCAAGCTGTGA
<i>FAD2g-1</i>	ATGAACAACAGAACCACCACGAAGCTGCTGCCGCTGTCAAAACCGCCGTTCACT CTGGCCGACATCAAGAGAGCCGTACCGCCACACTGTTTCAAAAGATCCCTCGTCA AATCATTGCGCTACCTAGCCTACGACATCACCGTCATCACAATCCTCTACCACATC GCCAACACATACTTCTACCTCCTCCCCAAACCTCTCTCCTACGTGGCGTGGCCCGT CTATTGGGCGCCCAAAGCTGCTTCTTCGTCGCTGTATGGATGGTGGGTACAGATT GCGGCCACCATTCAATTCAGCGACTACCAGTGGGTGGACGACACTGTGCGATTCTGT CGTCCATTCTGTTCTCCTCCTACCCCTTACTTCTCGTGGAAGCACACCCACCGCAGCC ACCACGCCAACAACGGATCTCTAGAACGCGACGAATCTTTCGTCCCCAAGACCA AAGACGAAGTCAGGTGGCACTTCAAGTACCTCGACCACCTACCGGGGCGAATCTT CTACGTGTTCTTTACTCTAACCCTAGGATGGCCTCTCTACTTGATGTTCAACATCAC CGGAAGGCCGTACAAGGATGGATTGCTAGCCATTTCTACCCCATGTGCGCTATG TACGAGGACCATGAGCGGTTTGGAGTAGTCCTGTCCGACATGGGAATGCTCGCTA TGTGGTTTACGCTCTACAAGCTCTCGGTGGCGTTTCGGAGTCACTTGGGTTCTCTGT GTGTACTTTATTCCACTAGTTTTACAAAACGCGTTGTTTGTACGATCACTTACTTG CACCACACGCATCCAAACGTGCCTCGTTATGACTCTTCGGGGTGGGGTGGATGA GGGGGTGTTGGTGACCGTGGATAGAGACTATGGGTTTTTGAATAAAGTGTTCCA TAACGTGACGGATACTCACGTGGCGCACCATCTGTTACGCATATGCCTCATTACC ACCAATTGGAAGCTACCAAGGCGTTCATCCCGATTTTGGGAGAGTACTACCAGGC TGATCCAACACCGTTCTATAAAGCATTGTGGAGAGAAATGAAGCACTGTGTTTAT GTCGAACAAGACAAAAGATGCAAATGTCGATCAGAACAAAAGAGGTGTGTATTGG TACAAAACAAAGTCGTGA
<i>FAD2g-2</i>	ATGGTATCCTCCGACAAAACCATGAACAACAAAACCACCACGAAGCTGCTGCCG CTGTCAAAACCGCCGTTCACTCTCGCCGACATCAAGAGAGCCGTACCGCCACACT GCTTCAAAAGATCCCTCGTCAAATCATTGCGCTACCTAGCCTACGACATCACAGT CATCACAATCCTCTACCACATCGCCAACACATACTTCCACCTCCTCCCCAAACCTC TCTCCTACGTGGTGTGGCCCCCTCTACTGGGCTGCCAATGTTGCTTCTTCGTCGCGG TATGGATGGTGGCCCATGACTGTGGCCACCATTCAATCAGCGACTATCAATGGGT CGACGACACCGTCGGTTTCATCATCCACTCGTTCCTCCTCGCCCCTTACTTCTCATG GAAGCACACCCACCGCAGCCACCACGCCAACAATGGATCTCTAGAACGCGACGA GTCTTTCGTCCCCAAGACCAAGACGAAATCAGGTGGCACTTCAAGTACCTCGAC CACCTACCGGGGAGAATCTTTTACGTGTTCTTCACTCTAACCCTAGGATGGCCTCT CTATTTGATGTTCAACATCACCGGAAGGCCGTACAAGGACGGATTGCGCCAGCCAT TTCTACCCCATGTGCGCTATGTACGAGGACCACGAGCGGTTTCGGAGTAGTCCTCTC TGACATGGGAATGCTCGCCATGTGGTTCACGCTCTACAAGCTCTCAATGGCGTAC GGAGTCAGTTGGGTTCTCTGTGTGTACTTTATTCCACTGGTTTTACAAAATGCGTTG TTTGTACGATCACTTACTTGCACCACACGCATCCGAACCTGCCTCGTTATGACTC TTCGGGGTGGGGTTGGATGAGGGGGTCGTTGGTAACTGTGGATAGAGACTATGGG TTTTTGAACAAAGTGTTGCATAACGTGACAGATACTCACGTGGCGCACCATCTGTT CACGCATATGCCTCATTACCACCAATTGGAAGCTACCAAGGCGTTCATTCCGGTTT TGGGGGAGTACTACCAAGCTGATGCAACGCCGTTCTACAAGGCATTGTGGAGGG AGATGAAACACTGTGTTTATGTTGAGCAAGATGAGGATGCAGATTCCGACCAAA ACAAAAGAGGTGTGTA
<i>FAD2h</i>	ATGGTATCCAACAAAACCATAAACCAGGCCGCGTCTCAAAACCGCCGTTCACTC TCTCCGACATCAAGAAAGCAATCCACACACTGCTTCCGCAAATCCCTCCTCCG ATCATTCTCCTACGTAGCCTACGACCTCGCCGTATCGCAATCCTCTACCACATCG CCACGTCATACTTCCACCTCCTCCCCAAACCTCTCTCCTACGTGGCCTGGCCGGCA TACTGGGCCGCCAGGGATCCCACTTCATCGCCGTCTGGGTCTGGCCACGAGT GCGGCCACCACGCCTTCAGCGACTACCAGTGGCTAGACGACGTCGTGCGATTCTGT CCTCCACTCCGCTCTCCTCTCGCCGTACTTCTCGTGGAACACAGCCACCGCCGCC ACCACTCCAACCTCGGCATCTCTAGAACGCGACGAGCTGTACATCCCGAAGAAGA AATCGGAGATTAGCTGGCATTACAAGTACCTCGACAACCCGCGGGTCATCTTTT

	CTACTTGGTGTTCACTCTCACTCTCGGATGGCCTCTCTACGTGATGTTCAACGTCTC CGGCAGGGAATACGACGACGGATTTCGCTAGCCATCTGTATCCTTTCTCCCCGATCT ACAACGAACGGGAGAGATTTCGGGATACTTTTGTTCGGACGCTGGGATGCTTGCCAC TTGGTTTGGTCTGTACAAGCTGTCCATGGTCAACGGACTGAGTTGGGTTGTTTGTG TGTACGGGGTCCCGCTATTGGTGATGAATGGATTGCTTGTGACGATCACTTACTTG CATCACACCCATCTTTTCGCTCCCGCATTATGACTCGTCGGAGTGGGAGTGGATGA GAGGTGCGCTAGCGACTGTGGATAGAGACTACGGGTTCCTCGCTGAATAAGGTGAT GCATCATATTACGGATACTCACGTGGTGCACCATTTGTTCTCGATGATTCTCATT ACCATGCGACGGAGGCTACAAATGCGATTAGGCCGATTTTGGGTGAATATTATCA AGTTGATCCGACTCCGTTTGTCAAGGCGTTGTGGAGGGAGATGACGCACTGTGTTT ACGTTGAGGCCGATGAGAAGAAACGAGGTGTGTTCTGGTATAAAACCAAGCTAT GA
<i>FAD3a</i>	ATGAGCCCTCCAACTCAATGAGTCCCGCCACCAACGGCAGCACCAATGGTGTG GCTATCAATGGGGCGAAGAAGCTACTCGATTTCGACCCGAGTGCTGCTCCCCCTT TCAAGATTGCAGACATCCGTGCTGCAATCCCGCCGCATTGTTGGGTGAAGAACCC CTGGAGGTCACTCAGCTACGTCTGAGAGACCTCCTGGTCATCCTCAGCTTCGCCC TTGCGGCGACAAAGCTGGACAGCTGGACTGTCTGGCCTCTCTACTGGATTGCTCA AGGAACCATGTTCTGGGCAGTCTTTGTTCTTGGACATGATTGGTAATTTACATGA TCTTTCTGGTAATGTGGGTTTTCTTTCTTATTGAAAAAGATTAAACTTTTTATCTG GGCTGTTGCATGCAGTGGCCATGGGAGCTTCTCAGACAGTTGGTTGTTGAACAAC GTGATGGGACATATACTCCATTCTCAATCCTCGTACCTTACCATGGATGGTATTG TAATAATTGTTTCGATATTTCGATTATGATTACTGTTCTTTCAGATGAAGAATCTGTAC CCTAATTGTTTTTGTACCAGGAGAATTAGCCACAAGACCCATCACCAGAAATCA CGGCAATGTGGAGAAAGATGAATCCTGGGTTCAGTAAGTTGACATGCAGTTTGC TCTAAAATGCAGAGTCCTCTGTTTTTGTGTGTTCTTGTGCTTTAATGACGATGATA ATGAAATTGAAATTTGTAATAGCTGCCGGAGAAGGTGTACAAGAGCTTGGATACC GGCACCAAGTTCATGAGGTTACCATCCCTCTCCCAATGTTTGCATCCTATCTA CTTGGTAAGTAAACAGACTGACTCCAAAGTAGGAATAATGACAATTTTGGACCC GACCTGGTTTGGTTGACTCGGGTCGATATGTTTCGGGTGGGTAATTACCCGATCTG GCGATGGGTGTGCGGCGGACATTGTCTTGCTCGTGGTCCACCCCGCTCCCAACCC GCCCCATTCTTGACGAAAAAGATTTCCGAATATGTATCAACAGAAAAATCTAGTT TTTATGTTACTAGTTTTCTGTATTTCCATGTTTTTCTCAATTCTAGCCGGAATTG AATTCAAACTGAAATCGGGTAATTCCTGCCATAACAAAACGGAATTGGGCAGCC GTAATTAGTTGAACTAGACCTCAATTTTGGCGGAATTGGACCCGGCCATTTTTTA CGTTTGCAAAACGGAAAACGTTTTTCTTTGTAAAGCGCAAAATGAAAAACGTAT CTAGTGGAATTATTGGACCCATCTAGAATGGGTCCAATTCCACCCCAATTCGGCT CCAATTCATGCCCGGAAAACACTACTGTCATGCATTTTAATCTTGTATGGTTTTAC CCCAATGGATGCAGCGATGGATCCGGACGATTTTTAAAATATTATCGGGTTAAAT TTAAAAATATCTTAAACTATAAGAAAAAAATAACCAATTTTAAAGAATAAAAG AACTGGACACATATGACGGGTGTCGTGGATGGATGTACTTGTCCCGCTCTATTAA AGGCTGATAATATACAGGTCAACGGTGAATGAAGGTTAGATGCGCTATTGGATTT GAATCCGATATGAAATGATAATTTTGGACACGATCTGTTTTGGGTGGGTAATATT GATCTAGGGATGGCTCGTGTCCAAACCGCACCAAAACCGCCTAATTCTCGACCA AAAAGATTTTATGAATACATATCAACAGAAAAATCTAGTTTTCATGTTACTAGTTT TATGTACAACAATATTAGGTGTCGTTTTCCAGCCTTTTTCTTCAATTCCGGCCGGA ATTTCGATTCAAACCGGAATTGGATGGAATCGGTATACCTCGTCACGGATGCATT GTCAATTCCTAGTTAGTTTCATGTTTTGAAACCAATCAATCTATTCTATATGGTTT TGATTAACAGTGGAGGAGAAGTCCGGGGAAGAAAGGGTCGCATTTCAACCCATA CAGTGACCTGTTTCGCACCGAACGAGAGGACATCGGTTCATGATTTTCGACATTGTGC TGGACAGCCATGGCCTTACTCCTCTGCTACTCATCGTTCATCTACGGCTTCCTTCCG GTCTTCAAAATCTACGGCGTCCCTTATCTAATATTCGTGGCGTGGCTCGACATGGT GACCTACCTTCACCACCACGGGTACGAGCAGAAGCTGCCGTGGTACAGAGGCAA AGAGTGGAGCTACCTACGTGGAGGGCTGACGACCGTCGATCGAGATTACGGGGT

	<p> CATCAACAACATCCACCATGACATTGGCACCCATGTTATTCACCATCTCTTCCCTC AAATGCCACACTATCACCTAGTCGAAGCGGTAAGGAGGTCTTGATTATTAACCTTA ATGTTTTTGTGTATAATTTGAGTCCGATTCTGGAGTCAGGGGATTTCTTCTTG ATCCGATCCAGGATCAAGCTGGTCCCTTGAATTTCTATATGATCTTATATTAATTA AGGATAATGTGGTCATATGTTTTTAAATATTTTGTTTACCATCATTTTCGATCACC GAAAAATGTCCTGAGCAGTTTTCCGGTCACTTTAACCTCCATTGACAAATTTTTTC ACCCACATGATCACCTAGCCGGGTTACGTTTATTGAAAATTTTTATTTTTTTGAA TTTTTTTTCGATGACCAACTGTACAACCTTGTATTGAAAGTTGTATGGATCATACA AATGTGTATGTACAAAAGTATATTCTAAGTACTATACTAAGCATTACTTAGTATTA CGTTTCTACAAACCTATAGAGAAATGCATACAATTTTGTATAGAAGTTAGTATAC ACGTAGCTGTGAAATGTCAATTTCCCTCCGTATTTTCAGAGACAAGACATGATTTT TAGACTGGCAGATTTTTTTTTATCGGATAGATTTCTCCAACCTTCAGATTTCGGACTGG ATTATTAAGTATATTATTCATCAACTCTGACGTTTGATGTTGCATGTGACAGACTC AGGCAGCGAAGCACGTGCTGGGGAAGTACTACAGAGAACCGAAGAAATCAGGG CCTTTCCCATTCCACTTGTGTTGGGTACTTGTTGAGGAGCCTGGGCGAGGATCACTA CGTTAGCGATACAGGCGACGTCGTTTTCTATCAATCTGACCCACATATTCCCAAGT TCCCTACCAGTGCCACCACCAAGTCCAAATCTAGCTGA </p>
<i>FAD3b</i>	<p> ATGAGCCCTCCAAACTCAATGAGTCCCACCACCAACGGCAATGGTGTGGCTATGA ATGGGGCGAAGAAGCAGCTCGATTTCGACCCGAGTGCTGCCCCCCTTTCAAGAT TGCAGACATCCGTGCTGCAATTCGCGCGCATTGCTGGGTGAAGAACCCCTGGAGG TCGCTCAGCTACGTCCTGAGAGACCTCCTTGTATCCTCAGCTTCGCCGTTGCGGC GGCGAAGCTGGACAGCTGGACTTTCTGGCCTCTTTACTGGGTTGCTCAAGGAACC ATGTTCTGGGCAGTCTTTGTTCTTGACATGATTGGTAAACTAATTTACATTTTCT TTCTGGTAATGTGGGTTTTATTGAAAAAGATTCAAACTTTTATCTGGGTGTTGCA TGCAGTGGCCATGGGAGCTTCTCAGACAGCTGGTTGTTGAACAATGTGATGGGAC ATATACTCCATTCTCAATCCTCGTACCTTACCATGGATGGTATTGTAAGTATTGTT CAATATTAGATTATTGCTAGTTCTTCAGCTGAAGAATCCAAACCCTAATTTTCTTTT TCTGAATATTGACCAGGAGAATTAGCCACAAGACCCATCACCAGAATCACGGCA ATGTGGAGAAAGATGAATCCTGGGTTCTGTAAAGTTGACATGCAGTTTGCTGTAA AAATGCAGAGTGCTCTGTTTTTTGTGTTCTTGTGCTTTAATGGTGATAATAATGAA ATTGTTGAAATGTAACAGCTACCGGAGAAAGTGTACAAGAGCTTGATACACAGC ACTAAGTTCATGAGGTTACCATTCCTCTCCCAATGTTTGCTTATCCTATCTACTTG GTAAGTAAAGAGACTGATAAGACTCCAAAGTAGGAATTAATGACAATTTTGGAC CCGAGCTTCCGACTCGGGTCGATTTATTTCCGGTGGGTACTTACCCGATGCGGCGG ACATTGTTTTGCTCGTGGTCCACCTCGCTCCCAACCCGCCCATTTCTTGACGAAAA AGATTACGGAATATGTATCAACAGAAATATCTAGTTTTTATGTTACTAGTTTTCTGT ATTTCCGTGTTTTTCCCCTCAATTCCGTCAGAAATTTGAATTCAAACCTGACATTGGG TAATTCGTGTCATAAGAGAACGGAATTGGGAAGCCGTAATTAGTTGGAATTAGAC CTCGATTTGCGCGGAATTGGACCCGGCCATTTTTGCGCTCCGGAAGCGTTTCCA GTGGAGTTAGACGCCCCTAGAAATGGGTCCAATTCCACCCCAATTTTCGGGGCTA CCTATTTTTAGTGACATGCATTTTAGATCTTTTACGGTCTTACCCGATGGATATT CTTGTGCGCTCTATTAATAAACTGACAATATACAGGTTGATTGTGAATGAAGATT AGGTGCTGCACGCTCTTCGTGTTCCAACCCGCACCCAAACCGCCCCATTCTCGAC CGAAAAGATTTTATGAATACATATCTACAGAAAAATCTAGTTGTGTCATGTCACTAG TTTAATGTACAACAGTATAGGTGTCGTTTTCCGCGTCTTTTCTTCAATTCCGGCTG GAATTTCGATTCAAACAGGAATTGGATGGAATTGGTCCCGGATGCATAGTCATTT CCCAGGCAGTTTCATGGTTTTATAACCAATCAATCTAATCTTATGCTTTTGATAAA CAGTGGACGAGAAGTCCGGGGAAGAAAGGGTCCGATTTCAACCCATACAGCGAC CTATTTCGCACCAAACGAGAGGGCAGCGGTCTTGATTCAACATTGTGCTGGACAG CCATGGCCTTACTCCTCTGCTACTCATCGTTTCATATACGGCTTCGCTCCGGTCTCA AAATCTACGGCGTACCTTATCTGATATTCGTGGCATGGCTCGACATGGTGACCTAC CTTCATCACCACGGGTACGAGCAGAAGCTGCCGTGGTACAGAGGCAAAGAATGG </p>

	AGCTACCTACGTGGAGGGCTGACGACCGTTGATCGAGATTACGGGGTCATCAACA ACATCCACCATGACATTGGCACCCATGTCATTACCATTCTCTCCCTCAAATGCCA CACTATCACCTTGTGGAAGCGGTAAACAATTTGATTATTAATTTACTGTTTTTGTG TTATAATTTGAGTCGGGAGATTTCCCTCCTAAATCCGATCCCTGGTCAATCTTGGC CCTTGAATCTTCATATAATCTAAAAATCTAGATTAATCAGGAACAATATGATCAT GTTGTTTAACTAATTTTGTGGACCATAACCTACCGCCAACTGATGGACCACCGT CTCTGGTTACCGGACCCATCATTTCCGGTTACCAAGAAGTTTCTCGATCAGTTTTC CGGTTACTTTGACCTGCGTTGAGGAAAAATCTTTCACCCACGTAAACACTGTCGTC AACTTTACGTTTCTGGAAGTTTTTCCGATGATTGGCCGTACAATTTTGTACGAAG AGTTGTACGGATCATATAAATGTGTATAAGTTTCTAGAAATCCGTACTGAAATAT ATACATATTTGACTTTTGTATAAAGTGTAATACTAAATACTATACTAAGTGCTGTA CTCAGTATGATACTTAGTACACACATTTGTATGACTATGAAATGTCAATTTTGGCC TTATATTCTCAGCCGTTAGATCTAAGACACAGTTTTTATACGGCTGAAATTTGTGG GGGCTTTGTAGATCGGATCCATAAGTCATTTCTTGGCTCAAGATTCGGACTCGATT ATTA ACTATATTATTCATCAACTCTGACGTTTGATGTTGCATGTGACAGACTCAGG CAGCGAAGCACGTGCTGGGGAAGTACTACAGAGAGCCGAAGAAATCAGGGCCTT TCCCATTCCACTTGTTTGGGTACTTGGTAAGGAGCCTGGGCGAGGATCACTACGTT AGCGACACAGGCGACGTCGTTTTCTATCAGTCTGACCCACATATTCCCAAGTTCCG TACCAGCAGTGCCACCACCAAGTCCAAATCCAGCTGA
FAD3c-1	ATGAGCCCTCCAACTCCATGGGAATGGAAGCTGCTCATCCTACCGGCAACGGC AATGGCGTCGCAGTCATGAACGGCGCCTCCGCTAACAAACCCGATTTTCGATCCCA GCGAGGCTCCTCCCTTCAAGATTGCCGACATCCGAGCCGCCATCCCCCGCATTG CTGGGTGAAGAATCCATGGAGGTCTCTTAGCTACGTCCTTAGGGACGCCGTCGTC ATTCTCGCATTTCGCAGCTGCCGCCCTCAAGCTCGACCTCTGGGCTGTTTGGCCGCT CTACTGGATCGCTCAGGGCACCATGTTTTGGGCTGTCTTCGTTCTCGGCCACGATT GGTAAGAGGAGGAGGTTTTTTTTTAAAATTTCAATCCGATGCTGTTTTGTTATATTA TTGGTTGATATGATATATAAGATTAACCCTAGAGAAAAGTGAAAAGCATCCGCCA TTGTTGAATGAATTGGAATTGGATGGTGACGCGGCCATGGGAGTTTCTCGGATAG CTGGTGGCTGAACAATGTGGTGGGGCATATTCTGCATTCTGCAATCCTTGTGCCTT ACCATGGATGGTAAGAAAAGAATATGAACAGATCCTTTATCCTTACAACGTGAAA ATGTAGGTCATTACAGCTGAACTAAAGTCACATTCTGTGTTGTTAATTGATTGAAC AGGAGAATTAGCCACAAAACACACCACCAGAATCATGGCAATGTTGAGAAAGAT GAATCATGGGTTCGGTGAGTTTTATTTCATTTTTCTCTCGTCAATTGGCATCAGT TTGTTCTGTTTCAATGCTTGATATGAATTGGGTGATATAATGCAGCTGCCGGAGAA AGTATACAAGACCCTGGACACAAGCACCAAAATTCATGAGGTTCACTATCCCTCTC CCAATGTTTGCTTATCCTATCTACTTGGTAAGAACCACCCACATTCTTACATCCTT GCATGTTGTGATTGTTTTCTGGTTGGATTGGATTGAGTTTGGGGAATTGATTGT GTGCCTTTGAAATGAATGAATGGTTACAGTGGACGAGGAGCCCAGGGAAGAAAG GGTCCCATTTC AACCCCTACAGTGACCTGTTTGCCCCACAAGAAAGGAAATCAGT CTTAATCTCTACCATCTCTTGGATTTCATGGTCCTAATCCTCCTCTACGCCTCCTT CCTTTTGGTTTTCTCACTGTCTTCAAAGTCTATACCGTCCCTTACCTGGTAAAACT ACTATCTCCAAATTCAACAATCTGTAAGCTTCATTTCAATTTGCTTTGGCTCCTGAGT TCCCTGTCAAGTTTCTCCTAGCAGTGTAACCTGTTATTTGATAACTTTGTGCCATCT CACTATTGGCTGCATTTTACTATAATCAAACCTGCTACATACGTTATTGCAACTTGTT AATCCTTGGTACGAGGAATCCAATGAATAGGATGGTGATTAGCACAAACAAGGC TGAAACTTTGAGCAATTTTGCA GATATTTGTGGCGTGGCTGGACATGGTGACATAC CTGCACCACCACGGGCACGAAGAGAAGCTGCCGTGGTACAGAGGTCAAGAGTGG AGCTACCTACGTGGAGGGCTGACAACCGTAGATAGAGATTACGGGATTATCAAC AACATCCACCACGACATTGGC ACTCACGTGATTACCATCTGTTCCCTCAAATCCC TCACTACCATCTCGTAGAAGCGGTACAGTAGTAGTAAACAAAACCCCATATTATT ATTACTTACTGCAGTGATTTCTGACTCTATATTATTAATATCACTTCTGGGTTTTT GGCCGCGGGGGGGGGGGGGGGGGGGTGTGGATCTTTCGAACTTATAATAATA TGATATTATTATTA AAAATGGTGGCAGACAAAGGCAGCAAAGTCGGTGCTTGGGAA

	GTACTACAGAGAGCCAAAGAAATCAGGACCATTCCCATTCCACTTGTTTCGACAAC TTAGTGAGAAGCCTTGGCGAAGATCACTATGTTAGTGATGCAGGGGATGTCGTGT TCTATCAGTCTGACCCAGAAATCTTCAAGTTTTCCAAGTCCAAGTCAGCCTAA
<i>FAD3c-2</i>	ATGGGAATGGAAGCTGCTCATCCTACCGGCAACGGCAATGGCGTCGCCGTCATGA ATGGCTCCGCCGCTAACAAACCCGATTTCGATCCCAGCGAGGCTCCTCCGTTCAA GATTGCCGACATCCGAGCCGCCATCCCTCCGCATTGCTGGGTGAAGAATCCATGG AGGTCACTCAGTTACGTCCTTAGGGATGCCGTTGTCATTCTCGCATTCCGCCGTGC CGCACTCAAGCTCGACCTCTGGGCTGTTTGGCCGCTCTACTGGATCGCTCAGGGC ACCATGTTTTGGGCTGTCTTCGTTCTCGGCCACGATTGGTAAGAGGAGGAGTTGTT TTTTTTAAATATTTATCCGATGCTGTTTTGTTATATTATTGGTTGATATGTAAGATTA ACCCTAGAAAAAAGTGGAACCGTCCGCCATTGTTGAATTGAATTGGAATTGGAT GGTGCAACGCCCATGGGAGTTTCTCGGATAGCTGGTTGCTGAACAATGTGGTGGG GCATATCCTGCATTCTGCAATCCTTGTACCTTACCATGGATGGTAAGAAAAGAAT ATGAACAGATCCTTTATCCTTGAAACGGTAAAAATGTAGGTTATTCAGCTGAAACA AAAGTGACATCCTGTGTTGTTCTTTATTGATTGAACAAGGAGAATTAGTCACAAAA CTCATCACCAGAATCATGGCAATGTTGAGAAAGATGAATCATGGGTTCCCGTGGG TTTTATTCTCTTCTTACTTGTCAATTTGCCATCATTGTCTGTTTCACTGATTGAC ATGAATTGGGTGGGAAAATGCAGCTGCCAGAGAAAGTGTACAAGACTCTGGACA CAAGCACAAAATTCATGAGGTTCACTATCCCTCTCCCAATGTTTGCTTATCCTATC TACTTGGTAAGAACCACCCTACATTCTCACATCCTTGCATGTTGTGTATTGGTTTCT GGTTGGATTGGATTCAGATTGGGAAATTGATTGTGTGCATATGAAATGAATGA ATGGTTACAGTGGACAAGAAGCCCAGGGAAGAAAGGGTCCCATTTCATCCCTA CAGTGACCTGTTTGCCCCACAGGAAAGGAAATCAGTCTTAATCTCTACCATCTCT GGATTCCATGGTCCTAATCCTCCTCTACGCCCTCCTTCTATTGGCTTCCTCACAG TCTTCAAAGTCTATACCGTCCCTTACCTGGTAAAACTCCACCCTTGGTTTACTAG CTTCAAATTCAACAATCTATCAGCTTCATTTCAATTTGCTTTGGCTCCTAAGTCCCT CTTAAGTTTCTCGTAGCAGAGTAACTTGTCTATTTGTTAACTTTGTGCCATCTCCCT ATTGGGTGCATTTCACTATAATCAAACCTGCTACATGCATACTGGAATGTCCATATT GTAATTTGCTATAATCCTTGGTACGAGAATCCAATGAATAGGATGGTGATTAGAA CAAGAAAGACTGAACTTTGAGCAAATTTGCAAGATATTTGTGGCGTGGCTGGAC ATGGTGACATACCTGCACCACCACGGGCACGAAGAGAAGCTGCCGTGGTACAGA GGCAAAGAGTGGAGCTACCTACGTGGAGGGCTGACAACCGTAGATAGAGATTAC GGGATTATCAACAACATCCACCACGACATTGGCACTCACGTGATTACACCACCTCT TCCCTCAAATCCCTCACTACCATCTCGTAGAAGCGGTACTGTAGTAAACAAAACC CATATTATTACTTACTGCAGTGATTCTGACTATGTTATTATTAATATCAGTT CTGGGTTTTGGCCTTTGGGGGGGTTGGTTTGGATCTTTGGCACTTATAATATTATTA AAATGGTGGCAGACAAAGGCAGCAAAGTCGGTGCTTGGGAAGTACTACAGAGA GCCAAAGAAATCAGGGCCATTCCCATTCACCTTGTTCGACAACCTTAGTGAGAAGC CTTGCGGAAGATCACTATGTTAGTGATGCAGGGGATGTCGTGTTCTATCAGTCTGA CCCAGACATCTTCAAGTTTTCCAAGTCCAAGTCAGCCTAA
<i>FAD3d-1</i>	ATGGCGAGCTGGGTTCTATCAGAATGCGGCATAAAGCCTCTCCCTTCCGCCTTCCC TAAGCCCAGAACCGGAGCGCTTTCCCGAAATACCCTCCCCAAGCTCAGGTATTTA CCCCCGAGGAGCAATCTCTCCGCCGCTGCCGACGGCGGCGCCTCAGATCTAAGAC TTAACCTACCTAAATTATCCTCCGTAGAGAAGAAAAAGCCGCTTTTGGGACAGGT GAGAGTTACTGCTCCGTTCAAGGTCGCTCCGGTGAAGGAGGAAGACGGAGAAGG AGAGTCCAATTTGACCCAGGAGCGCCGCCGCGTTCAATTTGGCCGACATTCTGA GCTGCTATACCCAAGCATTGCTGGGTAAAGATCCATGGAGGTCAATGGCTTACG TGGCGAGGGACGTGGCCGTTGTTCTCGGATTGGCAGCTGCCGCAGCTTATCTGAA CAATTGGATCGTTTGGCCGCTGTATTGGGCGGCTCAGGGGACCATGTTCTGGGGCTC TCTTTGTTCTTGGCCATGACTGGTGAGTAAAGTTGTTAACTTTCTCTTTGGTCTTTTA TGCTAATCTTTGTAATAATGGAATAATTGAAGAAAAATTCTCATGTTTGGCAGTGG ACATGGGAGCTTTTCAAGCAATCACAAGCTGAACAGTGTAAGTTGGACACATTCTC CATTCTTCAATTCTTGTGCCTTACCATGGATGGTAACTAAAGCTCTCTGCTTTCCTC

	<p> TGCCCATCTGTCATTTTGTTCCTTCAATTTTGAAGCAATTTGAAACAAATTTTGTATC TATGTCTTTACAGGAGAATTAGCCATAGGACGCATCATCAGAACCATGGACATGT TGAGAACGATGAGTCATGGCATCCTGTGAGTCTTTGTTTCTAAATCTTATCTATAG GATTGATTCAGATGCTGATGTACTAATTTCTGTGACTTTTTCTGTTTTGTTTCTGTTC TTGAAGTTGTCTGAGAAGATATTCAGGAGCTTGGATGCTACAACCTCGAAGTATGA GGTTCACATTGCCTTTCCCATGCTTGCTTATCCTTTCTATCTGGTGAGTTTGTATCT ACAAGAAAGTTCCTTTACAAAATGTGGATTTAGTTAACAGAAGCTAAAAGGGTTC TTTCTTCTTGTTCCGTAATGCAGTGGAACCGGAGTCTGGAAAAAAGGGGTCTCAT TTCGACCCGAGTAGTGATTTGTTTGTGGCGAGTGAGAAGAAAGATGTGATCACTT CCACTGTTTGTGGACAGCTATGGCTGCTTTGCTCGCAGGCTTGCCTTTGTAATGG GTCCAATTCAGATGATCAAGCTATACGGAATCCATATTGGGTATAGACAACATC TTTTGCCTTATCTTGCAAACCTTGTTGTTTCAACTCTCAACCAACCACTCTGCCTCTT GGATGTTTTTGTAGGGATTTGTTATGTGGTTGGATTTTGTAACCTACTTGCATCACC ATGGTCACGACGATAAGCTTCCTTGGTACCGCGGCAAGGTAATCGATGTTCTTTCC TCCTGTGTCTATCTATCTGGTCTTTCATGTTGAATCACTATATCCTAAAATCTTTTCA ATGTATAATTATTGATTCAAACCAAATGAAAAGTCAATTGTTTTGAGATGTCTTTC TAGACTTTTCAGTGAGATTTTGTGAACTTATGCTTGGAACCTTGAACAGGAATGGA GTTACTTGAGAGGAGGGTTAACCACCATTGATAGAGACTATGGATGGATCAACA ACATCCACCACGATATTGGAACCCATGTTATTACCATCTCTTCCACAAATCCCT CACTACCACCTTGATTGAAGCAATAAGCAATAACTTTCCCTTTTCCCTTTAGTTCCAT ATGCAATCTCTTCAATGGGGACACTGAGAAAAAGAAACAACTTTGACCTGAAA ACAAATATCATGATGTTTCAGACGGAAGCTGCAAAGCCAGTGCTTGGGAAGTACT ACAAGGAACCAGCAAAATCAAAACCGTTCCCTTTCCACCTAATCGGAGACTTGAT AAAGAGCTTGAAGAGAGACCATTATGTTAGTGACACCGGAGATGTCGCTACTAT CAAACCTGACCCTGAACCTCAAAGACCCTCATCATCATCATGA </p>
<i>FAD3d-2</i>	<p> ATGGCGAGCTGGGTTCTATCAGAATGCGGCATAAAGCCACTCCCTTCCGCCTTCC CCAAGCCCAGAACCGGAGCGCTTTCCCGGAATACCCTCCCCAAGCTCAGGTATTT ACCCCCCAGGAGCAATCTCTCCGCCGCTGCCGACGGTGGCGCCTCAGATCTAAGC CTTAACCTACCTAAATTATCCTCCGTAGAGAAGAAAAGGCCGCTTTTGGGGCAGG TGAGAGTTACTGCTCCGTTCAAGGTCGCTCCGGTGAAGGAGGAAGACGGAGGAG GAGAGTCCAATTTGACCCAGGAGCGCCGCCGCGTTCAATTTGGCCGACATTTCG AGCTGCTATACCTAAGCATTGCTGGGTAAAGGATCCATGGAGGTCAATGGCCTAT GTGGCGAGAGACGTGGCTGTTGTTCTCGGATTGGCAGCTGCCGCAGCTTTTCTGAA CAATTGGATTGTTTGGCCGCTGTATTGGGCGGCTCAGGGGACTATGTTCTGGGCTC TCTTTGTTCTTGCCATGACTGGTGAGTGAAAATTCTCAATTTTCGCTACTGTGATT ACTAATCTGATGTAAAAAGTGGGTGGAAAGTTCTCATTTTCCCTTTTGAGTGGAC ATGGGAGCTTTTCAAGCAATCACAAGCTGAACAGTGTAGTTGGACACATTCTGCA TTCTTCAATTCTTGTGCCTTACCATGGATGGTAAAAAGCTCTCTGCTTTCCTCTGCT CATCCGCCATTTTGTCTTCAAGTTTGAAGCAATTGAAAAAATAATTGTATCAATG TCTTTACAGGAGAATTAGCCATAGGACGCATCATCAGAACCACGGCCACGTTGAG AACGATGAGTCATGGCATCCTGTGAGTCTTTGTATCTAAATCTTAGCCATAGGGTT GATTCAGATGCCGATGTACTAATTTCTGTGACTTTGTTTGTCTGTTCTTGAAGTT GTCTGAGAAGATATTCAGGAGCTTGGATGCTACAACCTCGAAGTATGAGGTTTACA TTGCCCTTCCCATGCTTGCTTATCCTTTCTATCTGGTGAGTTTGTAGCTGCAAGTA AGTTTCTTTACAAAATATGGATTTAGTTAACGAAGCTAAAAGGGTTATTTCTCCTA ATGCAAGTGGAACAGGAGTCTGGGAAAAAGGGGTCTCATTTGACCCGAGTAGC GATTTGTTTGTGGCGAGTGAGAAGAAAGATGTGATCACTTCCACTGTTTGTGGAC AGCCATGGCTGCTTTGCTCGCAGGCTTGCTTTTGTAAATGGGTCCAATTCAGATGA TCAAGCTCTACGGAATCCATATTGGGTATAGACAACATCTTTGCCTTATCTTAC AGACTTGTTGTTTCAACTCTCAACCAACCACTCTGCCTCTTTGATGTTTTTGTAGGG ATTTGTTATGTGGTTGGATTTTCGTAACCTACTTGCATCACCATGGTCACGACGATA AGCTTCCTTGGTACCGCGGCAAGGTAATCAATGTTCTTTGCTCCTGCGTCTATCTAT CTAGTCTTTCATGTTTAATCACTATATCCTAAAATCTTTTCAATGTATAATTCTTGA </p>

	<p> TTCAAACCCGATGAAAAGTCAATTGCTTTGAGATGTCTTTCTAGGCTTTCAGTGAC ATTTTGTGAACTTGTGCTTGGAACCTTGAACAGGAATGGAATTACTTGAGAGGA GGGCTAACCACCATTGATAGAGACTATGGATGGATCAACAACATCCACCACGAT ATTGGAACCCATGTCATTCACCATCTCTCCACAAATCCCTCACTACCCTTGAT TGAAGCAGTAAGCACTAACGTCCCATTTTCCCTTTAGTTCCATACGCAATCTCTTC AATGGGGAAACTGAGAAAAAGAAACGAACTTTGACCTGAAAACAAATATCATG ATATTTTCAGACGGAAGCTGCAAAGCCAGTGCTCGGGAAGTACTACAAGGAACCG GCGAAATCAAAGCCGCTCCCTTTCCACCTAATCGGAGACTTGATAAAGAGCTTGA AGAGAGACCATTATGTTAGTGACACCGGAGATGTCGTGTACTATCAAACCGACCC CGAACTCCAAAGACCCTCATCATCATCATGA </p>
SAD2-1	<p> ATGGCTCTCAAGCTCAACCCAGTCACCACCTTCCCTTCAACACGCTCCCTCAACA ACTTCTCCTCCAGATCTCCTCGCACCTTTCTCATGGCTGCTTCCACTTTCGAATTCGA CCTCCACCAAATAAGCACCTCCTCCTCCTCGGAATCTCCGCCGATTTCTTTTAAGC GATTGATCGTAGATAAAATTTGTGCGTTGCTTACCGTTCATCAAAATCTGCACGGTT CGTTTCTTCTTCTGCGCCTAGATTGCATTATGTCATTGTTTCCGATTTGACTG ACCGACATAAATCAATTCCTTTGTGTTTCACGATTCTGGGTTTTGCGCTGTAATTGA TTGTCAGTGTTTGCACAGGTTTCCCCTTCTCCTCCTCCGTCCATCAAATGCATGTTA TTACCATTTCAATTTAGCTTCTTCTCTGAAATATCCGTCTCTGGGAAAATAAGTC TCTGTATCTACTATCCTATCAGCTTGTTTAGGAGAGGTTGATATTGTTTTACATAA ACCAATTGGCTTACAGTCCTTGAACGTTCTAAATGTTGGTCGCGGTGATAATAGGT TCTCAAAGAGGTTTGTCTATGTTGTTTGGCAAAATCTGTTTCTGTGAATCATGTT TAAGGTCCTTGAAGAATGACTAATGAGCTATGACATGATTACGACGTAGTAGTT ATTGAACTGCTGATAATTCAATATAGGGGTAACCTTGTGATTGTTTGGTCACAGG GAGGCTGAGAAGCTAAAGAAGTCACATGGACCACCAAAAGAGGTGCATATGCA AGTGACCCATTCCATGCCCCACAGAAGCTGGAGATATTTAAGTCTCTGGAAGGT TGGGCTGAGGATGTTCTATTACCGCACCTGAAGCCAGTTGAGAAATGCTGGCAGC CACAGGATTTCTGCCCCGAACCTGAGTCGGATGGGTTGAGGAGCAAGTGAAGG AGCTCAGGGCAAGGGCCAAAGAAGTCCCCGATGACTATTTTGTGTGCTGGTTGG GGATATGATCACCGAAGAAGCTCTGCCGACTTACCAGACAATGCTCAACACCCTT GACGGGGTGAGGGACGAGACTGGAGCCAGCCTTACGCCGTGGGCAATCTGGACA AGGGCGTGACCGCTGAAGAGAATAGGCACGGTGACCTTCTCAACAAGTATCTA TACCTCTCTGGAAGGGTGGACATGAGGCAAATTGAAAAGACCATTAGATATCTCA TCGGCTCTGGAATGGTATGTAATCACATACTTCATCCTTTTCTATTAATCTTTGCGT GAACAAAATTCATACTACTGGTAGCAGCTGAACTTTAGATGATTTTTTTTACTGC CTAGCTTCTATGAAACAAAACCACGTAAGTCAAATAGGGTTGACAATGAGTTCAA GTGGCAAAATTTTCTTATATACCAACTTCGAACCCTTTATATGACATACCAACT CCTAGTTGGGCGAAAATTCCTCCGTGCAAGATATAATACTTGGATTGGTCAAATG AATTGTGAAAGGATACACGTGATGTGGTCTGGAATTAATTTGTTTGAATGATCAGT TGGGTTCTGGGGCGACAACTGTGAACTGGAACCACCCTAAGTAAATTTCTTTCTGT CCTACAAATTTGAGGTTCTCCTTGATCACCTTAGTCCATCTTAGGTTTGCCCGTTAG TAAGATCTGCATTTAGCAGTTTGTCTGGTATTGATATCACTAGTATCTTTGTTTG ATTCCCTAGCATCTCTGAAACCATCGGACAAGTAGGTGGTTTAGGACAAATTTGG TTCATTGCGGCATTTTTTTGTTTGTATCGCCGTATCATCTGGAAGAAGCAGACAGTTT TGCAAAGTGGCATCAAGCTCAAGAAAGCAACGGCTAGAAGAAGTTCTACATCTG ATGCTTTTCTTTTGTGTTTCTTTGTGTGCTTTTTTGGACTTTGTTCTTTTTTCTGTAGGAT CCAAAACAGAAAACAACCCCTACCTCGGTTTCATCTACACCTCATTCCAAGAGA GGGCAACGTTTCATCTCCACGGAACACAGCCAGACTCGCCAAGGACCATGGGG ACATGAAGCTGGCGCAGATCTGCGGGATCATCGCAGCAGACGAGAAACGGCACG AAACCGCATACACCAAGATCGTCGAGAAGCTCTTCGAGATCGACCCTGACGGTA CAGTGCTGGCACTGGCGGACATGATGAGGAAGAAGATATCGATGCCCCGCCACT TGATGTACGATGGAGAAGACGACAACCTCTTCGACAATTACTCGTCAGTCGCTCA ACGCATCGGGGTGTACTGCCAAGGATTATGCCGATATCCTGGAGTTCCTGGTG GGGAGGTGGAAAGTGGATGCTTTTACGGGGCTTCCGGGGAAGGGAACAAAGCT </p>

	CAGGATTTTGTCTGCGGGCTTCCTGCGAGGATTGAAAGTTGGAGGAGAGGGCTG CGGGGAGGGCAAAGCAAACGTCGAAATCTGTCCCGTTCAGCTGGATCTTCAGCA GAGAATTGGTACTCTAA
SAD2-2	ATGGCTCTCAAGCTCAACCCAGTCACCACCTTCCCTTCGACCCGCTCCCTCAACA ACTTCTCCTCCAGATCTCCTCGCACCTTTCTCATGGCTGCTTCCACTTTCAATTCCA CTTCCACCAAGTAAGTTCCCGTCACCATCTCCTCTTCTCGGAATCTCCGCCGTTT ATTTAAGCGATTGATCGTAGAAAATCTGTCCGGTTGCTTAGCGTTCATTCAAATCTG CGCGGTTTCGTTTCTTTTCTTCTTCAGACTGCATCATCTGCATTATGTTATTGTTTCG TTTCCGATTTGACTAACCTACATAATCAATTCCTTTGTGTTTCACGAGTCTGGATTT TGCGCTGTAATTGATTGTCAGCGTTTGACAGGTTTCCATTTCTCCACCTCCGTCCA TCAAATGCATGTTATTACCTACCAATTTAGCGTCTTTCTCTGGAAATTTCTGTCTC TGTATCTACTATCCTATTAGCTTGTTTGAGAGAGGTTCAATATTGGTTTGCATGAAC CAAGTGGCTTACAATCCTTCAACGTTCTAAATGTTGGTCGCAGTAACAATAGGTTTC TCAAAGAGGTTTTTCTATGTTGTTTGGCAAAATCTTGTTTCTGTGAATCATGTTAA GGTCCTGGGAAGAATGATTAATGAGCTATGACATGATTAAGGCGTAGTAGTTATT GAACTGCTGATAATTCAATATAGGGGTAACCTTTGTTGGTTGTTTGGTGACAGGGAG GCTGAGAAGCTAAAGAAGTCACATGGACCACCAAAAGAGGTGCATATGCAAGTG ACCCATTCCATGCCCCACAGAAGCTGGAGATCTTTAAGTCCCTTGAAGGTTGGG CAGAGGACGTTCTGTTGCCGCACCTGAAGCCGTTGAGAAATGCTGGCAGCCACA AGATTTCTGCCCCGAACCCGAGTCGGATGGGTTTCGAGGAGCAAGTGAAGGAGCT CAGGGCAAGGGCTAAAGAACTCCCCGATGACTATTTTGTGTTGCTGGTTGGGGAT ATGATCACCGAAGAAGCTCTACCGACTTACCAGACAATGCTCAACACCCCTTGACG GGGTGAGGGACGAGACTGGAGCCAGCCTTACGCCGTGGGCAATCTGGACAAGGG CGTGGACCGCTGAAGAGAATAGGCACGGTGACCTTCTCAACAAGTATCTTTACCT CTCTGGAAGGGTGGACATGAGGCAAATTGAAAAGACCATTTCAGTATCTCATCGGC TCTGGAATGGTATGTACTCACATCCTATCTGCTCCTTTATCCTTTTCCATTAATCTTT GATTGAACAAAATTCAATAAACTGGTAGCTGAACTTTAGATGATTTGTTATAAC TGCCTAGCTTCTATGAGAAAACCACTGAAGTCAAATAGGTTTGACAATGGGTTTA AATGGAAAAAGTTTCATATACCATCTTCCATCTATTTTATATGACATACCAACTTC TACTTTGGAGAAAATTCGCCGTGGATAATCATATTATTGAAGATATAGTACTTAGT AGATTGGTTAGATGAACTGTTAAACAATACATGTGATGTCGTGTGCAATTAATTTG TGTAATGATTAGCTGGGTTCCGGACGACAAATGTGAACTGGAACCCTAGTAAAC TATGAATTGAGGTTGTCTTCATCACTTTATTCTGTCTGCTGGGTTTGTTCCTGTTTG CAAGATCTGCATGTAGCAGTTTGTCTGGTATTTGCTACCAGTGGTATCTTTGTTTG ATTCCCTAGCATCTCTGAAAACATCGGACCAAGTATCTGGTTAGGACAAATTTGG TTCATTGCGGCATTTTTTGTGTTGTATCGCTGTATCGTCTGGAAGAAGCAGACAGTTT TGCAAAGTGGCATCAAGCTCAAGAAAGCAACGGCTAGAAGAAGTTCTACATCTG ATGCGTTCCTTTTGTGTTCTTTGTGTGCTTTTGGACTTTGTTCTTTTGCCTGTAGGAT CCAAAAACAGAAAACAACCCCTACCTCGGTTTCATCTACACCTCATTCCAAGAGA GGGCAACGTTTCATCTCCACGGAAATACGGCCAGACTCGCCAAGGACCACGGGG ACATGAAGCTGGCGCAGATCTGCGGGATCATCGCAGCAGACGAGAAGCGGCACG AAACAGCATAACCAAGATCGTCGAGAAGCTCTTCGAGATCGACCCTGACGGTA CAGTGTGGCTCTGGCGGACATGATGAGGAAGAAGATATCGATGCCCGCCCACTT GATGTACGATGGAGAAGACGACAACCTCTTCGACAATTACTCGTCGGTTCGCTCAA CGCATCGGGGTGTATACTGCCAAGGATTATGCTGATATCCTGGAGTTCTTGGTGG GGAGGTGGAAAGTGGATGCTTTTACGGGACTTTCCGGGGAAGGGAACAAAGCTC AGGAGTTTGTCTGTGGGCTTCCAGCGAGGATTGCAAAATTGGAGGAGAGGGCTGC GGGGAGGGCAAAGCAAACGTCGAAATCTGTCCCATTCAGCTGGATCTTCAGCAG AGAATTGGTACTCTAA
SAD3-1	ATGCAAGCCCCCACCACGTCAGCGCCCACCGTCCAGCATGGATGCCACGTGGTG GCCGAACCACCTCCACCACCATCATGCACCTCTGCCCTCCACGCGCCGCCATCAA AACTGCTCCGCCGCCTCCCCCTCCGCTCACCTGAAACACCAACACAAAACCCAC ACAATGCCGGCGGAGAAAATCGAGCTTTTCAAGTCCCTCGAGGATTGGGCCTCCG

	<p> AGAATGTCCTCCCACCTTCTCAAGCCCGTCAATAAATGCTGGCAGCCTCAGGACTT CCTCCCCGACCCGTCCCTCTCCGTCGCTGATTTCTCCGACGAGGTAATGAACAATT GCGTCTCAATACCTTATATAAGCTACACTTTTACAGGGATTTTGAGCTAATATTTG ACAAATTCATCAGTTACGTTTTTTGTCATTACGGATTAGTCATTGTAGTTTTGTCAT TTGTTCATATAGCTACTCATTTTTTCAGTTCATCAAATTCTCATTTTCTATAGTAAGA TCATTTGGAAGGGTTTTGGAGAGTAATTTCTTGGTCCCACATGATTTGATCGAAAT ATCATTTTAAAATACAAAAATAAATTGGGATTTGAAATCACTTCGATAGGCTAGG TTCCCCAAAAGGTGATTTCAGGCTCCCCAAAAGGTGATTTCAAATTCATTTTATGGA CTTGAGATTTGCAAAATCTCAAGTAATTTGAATAGTAAATGATCAAATTATCTTAT TGAGTTTAAGTGAACGAGATAAATTAAGAGGTGCATTAGTCATTTAAAAAATCAA TTTTTTTTTTAATTTTCAAACTATTTTGTGATTGACCGTTAAACCAGTTCGGTTTG ATACTGATTTTGAGTTTTGACTGACAGGTGAGGTTGTTGAGGGAAAGGACGGCGG AGCTACCGGACGAGTACTTCGTCGTCCTTGGTGGGTGACATGATAACGGAGGATGC GTTACCGACGTACGAGACCATGATCAACACACTTGACGGCGTTAGGGACGAGAC GGGCGCCAGTCAAAGCCCATGGGCCTTGTGGACCCGGGCTGGACCGCCGAGGA GAATCGCCACGGCGATCTGCTTCGGACCTTTCTGTACCTATCGGGTCGGGTCGACA TGAGGATGGTAGAAAGGACTGTTTCACTACCTCATTGGATCTGGCATGGTAAGTGT AGAATAGCCCTTTCGGTATTCCGAACCGGTTTGATCCGTCAGTGGGATCTTTCGTT CGATTAATCGGGTGATGAGTATATGCCAACTGGCACTAATTTGTCATTGATTTG ATAGTACATTTTATAAGTTAGTGTTAGCTAGTTACATTGTTTGAGAATGTCACGAA TTCGAAGGAGAAAAAAACCAAATGCCACTTCGATAATTTATTTTACATGATATA GTCATTGAACCTTCAATCTTTTTACAAATCGGATCCAAATTTGTGTACGCAGTGGT CACTCAACTGTCATTTTAGAATAGGAATAGCATTTTAAACAAGTATTTACTCGGT CGGGTAACATTACAGGACCCGGGCACAGAGAACAACCCGTACTTGGGGTTCGTG TACACGTCATTCCAGGAGCGAGCCACATTCATATCGCACGGCAACACGGCTCGGC TAGCCAAGGAGGGAGGGGATCCGGTACTCGCACGGATATGTGGCACCATAGCAT CGGACGAAAAGCGACACGAGAACGCCTACACGCGCATCGTGGAGAAGCTCCTAG AGGTGGACCCGAACGGTGCGGTTTGTGCGGTGGCCGACATGATGCATAAGAAGA TCACAATGCCGGCGCACCTGATGTACGACGGGGAGGACCCGAAGCTGTTTCGAGC ACTTCTCATCGGTGGCTCAGCGGCTGGGGGTGTACACCGCGCAGGACTACGCGGA CATACTCGAGTTCTTGATCGGACGGTGGGGGCTGGACAAGGTGGAGCAAGGGCT GGACGGTGAAGGGAGGCGGGCGCAGGATTTCTGTGTGTGGGCTGCCACGGAGGAT CATGCGGCTCCAGGAGCGAGCCGATGAGAAGGCTAAGAAGATGAAGAAGCCGG AAGCAGTCAAGTTTAGCTGGATTTCAAACGGCAAGTCGTTTTGTGA </p>
SAD3-2	<p> ATGCACCTCTGCCCTCCACGCGCCGCCATCAAACTGCTCCGCCGCCGCTCCTC CGCTCGCCCTGAAACACCAACACAAAACCCACACAATGCCGGCGGAGAAAATCG AGCTTTTCAAATCCCTCGAGGATTGGGCCTCCGTCAATGTCCTCCCACTTCTCAAG CCCGTCGACAAATGCTGGCAGCCTCAGGACTTCCTCCCCGACCCGTCCCTCTCCGT CGCTGATTTCTCCGACAGGTAATGTACATTGTGTTCCAATAACTCGTATTGTAAT GCTACTCGTATTTTGGGCTAATATTTGATAAATTCGTCACTTAACTTTTTTGTCTTG ACGGATTAGTCATTGTAGTTTTATTATTTGTTTCGATTTTCAGTTAAATAATTCTCATT TTTTATAGTAAGATCATTGGAAGGAATTTGGAGAGTAATTTTATGTCCTGGGT GATTTGATCGAAATATCGCGTTGGAACACGAAAATAAAGATGGATTTGAGTAGA AAATAACCAAATTGACTTGTTGAAATTGTATTGTTGAGTGAACAGGGGGTTTATTA GTCATTTACAAAATTAATAATGTTTCTTTAATGTCCAAAACCTCAACAAAACACTGA TTTTGAGATTGGCCGTAAACCAGTTCGGTTTGATAAATACTGATTTTGAGTTTTGA CTGACAGGTGAGGTTGTTGAGGGAAAGGACGGCGGAGCTACCGGACGAGTACTT CGTCGTCCTTGGTGGGTGACATGATAACGGAGGATGCGTTACCGACGTACGAGACC ATGATCAACACCCTTGACGGCGTTAGGGACGAGACGGGCGCCAGTCAAAGCCCA TGGGCCCTGTGGACCCGAGCCTGGACCGCCGAGGAGAATCGCCACGGGGATTG CTCCGGACCTTTCTGTACCTCTCGGGTCGGGTCGACATGAGGATGGTTGAAAAGA CTGTTCACTACCTCATTGGATCTGGCATGGTAAGTGCAGAACAGTCCTTTTTGTGA TTCCGAACCTGGTTTGATCGGTTGGTCGGTTCGTTTCGTTTGTAAATTGGGTGATGAGT </p>

	<p>ATGCGAAATTGTCATAAATTATCATTTTCATAGTACATTTATAAGCTAGTGTTTAG TAACAATTGTTTAAGAATGTTACAAATTTGAACCGGGAAAAAACCAAAATGCCA CTTGATAATTTATTTTGCATGATATAGTCATTGAACCTTTAATCTTCTTACAAATC GGATCCTAATTTGTGTACACATTGGTCACTCAACTGTCATTTTAGAATAGGAATAG CATTTTAACAAGTGATTTACTCGGGTCGGGTAACAATTGCAGGACCCTGGCACGG AGAACAACCCGTACTTGGGGTTCGTATACACGTCATTCCAGGAGCGAGCCACATT CATATCGCACGGCAACACGGCTCGGCTAGCCAAGGAGGGAGGGGATCCGGTACT TGCACGAATATGCGGCACCATAGCATCGGATGAGAAGCGACACGAGAACGCCTA CACGCGCATCGTGGAGAAGCTCCTCGAGGTGGACCCGAACGGTGCGGTTTGTGCC GTGGCCGACATGATGCGTAAAAAGATCACAATGCCGGCGCACCTGATGTACGAC GGGGAGGACCCAAAGCTGTTTCGAGCACTTCTCGGCGGTGGCGCAGCGGCTCGGG GTGTACACGGCGCAGGACTACGCGGACATACTGGAGTTCTTGATCGGACGCTGGG GGCTGGACAAGGTGGAACAAGGGCTGGACGGTGAAGGGAGGCGGGCGCAGGAT TTCGTGTGTGGGCTGCCGCAGAGGATCATCCGACTCCAGGAGCGAGCCGATGAG AAGGCTAAGAAGATGAAGAAGCCGGAAGCCGTCAAATTTAGCTGGATCTTCAA CGGCAAGTCGTCTTGTGA</p>
Atlant	
<i>FAD2a-1</i>	<p>ATGGGTGCCGGTGGCAGAATGTCAGTGCCTCCATCATCCAAACCTATGAAGAGGT CTCCTTACTCAAAGCCACCATTACGCTCGGTGAGCTCAAGAAGGCCATCCCTCC ACACTGTTTCAAACGCTCAATCCCCCGATCGTTCGCCTACGTGGCGTACGACCTCA CCATTGCAGCAATCTTCTACTACATCGCCACCACTTACTTCCACCTCCTCCCTAGC CCTCTCAACTACCTCGCCTGGCCGGTCTACTGGGCCTGCCAGGGCTGCATCCTCAC TGGAGTATGGGTGTTGGCTCACGAATGCGGTCACCATGCCTTCAGCGACTACCAG TGGCTCGACGACATGGTTGGCTTCGTCTCCATTTCGTCCCTCCTTGTTCTTACTTC TCCTGGAAGCACAGCCACCGCCGCCACCATTC AACACGGGATCGTTGATCGTG ATGAGGTGTTTGTCCCAAGCAGAAGGCCGAAATCGGGTGGTACTCCAAGTACCT TAACAACCCACCTGGCCGTGTGATCACATTGGCCGTACATTAACGCTCGGTTGG CCTCTGTACTTGGCATTCAACGTCTCCGGGAGACCATATGACCGGTTTCGCATGCCA TTTTGACCCTCACGGTCCGATTTACAATGATCGCGAGCGTATGGAGATATACCTAT CCGACGCAGGGATATTCACCGTGTGCTACATCCTATACAGACTCGTCCTCACGAA AGGACTCGTTTGGGTCTGTGCCATATACGGAGTCCCACTATTGATAGTGAATGGAT TCCTAGTCCTCATCACTTTCTTGCAGCACACGCATCCTTCTCTTCCGCACTACAAGT CCTCCGAATGGGACTGGATGCGAGGCGCCCTCTCGACCGTGGATCGAGACTACGG GTTACTCAACACCGTGTTCACAACATCACCGATACACATGTCGCGCACCATCTC TTCTCCACGATGCCTCATTACCACGCGATGGAGGCTACCAAGGCGATCAAGCCGG TTCTCGGGGAGTATTACCAGTTCGATGGGACTCCCTTTGTGAAGGCCATGTGGAG GGAGGCAAAGGAGTGCATCTATGTCGAGCCGGATGAAGGCGACCCAGCCAAGG CGTGTCTGTTACAACAACAAGCTGTGA</p>
<i>FAD2a-2</i>	<p>ATGGGTGCCGGTGGCAGAATGTCAGTGCCTCCATCATCCAAACCTATGAAGAGGT CTCCTTACTCAAAGCCACCATTACGCTCGGTGAGCTCAAGAAGGCCATTCTCC ACACTGTTTCAAACGTTCAATCCCCCGATCGTTCGCCTACGTGGCGTACGACCTCA CCATTGCAGCAATCTTCTACTACATCGCCACCACTTACTTCCACCTCCTCCCTAGC CCTCTCAACTACCTCGCCTGGCCGGTCTACTGGGCCTGCCAGGGCTGCATCCTCAC TGGAGTATGGGTGTTGGCTCACGAATGCGGTCACCATGCCTTCAGCGACTACCAG TGGCTCGACGACATGGTTGGCTTCGTCTCCATTTCGTCCCTCCTTGTTCTTACTTC TCCTGGAAGCACAGCCACCGCCGCCACCATTC AACACGGGGTGCCTTGATCGTG ATGAGGTGTTTGTCCCAAGCAGAAGGCCGAAATCGGGTGGTACTCCAAGTACCT TAACAACCCACCTGGCCGTGTGATCACATTGGCCGTACATTAACGCTCGGTTGG CCTCTGTACTTGGCATTCAACGTCTCCGGGAGACCATATGACCGGTTTCGCATGCCA TTTCGACCCTCACGGTCCGATTTACAATGATCGCGAGCGTATGGAGATATACCTAT CCGACGCAGGGATATTCACCGTGTGCTACATCCTATACAGACTCGTCCTCACGAA AGGACTCGTTTGGGTCTGTGCCATTTACGGAGTCCCACTATTGATAGTGAATGGAT TCCTAGTCCTCATCACTTTCTTGCAGCACACGCATCCTTCTCTTCCGCACTACAAGT</p>

	CCTCCGAATGGGACTGGCTGCGAGGCGCCCTCTCGACCGTGGATCGAGACTACGG GTTACTCAACACCGTGTTCCACAACATCACCGACACACATGTCGCGCACCATCTC TTCTCCACGATGCCTCATTACCACGCGATGGAGGCTACCAAGGCGATCAAGCCGG TTCTCGGGGAGTATTACCAGTTCGATGGGACTCCCTTTGTGAAGGCCATGTGGAG GGAGGCCAAAGGAGTGCATCTATGTCGAGCCGGATGAAGGCGACCCAGCCAAGG CGTGTTCTGGTACAACAACAAGCTGTGA
<i>FAD2b-1</i>	ATGGGTGCTGGTGGAAGAATGGCCGTGCCTCCATCGAACAAGGCGGACTCCGAA ACCTTTAAGCGGTCTCCTTACTCAAAACCTCCCTTCACTCTTGGTGAGATCAAGAA AGCCGTCCCTCCACACTGCTTCAAAAGGTCCATCCCCCGCTCGTTCTCCTACGTGG CTTATGACCTCACCATAGCCGCCATCTTCTACTACATCGCCACCACTTACATCCAC CTCCTCCCCAATCCTCTCTCCTACGTGGCGTGGCCGATCTACTGGGCCTGCCAAGG CTGCGTCTCACTGGTGTCTGGGTCTAGCCACGAATGCGGTACCACGCCTTCA GCGACTACCAATGGCTCGATGACTTGGTCGGCTTTGTCTCCTCACTCATGCCTCATG GTACCCTACTTCTCGTGGAAGCACAGCCACCGTCGCCACCACTCCAATACTGGGT CCCTCGAACGAGACGAGGTTTTTGTCCCCAAGCAGAAATCAGCCATTGGCTGGCA CTCAAAGTACCTCAACAACCCACCTGGCCGTGTGCTCACACTTGCAGTCACTCTC ACTCTCGGCTGGCCTTTGTACTTGGCATTCAACGTCTCTGGAAGGCCGTACGACCG GTTTCGCTGCCATTACGATCCTAAATCCCCCATCTACAACGACCGCGAGCGAACG GAGATATTCTTCTCCGATGCTGGCATCCTTGCTGTGAGCTTTGCGTCTACAAGCTT GCTGTGCCAAGGGACTGGCTGGGTGGTTTGTGTCTACGGAGTTCCACTCCTTGT AGTGAATGGATTCCTTGTCTTGATCACTTTCTTGCAGCACACCCACCCATCATTGC CGCACCACAAATCCTCCGAATGGGACTGGCTGAGAGGTGCTCTGGCGACCATGG ACAGAGACTACGGGTTTCTGAACACGGTGTTCATAACATCACGGATACCCACGT GGCGCATCACCTGTTCTCGACGATGCCTCATTACCATGCAATGGAAGCTACAAAG GCGATCAAGCCGGTACTGGGAGAGTACTACCACTTCGACGGGACTCCATTCATCA AGGCGATGTGGAGGGAGGCTAAGGAGTGTGTCTATGTCGAGCCTGACGAAGGTG ACCAGAACAAAGGCGTGTTCTGGTACAACAACAAGCTGTGA
<i>FAD2b-2</i>	ATGGGTGCTGGTGGAAGAATGGCTGTGCCTCCATCGAACAAGGCGGACTCGGAA ACCTTTAAGCGGTCTCCATACTCAAAACCTCCATTCACTTGGTGAGATCAAGA AAGCCATCCCTCCACATTGCTTCAAAAGGTCCATCCCCCGCTCATTCTCCTATGTG GCTTATGACCTCACCATTGCCGCCATCTTCTACTACATCGCCACCACTTACATCCA CCTCCTCCCCAATCCTCTCTCCTACGTTGCGTGGCCTATCTACTGGGCCTGCCAAG GCTGCGTCTCACCGGTGTCTGGGTCTAGCCACGAATGCGGTACCACGCCTTC AGCGACTACCAATGGCTTGATGACTTGGTCGGCTTTGTCTTCACTCATGCCTCAT GGTCCCCTACTTCTCGTGGAAGCACAGCCACCGTCGCCACCACTCCAACACCGGG TCCCTTGAACGAGATGAGGTTTTCTGCCCAAGCAGAAATCGGCCATCGGCTGGC ACTCAAAGTACCTCAACAATCCACCTGGCCGTGTGCTCACACTTGCAGTCACTCT CACTCTCGGCTGGCCTTTATACTTGGCATTCAACGTTTCGGAAGGCCGTACGACC GGTTCGCTGCCATTACGATCCTAAATCCCCTATCTACAACGACCGCGAGCGAAC TGAGATCTTCCTCTCCGATGCCGGCATCCTTGCTGTGAGCTTTGCAATCTACAAGC TTGCTGTGCCAAGGGACTGGCTGGGTGGTTTGTGTCTATGGAGTTCCACTCCTT GTAGTGAATGGATTTCTTGTCTTAATCACTTTCTTGCAGCACACCCACCCATCATT GCCGCACTACAAATCCTCCGAATGGGACTGGCTGAGAGGTGCTCTGGCGACCATG GACAGAGACTACGGGTTTCTGAACACGGTGTTCATAACATCACGGATACCCACG TGGCACATCACCTGTTCTCGACGATGCCTCATTACCATGCGATGGAAGCTACCAA GGCGATCAAGCCGGTACTGGGAGAGTACTACCAGTTCGATGGGACTCCATTCATC AAGGCGATGTGGAGGGAGGCTAAGGAGTGTGTCTATGTTGAGCCTGACGAAGGT GACCAGAACAAAGGCGTGTTCTGGTACAACAACAAGCTGTGA
<i>FAD2c-1</i>	ATGTTCTCATCCTCTGCAACTAAAATGCCGGCGCCGCTTCATCATCCAACACGA CCATGAAGCGATCGCCTCACTCAAAGCCGCCGTTACCGTCTCCGACGTCAAGAA AGCCATTCCACCACACTGCTTCAAAGGTCCCTCCTCCGATCATTCTCCTACCTAA CCTACGACCTCACCATCATCAAAATCCTCTACCAAGTCGCCACCACTTACTTCCAC CTCCTCCCGACACCTCTCTCATCCTACGTGGCATGGCCGGCCTACTGGGCCGGCCA

	AGGCTGCTTCTTCGTCGCTGTATGGATGGTGGCCCACGAGTGTGGCCATCACGCCT TCAGCGACCAGCACTGGCTGGAAGACTCGGTTCGGATTATCCTCCACTCAGCCCT CCTTTCACCTTACTTCTCATGGAAGCACAGCCACCGTCGCCACCATGCCAACACG AGCTCCCTCGAACGTGACGAGGTGTTCTGCCCTAAACCCAAGTCCAAGCTGAGCT GGCACTTCAAGTTCTTCAACAACCCGCTGGCCGCGTCCTGCAGTTGGCATTGCT CTGCTTCTTGGATGGCTCTCTATTTGGCGATCAACATCGCCGGAAGGCCGTACGA GAAATTCGCTAGCCACTTCGATCCGAGAAGCCCTATCTACAACGATCGAGAGCGG ATCGAGATATTCGCATCCGATGTTGGCGTGCTCTGCATGTGGTTTCGCGCTGTATAA ACTTGCTCTAGTGAACGGAGTTGGTTGGGTTGTTTGTGTGTACGGGATCCCGCTGT TGGTGATGAATGGATGGGTTCGTACGATCACTTACTTGCATCACACGCATATAGC GTTGCCGCGGTATGATTTCGTCCGAATGGGATTGGTTGAGGGGTGCATTGGCGACT GTGGATAGGGACTATGGTGTTTTGAACAAGGTGTTTCATAACATCACGGATACTC ATGTGGCGCACCATCTGTTTTTCGGCGATGCCTCATTACCATGCGGCGGAAGCGAC CGAGGCGATCAAGCCCGTTTTGGGCGAGTATTATCGGTGTGACCGGACTCCTATT ATCAAGGCGTTATGGAGGGAGTTTAAGCACTGTATTTATGTCGAGTCAGATGAGG ATAAAGGCGTGTTTTGGTTCAATGACAAGTTGTAA
<i>FAD2c-2</i>	ATGCCGCCGCCGCTTCATCATCCAACACAACCATGAAGCGATCGCCACACTCAA AGCCGCCGTTACCCCTCTCTGACATCAAGAAAGCCATACCACCGCACTGCTTCCA AAGGTCCCTCCTCCGATCATTTCCTACTTAGCCTACGACCTACCGCCGTCACAA TCCTCTACCACATCGCCACCACGTACTTCCACCTCCTCCCGACACCTCTCTCATCC TACGTGGCTTGGCCGGCCTACTGGGCCAGCCAAGGCTGCTTCTTCGTCGCTGTATG GATGGTGGCCCACGAGTGCGGTCAACCACGCCTTTAGCGACCAACACTGGCTGGA AGACTCGGTAGGGTTCATCCTCCACTCGGCCCTCCTTTCGCTTACTTCTCGTGGA AGCACAGCCACCGCCGCCACCACGCCAACACTAGCTCCCTCGAGCGTGACGAGG TGTTTCGTCCCTAAGCTGAAATCCAAGCTGAGCTGGCACTTCAAGTTCTTCAATAAC CCGCCTGGCCGCGTCTCTGCAGCTGGCCTTTGCTCTGCTTCTAGGATGGCCTCTCTA CCTTGCGGTCAACATCGCAGGAAGACCGTACGAGAAATTCGCTAGCCACTTCGAT CCGCGAAGCCCTATCTATAACGATCGGGAGCGAAATGAGATATTTGTATCTGATG TTGGCGTGCTTGCTATGTGGTTCGCTCTGTATAAACTTGCCCTGGCGAACGGAGTT GGTTGGGTGTTTGTGTGTACGGGGTCCCTCTGTTGGTGATGAATGGATGGATCGT TACGATCACTTACTTGCATCACACGCATGTCGCATTGCCGCGGTATGATTCTCGG AGTGGGATTGGTTGAGGGGTGCGCTCGCGACTGTAGATAGGGATTATGGGGTTTT GAACAAGGTGTTTCACAACATTACAGATACTCATGTGGCGCACCATCTGTTTTCG ACGATGCCTCATTACCATGCGGCGGAAGCAACCGAAGCGATCAAGCCCGTTTTGG GTGAGTATTATCGGTCTGACCGGACTCCTATCGTCAAGGCATTATGGAGGGAGAC TAAGCACTGTGTTTATGTCGAGGTTGATGAAAAAAAAGGCGTGTTGTGGTTCAAT GATAAGATGTGA
<i>FAD2d-1</i>	ATGGTATCCAATACCACCATAAAGCGAACACCGACCTCAAAACCGCCGTTACCC CTCTCCGACGTCAAGAAAGCAATACCACCGCACTGCTTCCAAGATCCCTCCTCA AATCCTTACCTACCTAGCCTACGATCTACCGTCATCACAATCCTCTACCACATC GCCACGTCATACTTCCACCTCCTCCCCAACCCTCTCTCCTACGTGGCGTGCCGCT CTACTGGGCGGCCAGGGGTACACTTCATCGCCGTCTGGGTATCGCCACAGAG TGCGGCCACCACGCCTTCAGCGACTACCAGTGGCTAGACGACGCCGTTGGGTTTCG TCCTCCACTCCCTCCTCTTAGCTCCTTACTTCTCCTGGAAGCACAGCCACCGCCGT CACCACGCCAACGCCGCTCCATCGAGCGCGACGAGAATTACATCCCGAAAAAG AAGGACGAAGTCAACTGGCATTTTAAATACCTCGACAACCCTCCCGGACACGTGT TCTATATATTCTTCACTCTACCCCTCGGATGGCCGCTCTACTTGCTGGTCAACATCT CCGGCAGGAAATACGACGACGGATTCGCCAGCCATTTGTATCCTTTCTCCCTATC TACAACGACCGCGAGAGATTCTGGGATAGTCCTCTCCGTGCGCGGGATGCTCGCCA CGTGTTTCGGTCTTTATAAACTCGCGATGGTCAACGGGTTTCGGTTGGGTTGTTTGC GTGTACGGGGTGCCTCTCATTCTCCAGAATGCGATGTTGATTACCATCACTTACTT GCACCACACGCATCTCAACTTGCCCCACTACGACTCGTCGGAGTGGGACTGGATG AGGGGTGCGCTCGCGACTGTGGATAGGGATTACGGAATTTTGAATAAGGTGATGC

	ATAATATTACGGATACCCACGTGGCGCACCATCTGTTCTCGATGATTCTCATTAT CATGCGATGGAGGCTACAAATGCGATAAAGCCGTTCTTGGGGAGTACTACCAA GTTGATACTACGCCGTTTTTGAAGGCGTTGTGGAGAGAGACTAAGGATTGTGTTTA TGTTGAGGCGGATGATGAGGGATCTGATCGGGAGAAGAAAGGAGGGGTGTTTTG GTTCAAAACCAAGCTGTAA
<i>FAD2d-2</i>	ATGGTATCCAATACCACCCTAAAGCGAACACCGACCACAAAACCGCCGTTACCC CTCTCCGACCTCAAGAAAGCAATACCACCACACTGCTTCCAAAGATCCCTCCTCA AATCCTTCTCCTACCTAGCCTACGACCTCACCGTCATCACAATCCTCTACCACATC GCCACGTCATACTTCCACCTCCTTCCCAAACCTCTCTCCTACGTGGCCTGGGTGGC CTATTGGGGCCGCTCAGGGGTCCCACCTTCATCGCCGTGTGGGTTCATCGCCCACGAG TGCGGCCACCACGCCTTCAGCGACTACCAGTGGCTAGACGACGCCGTGCGCTTCC TTCTCCACTCCCTCCTCTTAGCTCCTTACTTCTCCTGGAAGCACAGCCACCGCCGC CACCACGCCAACGCCGCTCCATCGAACGTGACGAGAATTACATCCCGAGAAAG AAGGACGAAGTCAACTGGCATTTTAAGTACCTTGATAACCTCCCGGACACGTGT TCTATATATTCTTCACTCTCACCTCGGATGGCCGCTCTACTTGCTGGTCAACATCT CCGGGAGGAAATACGACGACGGATTCGCCAGCCATTTGTATCCTTTCTCCCCGAT CTACAACGATCGGGAGAGGTTCCGGGTGTTCTCTCCGTGCGGGGGATGCTCGCC ACGTGGTTCGGACTTTATAAGCTCGCAATGGTCAACGGTCTCGGCTGGGTGTTTG CGTGACGGGGTCCCTCTGATTCTCCAGAATGCGATGTTGATTACCATCACTTACT TGCACCACACGCATCTCAACCTGCCCCACTACGACTCGTCGGAGTGGGACTGGAT GCGGGGTGCGCTCGCGACTGTGGATAGGGACTACGGGATTTTGAACAAGGTAAT GCATAATATTACGGATACTCACGTGGCACACCATCTGTTTTTCGATGATTCTCATT ACCATGCGATGGAGGCTACGAATACGATCAGGCCGTTCTGGGGGAGTACTACC AGGCCGATACGACGCCGTTTATTAAGGCGTTGTGGAGGGAGACTAAGGACTGTGT TTATGTTGAGGCGGATGATGAGGGCGGTGATCAGGAGAAGAAAGGAGGGGTGTT CTGGTTCAAAACCAAACTGTGA
<i>FAD2e-1</i>	ATGTCCCCTATTTACAGCGACCGCGAGCGAGCCGAGGTATTCGCCTCAGATGTTG GCTTGCTCGCTGTCTGCTTCGCGTTGTACAACTTATTATGGTCAAGGGAATGGCG TGGGTTTTTTGCGTCTATGGGGCTCCGGTCATGGTGGTGAATGGATTCTTCATTACC ATCACTTACTTGCATCACACTCATCTCGCGGTCCCGCGATACGATTTCGTCTGAATG GGATTGGTTGAGGGGAGCCCTGGCAACCATGGACAGGGACTTTGGCCTTTTGAAC AAGGTGTTCCATAATGTTACAGATACTCACGTGACGCACCATCTGATTTCGACGA TCCCTCATTATCATGCCATGGAAGCCAACAACGCAATTAGGCCCGTGTTGGGGGA CTACTACCATATCGACAGGACGCCGTTGGTTAAGGCGTTGTGGAGGGAGGCTAA GGAGTGTGTTTACATCGAGGCCGATGATGGTGAAAAGAACAAGGCGTGTTCTG GTTCAATACCAAGCTCTAA
<i>FAD2e-2</i> (exon- intron junctions are not given)	ATGCACTTTCCGATAGCTAGCCTTTGTCTCATGCTAAAAACAGGCCATACATGGC GCCACAAAGCACTGCTCTAGTAAGTACACATGATTGGGATTACACTACACTTCAG TAATTTAAATCAGTCCATATTTTACCTGGATCCAAAGTTGAAAACCTAACTCAAAAA CAAATTTGTGCAAAATTGAGCATCAAATGAGACAATATTAACTATTTTCGAGTTTT GTTGGGCTGTTCTCGAGTTGTACTAGCCTCTCCGAAAACATGTATAAAAAGCACTC GACCTATTCATATTAGACAACATCAAAATCCCACCAATCAATCAAAAAACAGAG AGACACATCTAAAAGCGCCCCCCCCCCCCCCCCCTTTACAAAATGGTGGAGCG ACGTTTCATCCAACAAGGCGGCGGCGGCGGAAACCGAAACCGCCGTCGTCAA GCGGTTCCCGTCCCTCAAAGCCGCCGTTTCACACTCGCCGACCTCAAGAAGGCCATT CCGCCGCACTGTTTCAAAGATCCATCCCACGTTCCTTCTCCTACTTGTTTTTCGAC CTCATCGTCGCCGCGTCTTCTACCACATCGCCGCCACTTATTTCCCCCTCATCCCC AAACCTCTCTCCTACGTGGCGTGGCCGGCCTACTGGTTCGTCCAGGGCAGCGTCCT GACCGGTGTGTGGGTTCATCGGCCACGAGTGCGGCCACCACGCATTTAGCGAGCAC CAGTGGCTCGACGACCTGGTCGGGTTCACTTCTCCACTCGGCCCTCCTACCCCTTA CTTCTCGTGGAAGATCAGCCACCGCCGCCACCACGCCAACACCTGCTCCCTCGAG CGCGACGAGGTATATACTGTTGGGAACCGGACAAGAAGCAATATTCAGGGTTTAT CGATCTGGCTGAGTATACATGGACAACTATCCATCAACATCCAAGATAAAAAC

	AGAGCTATAACTTTCAACTTCCATGTGCAAAAATAGGGAGATGAATAAAATTTCA GATAATTTAAACAAATAAATTATCTCCAAAATGAATAATATTGGTCTCAAGTCCA ATCCAACCTGGAGAACTGGATCTTTCTACAAAGACGTTTTTGCATTAGTCTTTTTTT CTTTCTCCGATGTGATATTTGAGACTTAATTATTCACATTTTTTCAACAGGTGTACAT TCCGAGGAAGAAGTCTCAGTTGCGGTGGTGGTACTCGAGCTACCTGAACAACCCG CCCGGCAGACTTTTGGCGCTGGCTTACACCATCCTCCTCGGCTGGCCTTCCTACTT GACTTTCAACCTATCCGGTAGGGAATACAACGGTTTCGCCTGTCATTTCTACCCGA TGTCCTTATTTACAGCGACCGGGAGCGGGCCGAGGTATTCGCCTCCGATGTTGG CTTGCTTGCTGTGTGCTTCGCGCTGTACAACTTATCCTCGTCAAGGGAATGGCGT GGGTTTTTTGCGTCTACGGGGCTCCGGTCATGGTGGTGAACGGATTCTTCATAACC ATCACTTACTTGCACCACACTCATCTTGCGGTCCCGCGGTACGATTCCTCGGAATG GGATTGGTTGAGGGGAGCCCTAGCAACGATGGATAGAGACTTTGGGTTATTGAAC AGGGTGTTCATAACGTTACAGATACTCATGTGACGCACCATCTGATCTCGACCA TCCCTCACTACCATGCCATGGAAGCCAACAACGCGATTAGGCCCGTGTTGGGGGA CTACTACCACATCGACAGGACGCCTGTCGTTAAGGCGTTGTGGAGGGAGGCTAAG CAGTGTGTTTACATCGAGGCGGACGAAGGTGAAAATAACAAAGGCGTGTTCTGGT TCAATACCAAGCTCTAA
<i>FAD2f-1</i>	ATGGTGTCTCTCCGGCAAAAACCATGAGCAACAAAACCACCACGAAGCGGCCGCCG GTGTCAAAAACCGCCGTTCACTCTGGCCGACATCAAGAGAGCCGTACCGCCACACT GCTTCAAAAAGATCCCTCGTCAAATCATTGCGCTACCTAGCCTACGACCTCACCGTC ATCACAATCCTCTACCACATCGCCAACACATACTTCCACCTCCTCCCCAAACCTCT CTCCTACGTGGCGTGGCCCGTCTATTGGGCTGCCCAATGCTGCTTTTTCGTCGCTTT ATGGATGGTGGGCCACGACTGCGGCCATCATTATTGAGCGACTATCAGTGGGTG GACGACACCGTTGGATTGCTGCTCCACTCGTTTCTCCTCGCCCCTTACTTCTCGTGG AAGCATAGCCACCGCCGCCACCACGCCAACTCCGGATCTCTAGAACGCGACGAG TCGTTGCTCCCGAAAACCAAAGACAATATCACCTGGCACTTCAAGTACCTCGACC ACCTACCGGGGCGGATCTTCTACGTGGTCTTCACTCTAACCCTCGGATGGCCGCTC TACTTGATGTTCAACATCACCGGAAGGCCGTACAAGGACGGATTGCGCCAGTCATT TCTACCCCATGTGCGCTATCTACGAGGATCACGAGCGGTTGCGAATATTCTCTCT GATGTTGGCATGCTCGCTATGTGGTTCACACTCTACAAGCTTTCGGTGGCGTATGG AGTCGGTTGGGTTCTTTGTGTGTATTTTATTCCGCTGGTTTTACAAAATGCGTTGTTT GTCACGATCACTTACTTACACCACACGCATCTGAACTTGCCTCACTATGACTCTTC GGGGTGGGACTGGATGAGGGGGTTCGTTGACGACTGTGGATAGGGACTATGGGTTT TTGAACAAGGTGTTGCATAACGTGACAGATACTCACGTGGCGCACCATCTGTTCA CCCATATGCCTCATTACCACCAATCGGAAGCGACCAAGGCGTTTATTCCGGTTTTG GGGGAATACTACCAGGTTGATCCGACTCCGTTCTACAAGGCGTTGTGGAGGGAGA TGAAGCACTGTGTTTATATCGAGCAAGATGAGGATGCGGATTCTGATAATAACAA AAAAGGCGTGTA CTGGTACAAAACCAAGCTCTAA
<i>FAD2f-2</i>	ATGGTATCCTCCGACAAAACCACGAACAACAAAACCACCACGAAGCGGCCGCCG CTGTCAAAAACCGCCGTTCACTCTGCGGACATCAAGAGAGCCGTACCGCCGCACT GCTTCAAAAAGATCTCTAGTCAAATCATTGCGCTACCTAGCCTACGACCTCACCGTC ATCACCTTCCTCTACCACATCGCCAACACATACTTCCATCTCCTCCTCAAACCTCT CTCCTACGTGGCGTGGCCCTCTACTGGGCCGCTCAATGTTGCTTCTTCGTCGCTTT ATGGATGGTGGGTCATGATTGTGGCCACCATTGTTTACGCGACTATCAGTGGATTG ACGACACTGTCGGTTTCATCATCCACTCGTTCCTCCTTGCTCCTTATTCTCCTGGA AGCACAGCCACCGCCGCCATCATGCCAACTCCGGATCTCTAGAACGCAACGAGT CATTCGTCCCGAAAACCAAAGACAATATCGCCTGGCACTTCAAGTACCTCGACCA CCTACCGGGGCGGATCTTCTACGTGCTTTTCACTCTGACCCTCGGGTGGCCACTAT ACTTGATGTTCCACATCACTGGAAGGCCGTACAAGGATGGATTGCGCCAGCCATT CTACCCCATGTGCGCGATCTATGAGGATCACGAGCGGTTGCGGATATTCCTCTCCG ACGTTGGAATGCTCGCCATGTGGTTCACGCTCTACAAGCTCTCAATGGCGTATGG AGTCGGTTGGGTTCTTTGTGTGTATTTTATTCCGTTGGTTTTACAAAATGCTTTGTT GTTACGATTACTTACTTGCACCACACGCATTGAACTTACCTCACTATGACTCTTC

	GGGGTGGGACTGGATGAGGGGGTCGTTGACGACTGTGGATAGAGACTATTCGTTT TTGAACAAGGTGTTGCATAACGTGACAGATACTCACGTGGCGCACCATTTGTTCA CACATATGCCTCATTACCATCAATCGGAAGCGACCAAGGCGTTTCATTCCGGTTTTG GGGGAGTACTACCAGGCTGATCCGACGCCGTTCTACAAGGCGTTGTGGAGGGAG ATAAAGCATTGTGTTTATGTTGAACAAGATGAGGATGCGGATTCCGATCAGAACA AAAGAGGAGTGTACTGGTACAAAACCAAGCTGTGA
<i>FAD2g-1</i>	ATGAACAACAGAACCACCACGAAGCTGCTGCCGCTGTCAAAACCGCCGTTCACT CTGGCCGACATCAAGAGAGCCGTACCGCCACACTGTTTCAAAAGATCCCTCGTCA AATCATTGCGCTACCTAGCCTACGACATCACCGTCATCACAATCCTCTACCACATC GCCAACACATACTTCTACCTCCTCCCCAAACCTCTCTCCTACGTGGCGTGGCCCGT CTATTGGGCGGCCAAAGCTGCTTCTTCGTCGCTGTATGGATGGTGGGTACGATT GCGGCCACCATTCAATTCAGCGACTACCAGTGGGTGGACGACACTGTGCGATTCTG CGTCCATTCTGTTCTCCTCACCCCTTACTTCTCGTGGAAGCACACCCACCGCAGCC ACCACGCCAACAACGGATCTCTAGAACGCGACGAATCTTTCGTCCCCAAGACCA AAGACGAAGTCAGGTGGCACTTCAAGTACCTCGACCACCTACCGGGGCGAATCTT CTACGTGTTCTTTACTCTAACCCTAGGATGGCCTCTCTACTTGATGTTCAACATCAC CGGAAGGCCGTACAAGGATGGATTGCTAGCCATTTCTACCCCATGTGCGCTATG TACGAGGACCATGAGCGGTTTGGAGTAGTCCTGTCCGACATGGGAATGCTCGCTA TGTGGTTTACGCTCTACAAGCTCTCGGTGGCGTTCGGAGTCACTTGGGTTCTCTGT GTGTACTTTATTCCACTAGTTTTACAAAACGCGTTGTTTGTACGATCACTTACTTG CACCACACGCATCCAAACGTGCCTCGTTATGACTCTTCGGGGTGGGGTTGGATGA GGGGGTCGTTGGTGACCGTGGATAGAGACTATGGGTTTTTGAATAAAGTGTTCCA TAACGTGACGGATACTCACGTGGCGCACCATCTGTTACGCATATGCCTCATTACC ACCAATTGGAAGCTACCAAGGCGTTCATCCCGATTTTGGGAGAGTACTACCAGGC TGATCCAACACCGTTCTATAAAGCATTGTGGAGAGAAATGAAGCACTGTGTTTAT GTCGAACAAGACAAAGATGCAAATGTGATCAGAACAAAAGAGGTGTGTATTGG TACAAAACAAAGTCGTGA
<i>FAD2g-2</i>	ATGGTATCCTCCGACAAAACCATGAACAACAAAACCACCACGAAGCTGCTGCCG CTGTCAAAACCGCCGTTCACTCTCGCCGACATCAAGAGAGCCGTACCGCCACACT GCTTCAAAAGATCCCTCGTCAAATCATTGCGCTACCTAGCCTACGACATCACAGT CATCACAATCCTCTACCACATCGCCAACACATACTTCCACCTCCTCCCCAAACCTC TCTCCTACGTGGTGTGGCCCCCTCTACTGGGCTGCCCAATGTTGCTTCTTCGTCGCG TATGGATGGTGGCCCATGACTGTGGCCACCATTCAATTCAGCGACTATCAATGGGT CGACGACACCGTCGGTTTCATCATCCACTCGTTCCTCCTCGCCCCCTTACTTCTCATG GAAGCACACCCACCGCAGCCACCACGCCAACAATGGATCTCTAGAACGCGACGA GTCTTTCGTCCCCAAGACCAAGACGAAATCAGGTGGCACTTCAAGTACCTCGAC CACCTACCGGGGAGAATCTTTTACGTGTTCTTCACTCTAACCCTAGGATGGCCTCT CTATTTGATGTTCAACATCACCGGAAGGCCGTACAAGGACGGATTGCGCCAGCCAT TTCTACCCCATGTGCGCTATGTACGAGGACCACGAGCGGTTCCGAGTAGTCCTCTC TGACATGGGAATGCTCGCCATGTGGTTCACGCTCTACAAGCTCTCAATGGCGTAC GGAGTCAGTTGGGTTCTCTGTGTGTACTTTATTCCACTGGTTTTACAAAATGCGTTG TTTGTACGATCACTTACTTGCACCACACGCATCCGAACCTGCCTCGTTATGACTC TTCGGGGTGGGGTTGGATGAGGGGGTCGTTGGTAACTGTGGATAGAGACTACGGG TTTTTGAACAAGTGTTGCATAACGTGACAGATACTCACGTGGCGCACCATCTGTT CACGCATATGCCTCATTACCACCAATTGGAAGCTACCAAGGCGTTCATTCCGGTTT TGGGGGAGTACTACCAAGCTGATGCAACGCCGTTCTACAAGGCATTGTGGAGGG AGATGAAACACTGTGTTTATGTTGAGCAAGATGAGGATGCAGATTCCGACCAAA ACAAAAGAGGTGTGTACTGGTACAAAACCAAGCCGTGA
<i>FAD2h</i>	ATGGTATCCAACAAAACCATAAACC GGCCGCCGTCCTCAAAACCGCCGTTCAATCC TCTCCGACATCAAGAAAGCAATCCCAACCACTGCTTCCGCAAATCCCTCCTCCG ATCATTCTCCTACGTAGCCTACGACCTCGCCGTCATCGCAATCCTCTACCACATCG CCACGTCATACTTCCACCTCCTCCCCAAACCTCTCTCCTACGTGGCCTGGCCGGCA TACTGGGCCGCCAGGGATCCCACTTCATCGCCGTCGTTGCTGGCCACGAGT

	<p>GCGGCCACCACGCCTTCAGCGACTACCAGTGGCTAGACGACGTCGTCGGATTTCGT CCTCCACTCCGCTCTCCTCTCGCCGTA CTTCTCGTGGAACACAGCCACCGCCGCC ACCACTCCAACTCGGCATCTCTAGAACGCGACGAGCTGTACATCCCGAAGAAGA AATCGGAGATTAGCTGGCATTACAAGTACCTCGACAACCCGCCGGGTTCATCTTTT CTACTTGGTGTTCACTCTCACTCTCGGATGGCCTCTCTACGTGATGTTCAACGTCTC CGGCAGGGAATACGACGACGGATTTCGCTAGCCATCTGTATCCTTTCTCCCCGATCT ACAACGAACGGGAGAGATTTCGGGATACTTTTGTTCGGACGCTGGGATGCTTGCCAC TTGGTTTGGTCTGTACAAGCTGTCCATGGTCAACGGACTGAGTTGGGTTGTTTGTG TGTACGGGGTCCCGCTATTGGTGATGAATGGATTGCTTGTGACGATCACTTACTTG CATCACACCCATCTTTTCGCTCCCGCATTATGACTCGTCGGAGTGGGAGTGGATGA GAGGTGCGCTAGCGACTGTGGATAGAGACTACGGGTTCCCGCTGAATAAGGTGAT GCATCATATTACGGATACTCACGTGGTGCACCATTGTGTTCTCGATGATTCTCATT ACCATGCGACGGAGGCTACAAATGCGATTAGGCCGATTTTGGGTGAATATTATCA AGTTGATCCGACTCCGTTTGTCAAGGCGTTGTGGAGGGAGATGACGCACTGTGTTT ACGTTGAGGCCGATGAGAAGAAACGAGGTGTGTTCTGGTATAAAACCAAGCTAT GA</p>
<i>FAD2b-2*</i>	<p>ATGGGTGCTGGCGGAAGAATGGCCGTGCCTCCATCGAACAAGGCGGACTCCGAA ACCTTTAAGCGGTCTCCTTACTCAAAACCTCCCTTCACTCTTGGTGAGATCAAGAA AGCCGTCCCTCCACACTGCTTCAAAAGGTCCATCCCCCGCTCGTTCTCCTACGTGG CTTATGACCTCACCATAGCCGCCATCTTCTACTACATCGCCACCACTTACATCCAC CTCCTCCCCCAATCCTCTCTCCTACGTGGCGTGGCCGATCTACTGGGCCTGCCAAG GCTGCGTCTCACTGGTGTCTGGGTCTAGCCACGAATGCGGTCAACATGCCTTC AGCGACTACCAATGGCTCGACGACTTGGTCGGCTTTGTCTCCACTCATGCCTCAT GGTACCCTACTTCTCGTGGAAGCACAGCCACCGTCGCCACCACTCCAATACTGGG TCCCTCGAACGAGACGAGGTTTTTGTCCCAAGCAGAAATCAGCCATTGGCTGGC ACTCAAAGTACCTCAACAACCCACCTGGCCGTGTGCTCACACTTGCAGTCACTCT CACTCTCGGCTGGCCTTTGTACTTGGCATTCAACGTCTCTGGAAGGCCGTACGACC GGTTCGCTGCCATTACGATCCTAAATCCCCCATCTACAACGATCAGCGAGCGAA CGGAGATATTCTTCTCCGATGCTGGCATCCTTGCTGTGAGCTTTGCGCTCTACAAG CTTGCTGTGCGCAAGGGACTGGCTTGGGTGGTTTGTGTCTACGGAGTTCCACTCCT TGTAGTGAATGGATTCTTGTCTTGATCACTTTCTTGCAGCACACCCACCCATCATT GCCGCACTACAAATCCTCCGAATGGGACTGGCTGAGAGGTGCTCTGGCGACCATG GACAGAGACTACGGGTTTCTGAACACGGTGTTCATAACATCACGGATACCCACG TGGCGCACCACTGTTCTCGACGATGCCTCATTACCATGCAATGGAAGCTACAAA GGCGATCAAGCCGGTATTGGGAGAGTACTACCAATTCGACGGGACTCCATTTCATC AAGGCGATGTGGAGGGAGGCTAAGGAGTGTGTTTATGTCGAGCCCCGACGAAGGT GACCAGAACAAGGCGTGTCTGGTACAACAACAAGCTGTGA</p>
<i>FAD2c-1*</i>	<p>ATGTTCTCATCCTCTGCCAGCTAAAAAATGCCGGCGCCGCCTTCATCATCCAACA CGACCATGAAGCGATCGCCTCTCTCAAAGCGCCGTACACCGTCTCCGACGTGAG TCCAACCATTCACCACTGCTTCAAAGGTCCCTCCTCCGATCATTCTCCCTAC CTAACCTACGACCTCACCATCATCACAATCCTCTACCAAGTCGCCACCACTTACTT CCACCTCCTCCGGCTCCCTCGCATCCTACGTGGCATGGCCGGCCTACTTCGGGGCC GCCAAGGCTACTTCTTCGTCGCTGTATGGATGGTGGCCACGGGGTGTGGCCATC ACGCCTTCCAGCGACCAGCACTGGCTGGAAGACTCGTCGGATTATCCTCCACTC AGCCCCCTCTTTCACCTTACTTCTCATGGAAGCACAGCCACCGTCGCCACCATGCC AACACGAGCTCCCTCGAACGTGACGAGGTGTTTCGTCCCTAAACCCAAGTCCAAGC TGAGCTGGCACTTCAAGTTCTTCAACAACCCGCCTGGCCGCGTCTGCAGTTGGC ATTTGCTCTGCTTCTTGATGGCTCTCTATTTGGCGATCAACATCGCCGGAAGGC CGTACGAGAAATTTCGCTAGCCACTTCGATCCGAGAAGCCCTATCTACAACGATCG AGAGCGGATCGAGATATTGCGATCCGATGTTGGCGTGCTCTGCATGTGGTTCGCG CTGTATAAAACTTGCTCTGGTGAACGGAGTTGGTTGGGTGTTTGTGTGTACGGGA TCCCGCTGTTGGTGATGAATGGATGGGTGCTTACGATCACTTACTTGCATCACACG CATATAGCGTTGCCGCGGTATGATTTCGTCCGAATGGGATTGGTTGAGGGTGCATTG</p>

	<p> GCACTGTGGATAGGGACTATGGTGTGTTTGAACAAGGTGTTTCATAACATCACGGA TACTCATGTGGCGCACCATTGTTTTTCGGCGATGCCTCATTACCATGCGGCGGAAG CGACCAGGCGATCAAGCCCGTTTTGGGCGAGTATTATCGGTGTGACCGGACTCCT ATTATCAAGGCGTTATGGAGGGAGTTAAGCACTGTATTTATGTCGAGTCAGATG AGGATAAAGGCGTGTTTTGGTTCAATGACAAGTTGTAA </p>
<i>FAD3a</i>	<p> ATGAGCCCTCCAACTCAATGAGTCCCGCCACCAACGGCAGCACCAATGGTGTG GCTATCAATGGGGCGAAGAAGCTACTCGATTTCGACCCGAGTGCTGCTCCCCCTT TCAAGATTGCAGACATCCGTGCTGCAATCCCGCCGCATTGTTGGGTGAAGAACCC CTGGAGGTCCTCAGCTACGTCTGAGAGACCTCCTGGTCATCCTCAGCTTCGCCG TTGCGGCGACAAAGCTGGACAGCTGGACTGTCTGGCCTCTCTACTGGATTGCTCA AGGAACCATGTTCTGGGCAGTCTTTGTTCTTGGACATGATTGGTAATTTACATGA TCTTTCTGGTAATGTGGGTTTTCTTTTCTTATTGAAAAAGATTAAACTTTTTATCTG GGCTGTTGCATGCAGTGGCCATGGGAGCTTCTCAGACAGTTGGTTGTTGAACAAC GTGATGGGACATATACTCCATTCTCAATCCTCGTACCTTACCATGGATGGTATTG TAACTATTGTTTCGATATTCGATTATGATTACTGTTCTTTCAGATGAAGAATCTGTAC CCTAATTGTTTTTGTACCAGGAGAATTAGCCACAAGACCCATCACCAGAATCA CGGCAATGTGGAGAAAGATGAATCCTGGGTTCCAGTAAGTTGACATGCAGTTTGC TCTAAAATGCAGAGTCCTCTGTTTTTGTGTGTTCTTGTGCTTTAATGACGATGATA ATGAAATTGAAATTTGTAATAGCTGCCGGAGAAGGTGTACAAGAGCTTGGATACC GGCACCAAGTTCATGAGGTTACCATCCCTCTCCCAATGTTTGCATCTCTATCTA CTTGGTAAGTAAACAGACTGACTCCAAAGTAGGAATAATGACAATTTTGGACCC GACCTGGTTTGGTTGACTCGGGTCGATATGTTTCGGGTGGGTAATTACCCGATCTG GCGATGGGTGTGCGGCGGACATTGTCTTGCTCGTGGTCCACCCCGCTCCCAACCC GCCCCATTCTTGACGAAAAAGATTTCCGAATATGTATCAACAGAAAAATCTAGTT TTTATGTTACTAGTTTTCTGTATTTCCATGTTTTTTCCTCAATTCTAGCCGGAATTTG AATTCAAACTGAAATCGGGTAATTCGTCCTATAACAAAACGGAATTGGGCAGCC GTAATTAGTTGAACTAGACCTCAATTTTGGCGGAATTGGACCCGGCCATTTTTTA CGTTTGCAAAACGGAACGTTTTTCTTTTGTAAGCGCAAAATGAAAAACGTAT CTAGTGGAATTATTGGACCCATCTAGAATGGGTCCAATTCACCCCAATTTCCGGCT CCAATTCATGCCCGGAAAAACACTACTGTCATGCATTTTAATCTTGATGGTTTTAC CCCAATGGATGCAGCGATGGATCCGGACGATTTTTAAATATTATCGGGTTAAAT TAAAAAATATCTTAAACTATAAGAAAAAAATAACCAATTTTAAAGAATAAAAG AACTGGACACATATGACGGGTGTCGTGGATGGATGTACTTGTCCCGCTCTATTAA AGGCTGATAATATACAGGTCAACGGTGAATGAAGGTTAGATGCGCTATTGGATTT GAATCCGATATGAAATGATAATTTTGGACACGATCTGTTTTGGGTGGGTAATATTT GATCTAGGGATGGCTCGTGCTCCAAACCGCACCAAAACCGCCTAATTCTCGACCA AAAAGATTTTATGAATACATATCAACAGAAAAATCTAGTTTTTCATGTTACTAGTTT TATGTACAACAATATTAGGTGTCGTTTTCCAGCCTTTTTCTTCAATTCCGGCCGGA ATTCGCATTCAAACCGGAATTGGATGGAATCGGTATACCTCGTCACGGATGCATT GTCAATTCCTAGTTAGTTTCATGGTTTTGAAACCAATCAATCTATTCTATATGGTTT TGATTAACAGTGGAGGAGAAGTCCGGGGAAGAAAGGGTCGCATTTCAACCCATA CAGTGACCTGTTTCGCACCGAACGAGAGGACATCGGTCATGATTCGACATTGTGC TGGACAGCCATGGCCTTACTCCTCTGCTACTCATCGTTCATCTACGGCTTCCTTCCG GTCTTCAAAATCTACGGCGTCCCTTATCTAATATTTCGTGGCGTGGCTCGACATGGT GACCTACCTTACCACCACGGGTACGAGCAGAAGCTGCCGTGGTACAGAGGCAA AGAGTGGAGCTACCTACGTGGAGGGCTGACGACCGTCGATCGAGATTACGGGGT CATCAACAACATCCACCATGACATTGGCACCCATGTTATTACCATCTCTTCCCTC AAATGCCACACTATCACCTAGTCGAAGCGGTAAGGAGGTCTTGATTATTAACCTTA ATGTTTTTGTGTTATAATTTGAGTCCGATTCTGGAGTCAGGGGATTTCTTCTTGG ATCCGATCCAGGATCAAGCTGGTCCCTTGAATTTCTATATGATCTTATATTAATTA AGGATAATGTGGTCATATGTTTTTAAATATTTTGTACCATCATTTTCGATCACC GGAAAATGTCCTGAGCAGTTTTCCGGTCACTTTAACCTCCATTGACAAATTTTTTC ACCCACATGATCACCCTAGCCGGGTTACGTTTATTGAAAATTTTTATTTTTTTGAA </p>

	TTTTTTTTTCGATGACCAACTGTACAACCTTTGTATTGAAAGTTGTATGGATCATACA AATGTGTATGTACAAAAGTATATTCTAAGTACTATACTAAGCATTACTTAGTATTA CGTTTCTACAAACCTATAGAGAAATGCATACAATTTTGTATAGAACTTAGTATAC ACGTAGCTGTGAAATGTCAATTTCCCTCCGTATTTTCAGAGACAAGACATGATTTT TAGACTGGCAGATTTTTTTTTATCGGATAGATTTCTCCAACCTTCAGATTCCGACTGG ATTATTAACATATATTATTCATCAACTCTGACGTTTGATGTTGCATGTGACAGACTC AGGCAGCGAAGCACGTGCTGGGGAAGTACTACAGAGAACCGAAGAAATCAGGG CCTTTCCCATTCCACTTGTTTGGGTACTTGGTGAGGAGCCTGGGCGAGGATCACTA CGTTAGCGATACAGGCGACGTCGTTTTCTATCAATCTGACCCACATATTCCCAAGT TCCCTACCAGTGCCACCACCAAGTCCAAATCTAGCTGA
<i>FAD3b</i>	ATGAGCCCTCCAAACTCAATGAGTCCCACCACCAACGGCAATGGTGTGGCTATGA ATGGGGCGAAGAAGCAGCTCGATTTCGACCCGAGTGCTGCCCCCCTTTCAAGAT TGCAGACATCCGTGCTGCAATTCGCGCGCATTGCTGGGTGAAGAACCCCTGGAGG TCGCTCAGCTACGTCCTGAGAGACCTCCTTGTCATCCTCAGCTTCGCCGTTGCGGC GGCAAAGCTGGACAGCTGGACTTTCTGGCCTCTTTACTGGGTGCTCAAGGAACC ATGTTCTGGGCAGTCTTGTTCTTGACATGATTGGTAAACTAATTCACATTTTCT TTCTGGTAATGTGGGTTTTATTGAAAAAGATTAAAACCTTTTTATCTGGGTGTTGCA TGCAGTGGCCATGGGAGCTTCTCAGACATCTGGTTGTTGAACAATGTGATGGGAC ATATACTCCATTCTCAATCCTCGTACCTTACCATGGATGGTATTGTAACATATTGTT CAATATTAGATTATTGCTAGTTCTTCAGCTGAAGAATCCAAACCCTAATTTTCTTTT TCTGAATATTGACCAGGAGAATTAGCCACAAGACCCATCACCAGAATCACGGCA ATGTGGAGAAAGATGAATCCTGGGTTCCTGTAAGTTGACATGCAGTTTGCTGTAA AAATGCAGAGTGCTCTGTTTTTTGTGTTCTTGCTTTAATGGTGATAATAATGAA ATTGTTGAAATGTAACAGCTACCGGAGAAAGTGTACAAGAGCTTGATACCAGC ACTAAGTTCATGAGGTTACCATTCCTCTCCCAATGTTTGCTTATCCTATCTACTTG GTAAGTAAAGAGACTGATAAGACTCCAAAGTAGGAATTAATGACAATTTTGGAC CCGAGCTTCCGACTCGGGTCGATTTATTTCCGGTGGGTACTTACCCGATGCGGCGG ACATTGTTTTGCTCGTGCTCCACCTCGCTCCCAACCCGCCCATTTCTTGACGAAAA AGATTACGGAATATGTATCAACAGAAATATCTAGTTTTATGTTACTAGTTTTCTGT ATTTCCGTGTTTTTCCCCTCAATTCCGTCAGAAATTTGAATCAAACCTGACATTGGG TAATTCGTCCATAAGAGAACGGAATTGGGAAGCCGTAATTAGTTGGAATTAGAC CTCGATTTCCGGCGGAATTGGACCCGGCCATTTTTCCGCGTCCGGAAAAGCGTTTCCA GTGGAGTTAGACGCCCCATCTAGAATGGGTCCAATTCCACCCCAATTTCCGGGGCTA CCTATTTTTAGTGACATGCATTTTAGATCTTTTACGGTCTTACCCCGATGGATATT CTTGTCGCGCTCTATTA AAAACTGACAATATACAGGTTGATTGTGAATGAAGATT AGGTGCTGCACGCTCTTCGTGTTCCAACCCGCACCCAAACCGCCCCATTCTCGAC CGAAAAGATTTTATGAATACATATCTACAGAAAAATCTAGTTGTCATGTCACTAG TTTAATGTACAACAGTATAGGTGTCGTTTTCCGCGTCTTTTCTTCAATTCCGGCTG GAATTTCGATTCAAACAGGAATTGGATGGAATTGGTCCCGGATGCATAGTCATTT CCCAGGCAGTTTCATGGTTTTATAACCAATCAATCTAATCTTATGCTTTTGATAAA CAGTGGACGAGAAGTCCGGGGAAGAAAGGGTCCGATTTCAACCCATACAGCGAC CTATTTCGCACCAAACGAGAGGGCAGCGGTCTTGATTCAACATTGTGCTGGACAG CCATGGCCTTACTCCTCTGCTACTCATCGTTTCATATACGGCTTCGCTCCGGTCTCA AAATCTACGGCGTACCTTATCTGATATTCGTGGCATGGCTCGACATGGTGACCTAC CTTCATCACCACGGGTACGAGCAGAAGCTGCCGTGGTACAGAGGCAAAGAATGG AGCTACCTACGTGGAGGGCTGACGACCGTTGATCGAGATTACGGGGTCATCAACA ACATCCACCATGACATTGGCACCCATGTCATTACCATCTCTTCCCTCAAATGCCA CACTATCACCTTGTGGAAGCGGTAAACAATTTGATTATTAATTTACTGTTTTTGTG TTATAATTTGAGTCGGGAGATTTCTTCTCTAAATCCGATCCCTGGTCAATCTTGGC CCTTGAATCTTCATATAATCTAAAAATCTAGATTAATCAGGAACAATATGATCAT GTTGTTTTAACTAATTTTGTGGACCATAACCTACCGCCAACTGATGGACCACCGT CTCTGGTTACCGGACCCATCATTTCCGGTTACCAAGAAGTTTCTCGATCAGTTTTTC CGTTACTTTGACCTGCGTTGAGGAAAATTCTTTCACCCACGTAAACACTGTCGTC

	<p> AACCTTTACGTTTCTGGAAGTTTTTCCGATGATTGGCCGTACAATTTTGTACGAAG AGTTGTACGGATCATATAAATGTGTATAAGTTTCTAGAAATCCGTAAGTAAATAT ATACATATTTGACTTTTGTATAAAGTGTAATACTAAATACTATACTAAGTGCTGTA CTCAGTATGATACTTAGTACACACATTTGTATGACTATGAAATGTCAATTTTGCCC TTATATTCTCAGCCGTTAGATCTAAGACACAGTTTTTATACGGCTGAAATTTGTGG GGGCTTTGTAGATCGGATCCATAAGTCATTTCTTGGCTCAAGATTCGGACTCGATT ATTAACATATATTATTCATCAACTCTGACGTTTGATGTTGCATGTGACAGACTCAGG CAGCGAAGCACGTGCTGGGGAAGTACTACAGAGAGCCGAAGAAATCAGGGCCTT TCCCATTCCACTTGTTTGGGTACTTGGTAAGGAGCCTGGGCGAGGATCACTACGTT AGCGACACAGGCGACGTCGTTTTCTATCAGTCTGACCCACATATTCCCAAGTTCCG TACCAGCAGTGCCACCACCAAGTCCAAATCCAGCTGA </p>
<i>FAD3c-1</i>	<p> ATGAGCCCTCCAACTCCATGGGAATGGAAGCTGCTCATCCTACCGGCAACGGC AATGGCGTCGCAGTCATGAACGGCGCCTCCGCTAACAAACCCGATTTTCGATCCCA GCGAGGCTCCTCCCTTCAAGATTGCCGACATCCGAGCCGCCATCCCCCGCATTG CTGGGTGAAGAATCCATGGAGGTCTCTTAGCTACGTCCTTAGGGACGCCGTCGTC ATTCTCGCATTTCGCAGCTGCCGCCCTCAAGCTCGACCTCTGGGCTGTTTGGCCGCT CTACTGGATCGCTCAGGGCACCATGTTTTGGGCTGTCTTCGTTCTCGGCCACGATT GGTAAGAGGAGGAGGTTTTTTTTTAAATTTCAATCCGATGCTGTTTTGTTATATTA TTGGTTGATATGATATATAAGATTAACCCTAGAGAAAAGTGAAAAGCATCCGCCA TTGTTGAATGAATTGGAATTGGATGGTGACGCGGCCATGGGAGTTTCTCGGATAG CTGGTGGCTGAACAATGTGGTGGGGCATATTCTGCATTCTGCAATCCTTGTGCCTT ACCATGGATGGTAAGAAAAGAATATGAACAGATCCTTTATCCTTACAACGTGAAA ATGTAGGTCATTTCAGCTGAACTAAAGTCACATTCTGTGTTGTTAATTGATTGAAC AGGAGAATTAGCCACAAAACACACCACCAGAATCATGGCAATGTTGAGAAAGAT GAATCATGGGTTCGGTGAGTTTTATTTCAATTTTTCTCTCGTCAATTGGCATCAGT TTGTTCTGTTTCAATGCTTGATATGAATTGGGTGATATAATGCAGCTGCCGGAGAA AGTATACAAGACCCTGGACACAAGCACCAAAATTCATGAGGTTCACTATCCCTCTC CCAATGTTTGCTTATCCTATCTACTTGGTAAGAACCACCCACATTCTTACATCCTT GCATGTTGTGATTGGTTTCTGGTTGGATTGGATTGAGATTGGGGAATTGATTGT GTGCCTTTGAAATGAATGAATGGTTACAGTGGACGAGGAGCCCAGGGAAGAAAG GGTCCCATTTCACCCCTACAGTGACCTGTTTGCCCCACAAGAAAGGAAATCAGT CTTAATCTCTACCATCTCTTGGATTTCATGGTCCTAATCCTCCTCTACGCCTCCTT CCTTTTGGTTTCCTCACTGTCTTCAAAGTCTATACCGTCCCTTACCTGGTAAAACT ACTATCTCCAAATTCAACAATCTGTAAGCTTCATTTCAATTTGCTTTGGCTCCTGAGT TCCCTGTCAAGTTTCTCCTAGCAGTGTAACCTTGTTATTTGATAACTTTGTGCCATCT CACTATTGGCTGCATTTTACTATAATCAAAGTCTACATACGTTATTGCAACTTGTT AATCCTTGGTACGAGGAATCCAATGAATAGGATGGTGATTAGCACAAACAAGGC TGAAACTTTGAGCAATTTTGCAAGATATTTGTGGCGTGGCTGGACATGGTGACATAC CTGCACCACCACGGGCACGAAGAGAAGCTGCCGTGGTACAGAGGTCAAGAGTGG AGCTACCTACGTGGAGGGCTGACAACCGTAGATAGAGATTACGGGATTATCAAC AACATCCACCACGACATTGGCACTCACGTGATTACCATCTGTTCCTCCTCAAATCCC TCACTACCATCTCGTAGAAGCGGTACAGTAGTAGTAAACAAAACCCCATATTATT ATTACTTACTGCAGTGATTTCTGACTCTATATTATTAATATCACTTCTGGGTTTTT GGCCGCGGGGGGGGGGGGGGTTGTTTGGATCTTTCGAACTTATAATAATATGATA TTATTATTAAATGGTGGCAGACAAAGGCAGCAAAGTGGTGCTTGGGAAGTACT ACAGAGAGCCAAAGAAATCAGGACCATTCCCATTCACCTTGTTTCGACAACCTTAGT GAGAAGCCTTGGCGAAGATCACTATGTTAGTGATGCAGGGGATGTCGTGTTCTAT CAGTCTGACCCAGAAATCTTCAAGTTTTCCAAGTCCAAGTCAGCCTAA </p>
<i>FAD3c-2</i>	<p> ATGGGAATGGAAGCTGCTCATCCTACCGGCAACGGCAATGGCGTCGCCGTCATGA ATGGCTCCGCCGCTAACAAACCCGATTTTCGATCCCAGCGAGGCTCCTCCGTTCAA GATTGCCGACATCCGAGCCGCCATCCCTCCGCATTGCTGGGTGAAGAATCCATGG AGGTCACTCAGTTACGTCCTTAGGGATGCCGTTGTCATTCTCGCATTCCGCCGCTGC CGCACTCAAGCTCGACCTCTGGGCTGTTTGGCCGCTCTACTGGATCGCTCAGGGC </p>

	<p> ACCATGTTTTGGGCTGTCTTCGTTCTCGGCCACGATTGGTAAGAGGAGGAGTTGTT TTTTTTAAATATTTATCCGATGCTGTTTTGTTATATTATTGGTTGATATGTAAGATTA ACCCTAGAAAAAAGTGGAACCGTCCGCCATTGTTGAATTGAATTGGAATTGGAT GGTGCA GCGGCCATGGGAGTTTCTCGGATAGCTGGTTGCTGAACAATGTGGTGGG GCATATCCTGCATTCTGCAATCCTTGTACCTTACCATGGATGGTAAGAAAAGAAT ATGAACAGATCCTTTATCCTTGAAACGGTAAAAATGTAGGTTATTCAGCTGAAACA AAAGTGACATCCTGTGTTGTTCTTTATTGATTGAACAGGAGAATTAGTCACAAAA CTCATCACCAGAATCATGGCAATGTTGAGAAAGATGAATCATGGGTCCCGTGCG TTTTATTCTCTTCCTTACTTGTCAATTTGCCATCATTGTCTGTTTCACTGATTGAC ATGAATTGGGTGGGAAAATGCAGCTGCCAGAGAAAGTGTACAAGACTCTGGACA CAAGCACAAAATTCATGAGGTTCACTATCCCTCTCCCAATGTTTGCTTATCCTATC TACTTGGTAAGAACCACCCTACATTCTCACATCCTTGCATGTTGTGTATTGGTTTCT GGTTGGATTGGATTGAGATTGGGAAATTGATTGTGTGCATATGAAATGAATGA ATGGTTACAGTGGACAAGAAGCCCAGGGAAGAAAGGGTCCCATTTCATCCCTA CAGTGACCTGTTTGCCCCACAGGAAAGGAAATCAGTCTTAATCTCTACCATCTCTT GGATTCCATGGTCCTAATCCTCCTCTACGCCTCCTTCTATTTGGCTTCCTCACAG TCTTCAAAGTCTATACCGTCCCTTACCTGGTAAAACTCCACCCTTGGTTTACTAG CTTCAAATTCAACAATCTATCAGCTTCATTTCAATTTGCTTTGGCTCCTAAGTCCCT CTTAAGTTTCTCGTAGCAGAGTAACTTGTCTATTTGTAACTTTGTGCCATCTCCCT ATTGGGTGCATTTCACTATAATCAAACCTGCTACATGCATACTGGAATGTCCATATT GTAATTTGCTATAATCCTTGGTACGAGAATCCAATGAATAGGATGGTGATTAGAA CAAGAAAGACTGAAACTTTGAGCAAATTTGCA GATATTTGTGGCGTGGCTGGAC ATGGTGACATACCTGCACCACCACGGGCACGAAGAGAAGCTGCCGTGGTACAGA GGCAAAGAGTGGAGCTACCTACGTGGAGGGCTGACAACCGTAGATAGAGATTAC GGGATTATCAACAACATCCACCACGACATTGGCACTCACGTGATTACCCACCTCT TCCCTCAAATCCCTCACTACCATCTCTGAGAAAGCGGTACTGTAGTAAACAAAACC CATATTATTACTTACTGCAGTGATTCTGACTATGTTATTATTAATATCAGTT CTGGGTTTTGGCCTTTGGGGGGGTTGGTTTGGATCTTTGGCACTTATAATATTATTA AAATGGTGGCAGACAAAGGCAGCAAAGTCGGTGCTTGGGAAGTACTACAGAGA GCCAAAGAAATCAGGGCCATTCCCATTCACCTTGTTCGACAACCTTAGTGAGAAGC CTTGCGGAAGATCACTATGTTAGTGATGCAGGGGATGTCGTGTTCTATCAGTCTGA CCCAGACATCTTCAAGTTTCCAAGTCCAAGTCAGCCTAA </p>
FAD3d-1	<p> ATGGCGAGCTGGGTTCTATCAGAATGCGGCATAAAGCCACTCCCTTCCGCCTTCC CTAAGCCCAGAACCGGAGCGCTTTCCCGAAATACCCTCCCCAAGCTCAGGTATTT ACCCCCGAGGAGCAATCTCTCCGCCGTGCCGACGGCGGCCTCAGATCTAAGC CTTAACCTACCTAAATTATCCTCCGTAGAGAAGAAAAAGCCGCTTTTGGGACAGG TGAGAGTTACTGCTCCGTTCAAGGTCGCTCCGGTGAAGGAGGAAGACGGAGAAG GAGAGTCCAATTTGACCCAGGAGCGCCGCCGCTTCAATTTGGCCGACATTCC AGCTGCTATACCCAAGCATTGCTGGGTAAAGATCCATGGAGGTCAATGGCTTAC GTGGCGAGGGACGTGGCCGTTGTTCTCGGATTGGCAGCTGCCGCAGCTTATCTGA ACAATTGGATCGTTTGGCCGCTGTATTGGGCGGCTCAGGGGACCATGTTCTGGGCT CTCTTTGTTCTTGGCCATGACTGGTGAGTAAAGTTGTTAACTTTCTCTTTGGTCTTTT ATGCTAATCTTTGTAATAATGGAATAATTGAAGAAAAATTCTCATGTTTGGCAGTG GACATGGGAGCTTTTCAAGCAATCACAAGCTGAACAGTGTAGTTGGACACATTCT CCATTCTTCAATTCTTGTGCCTTACCATGGATGGTAATAAGCTCTCTGCTTTCCT CTGCCATCTGTCATTTTGTCTTCAATTTTGAAGCAATTTGAAACAAATTTGTAT CAATGTCTTTACAGGAGAATTAGCCATAGGACGCATCATCAGAACCATGGACATG TTGAGAACGATGAGTCATGGCATCCTGTGAGTCTTTGTTTCTAAATCTTATCTATA GGATTGATTCAGATGCTGATGTACTAATTTCTGTGACTTTTTCTGTTTGTCTGTT CTTGAAGTTGTCTGAGAAGATATTGAGGAGCTTGGATGCTACAACCTCGAAGTATG AGGTTACATTGCCTTTCCCATGCTTGCTTATCCTTTCTATCTGGTGAGTTTGTATC TACAAGAAAGTTCCTTTACAAAATGTGGATTTAGTTAACAGAAGCTAAAAGGGTT CTTCTCTTGTTCGTAATGCAAGTGAACCGGAGTCCTGGAAAAAAGGGGTCTC </p>

	<p> ATTTCGACCCGAGTAGTGATTTGTTTGTGGCGAGTGAGAAGAAAGATGTGATCAC TTCCACTGTTTGTGGACAGCTATGGCTGCTTTGCTCGCAGGCTTGCCTTTGTAAT GGGTCCAATTCAGATGATCAAGCTATACGGAATTCCATATTGGGTATAGACAACA TCTTTTGCCTTATCTTGCAAACCTTGTTGTTTCAACTCTCAACCAACCACTCTGCCTC TTGGATGTTTTTGTAGGGATTTGTTATGTGGTTGGATTTTGTAACTTACTTGCATCA CCATGGTCACGACGATAAGCTTCCTTGGTACCGCGGCAAGGTAATCCATGTTCTTT CCTCCTGTGTCCATCTATCTGGTCTTTCATGTTGAATCACTATATCCTAAAATCTTT TCAATGTATAATTATTGATTCAAACCAAATGAAAAGTCAATTGTTTTGAGATGTCT TTCTAGACTTTCAGTGAGATTTTGTGAACTTATGCTTGGAACTTGGAAACAGGAAT GGAGTTACTTGAGAGGAGGGTTAACCACCATTGATAGAGACTATGGATGGATCA ACAACATCCACCACGATATTGGAACCCATGTTATTACCATCTCTTCCCACAAATC CCTCACTACCACTTGATTGAAGCAAGTAAGCAATAACTTTCCTTTTTCCCTTTAGTTC CATATGCAATCTCTTCAATGGGGACACTGAGAAAAAGAAACAAACTTTGACCTG AAAACAAATATCATGATGTTTCAGACGGAAGCTGCAAAGCCAGTGCTTGGGAAG TACTACAAGGAACCAGCAAAATCAAAGCCGCTCCCTTTCCACCTAATCGGAGACT TGATAAAGAGCTTGAAGAGAGACCATTATGTTAGTGACACCGGAGATGTCGTCTA CTATCAAACCTGACCCTGAACTCCAAAGACCCTCATCATCATCATGA </p>
FAD3d-2	<p> ATGGCGAGCTGGGTTCTATCAGAATGCGGCATAAAGCCACTCCCTTCCGCCTTCC CCAAGCCCAGAACCGGAGCGCTTTCCCGGAATACCCTCCCCAAGCTCAGGTATTT ACCCCCCAGGAGCAATCTCTCCGCCGCTGCCGACGGTGGCGCCTCAGATCTAAGC CTTAACCTACCTAAATTATCCTCCGTAGAGAAGAAAAGGCCGCTTTTGGGGCAGG TGAGAGTTACTGCTCCGTTCAAGGTCGCTCCGGTGAAGGAGGAAGACGGAGGAG GAGAGTCCAATTTGACCCAGGAGCGCCGCCGCGTTCAATTTGGCCGACATTGCG AGCTGCTATACCTAAGCATTGCTGGGTAAAGGATCCATGGAGGTCAATGGCCTAT GTGGCGAGAGACGTGGCTGTTGTTCTCGGATTGGCAGCTGCCGCAGCTTTTCTGAA CAATTGGATTGTTTGGCCGCTGTATTGGGCGGCTCAGGGGACTATGTTCTGGGCTC TCTTTGTTCTTGGCCATGACTGGTGAGTGAAAATTCTCAATTTTCGCTACTGTGATT ACTAATCTGATGTAAAAAGTGGGTGGAAAGTTCTCATTTTTCCCTTTTGCAGTGGAC ATGGGAGCTTTTCAAGCAATCACAAGCTGAACAGTGTAAGTTGGACACATTCTGCA TTCTTCAATTCTTGTCCTTACCATGGATGGTAAAAAGCTCTCTGCTTTCCTCTGCT CATCCGCCATTTTGTCTTCAAGTTTGAAGCAATTGAAAAAATAATTGTATCAATG TCTTTACAGGAGAATTAGCCATAGGACGCATCATCAGAACCACGGCCACGTTGAG AACGATGAGTCATGGCATCCTGTGAGTCTTTGTATCTAAATCTTAGCCATAGGGTT GATTCAGATGCCGATGTACTAATTTCTGTGACTTTGTTTTGTTTCTGTTCTTGAAGTT GTCTGAGAAGATATTAGGAGCTTGGATGCTACAACCTCGAAGTATGAGGTTTACA TTGCCTTTCCCCATGCTTGCTTATCCTTTCTATCTGGTGAGTTTGTAGCTGCAAGTA AGTTTCTTTACAAAATATGGATTTAGTTAACGAAGCTAAAAGGGTTATTTCTCCTA ATGCACTGGAACAGGAGTCCTGGGAAAAAGGGTCTCATTTGACCCGAGTAGC GATTTGTTTGTGGCGAGTGAGAAGAAAGATGTGATCACTTCCACTGTTTGTGGAC AGCCATGGCTGCTTTGCTCGCAGGCTTGCTTTTGTAAATGGGTCCAATTCAGATGA TCAAGCTCTACGGAATTCCATATTGGGTATAGACAACATCTTTTGCCTTATCTTAC AGACTTGTTGTTTCAACTCTCAACCAACCACTCTGCCTCTTTGATGTTTTTGTAGGG ATTTGTTATGTGGTTGGATTTTCGTAACCTTACTTGCATCACCATGGTCACGACGATA AGCTTCCTTGGTACCGCGGCAAGGTAATCAATGTTCTTTGCTCCTGCGTCTATCTAT CTAGTCTTTCATGTTTAATCACTATATCCTAAAATCTTTTCAATGTATAATTCTTGA TTCAAACCCGATGAAAAGTCAATTGCTTTGAGATGTCTTTCTAGGCTTTCAGTGAC ATTTTGTGAACTTGTGCTTGGAACTTGGAAACAGGAATGGAATTACTTGAGAGGA GGGCTAACCACCATTGATAGAGACTATGGATGGATCAACAACATCCACCACGAT ATTGGAACCCATGTCATTACCATCTCTTCCCACAAATCCCTCACTACCACTTGAT TGAAGCAAGTAAGCACTAACGTCCCATTTTCCCTTTAGTTCCATACGCAATCTCTTC AATGGGGAACTGAGAAAAAGAAACGAACCTTTGACCTGAAAACAAATATCATG ATATTTGACGCGGAAGCTGCAAAGCCAGTGCTCGGGAAGTACTACAAGGAACCG GCGAAATCAAAGCCGCTCCCTTTCCACCTAATCGGAGACTTGATAAAGAGCTTGA </p>

	AGAGAGACCATTATGTTAGTGACACCGGAGATGTCGTGTACTATCAAACCGACCC CGAACTCCAAAGACCCCTCATCATCATGA
SAD2-1	ATGGCTCTCAAGCTCAACCCAGTCACCACCTTCCCTTCAACACGCTCCCTCAACA ACTTCTCCTCCAGATCTCCTCGCACCTTTCTCATGGCTGCTTCCACTTCAATTCCA CCTCCACCAAGTAAGCATCTCCTCCTCCTCGGAATCTCCGCCGATTTCTTTAAGC GATTGATCGTAGATAAAATTTGTCGGTTGCTTACCGTTCATCAAAATCTGCACGGTT CGTTTCTTCTTCTGCGCCTAGATTGCATTATGTCATTGTTTCGTTTTCCGATTTGACTG ACCGACATAAATCAATTCCTTTGTGTTTCACGATTCTGGGTTTTGCGCTGTAATTGA TTGTCAGTGTTCACACAGGTTTCCCCTTCTCCTCCTCCGTCCATCAAATGCATGTTA TTACCATTTCAATTTCAGTTTCCTTCTCTGAAATATCCGTCTCTGGGAAAATAAGTC TCTGTATCTACTATCCTATCAGCTTGTTTAGGAGAGGTTTCGATATTCTGTTTACATAA ACCAATTGGCTTACAGTCCTGAACGTTCTAAATGTTGGTCGCGGTGATAATAGGT TCTCAAAGAGGTTTGTCTATGTTGTTGGCAAAATCTTGTTTCTGTGAATCATGTT TAAGGTCCTTGGAAGAATGACTAATGAGCTATGACATGATTACGACGTAGTAGTT ATTGAACTGCTGATAATTCAATATAGGGGTAACTTTGTTGATTGTTTGGTCACAGG GAGGCTGAGAAGCTAAAGAAGTCACATGGACCACCAAAAGAGGTGCATATGCA AGTGACCCATTCCATGCCCCACAGAAGCTGGAGATATTTAAGTCTCTGGAAGGT TGGGCTGAGGATGTTCTATTACCGCACCTGAAGCCAGTTGAGAAATGCTGGCAGC CACAGGATTTCTGCCCCGAACCTGAGTCGGATGGGTTTCGAGGAGCAAGTGAAGG AGCTCAGGGCAAGGGCCAAAGAAGTCCCCGATGACTATTTTGTGTGCTGGTTGG GGATATGATCACCGAAGAAGCTCTGCCGACTTACCAGACAATGCTCAACACCCTT GACGGGGTGAGGGACGAGACTGGAGCCAGCCTTACGCCGTGGGCAATCTGGACA AGGGCGTGGACCGCTGAAGAGAATAGGCACGGTGACCTTCTCAACAAGTATCTA TACCTCTCTGGAAGGGTGGACATGAGGCAAATTGAAAAGACCATTTCAGTATCTCA TCGGCTCTGGAATGGTATGTAATCACATACTTCATCCTTTTCTATTAATCTTTGCGT GAACAAAATTCACTACACTGGTAGCAGCTGAACTTTAGATGATTTTTTTTACTGC CTAGCTTCTATGAAACAAAACCACGTAAGTCAAATAGGGTTGACAATGAGTTCAA GTGGCAAAATTTTTCTTATATACCAACTTCGAACCACCTTATATGACATACCAACT CCTAGTTTCGGTTAAAATTCCTCCGTCGAAGATATAATACTTGGATTGGTTAAATGA ATTGTGAAAGGATACACGTGATGTGGTCTGGAATTAATTTGTTTGAATGATCAGTT GGGTTTCGGGGCGACAACCTGTGAACTGGAACCACCCTAAGTAAATTTTCTTTCTGTC CTACAAATTTGAGGTTCTCCTTGATCACCTTAGTCCATCTTAGGTTTGCCCGTTAGT AAGATCTGCATTTAGCAGTTTGTCTGGTATTTGATATCACTAGTATCTTTGTTTGA TTCCCTAGCATCTCTGAAACCATCGGACAAGTAGGTGGTTTAGGACAAATTTGGTT CATTGCGGCATTTTTTGTGTTGTATCGCCGTATCATCTGGAAGAAGCAGACAGTTTT GCAAAGTGGCATCAAGCTCAAGAAAGCAACGGCTAGAAGAAGTTCTACATCTGA TGCTTTCCTTTTGTCTTTGTGTGCTTTTTGGACTTTGTTCTTTTTCTGTAGGATC CAAAAACAGAAAACAACCCCTACCTCGGTTTCATCTACACCTCATTCCAAGAGAG GGCAACGTTTCATCTCCACGGAAACACAGCCAGACTCGCCAAGGACCATGGGGA CATGAAGCTGGCGCAGATCTGCGGGATCATCGCAGCAGACGAGAAACGGCACGA AACCGCATACACCAAGATCGTCGAGAAGCTCTTCGAGATCGACCCTGACGGTAC AGTGCTGGCACTGGCGGACATGATGAGGAAGAAGATATCGATGCCCGCCCACTT GATGTACGATGGAGAAGACGACAACCTCTTCGACAATTACTCGTCAGTCGCTCAA CGCATCGGGGTGTATACTGCCAAGGATTATGCCGATATCCTGGAGTTCCTGGTGG GGAGGTGGAAAGTGGATGCTTTTACGGGGCTTTCGGGGGAAGGGAACAAAGCTC AGGATTTTGTCTGCGGGCTTCCTGCGAGGATTGCAAAGTTGGAGGAGAGGGCTGC GGGGAGGGCAAAGCAAACGTCGAAATCTGTCCCGTTCAGCTGGATCTTCAGCAG AGAATTGGTACTCTAA
SAD2-2	ATGGCTCTCAAGCTCAACCCAGTCACCACCTTCCCTTCGACCCGCTCCCTCAACA ACTTCTCCTCCAGATCTCCTCGCACCTTTCTCATGGCTGCTTCCACTTCAATTCCA CTTCCACCAAGTAAGTTCCCGTCACCATCTCCTCTTCCTCGGAATCTCCGCCGTTT ATTTAAGCGATTGATCGTAGAAAATCTGTGCGTTGCTTAGCGTTCATTCAAATCTG CGCGGTTTCGTTTCTTTTCTTCTTCAGACTGCCTCGTCTGCATTATGTTATTGTTG

	<p> TTTTCCGATTTGACTAACCTACATAATCAATTCCTTTGTGTTTCACGAGTCTGGATTT TGCGCTGTAATTGATTGTCAGCGTTTGCACAGGTTTCCATTTCTCCACCTCCGTCCA TCAAATGCATGTTATTACCTACCAATTTACGCGTCTTTCTCTGGAAATTTCTGTCTC TGTATCTACTATCCTATTAGCTTGTTTGAGAGAGGTTCAATATTGGTTTGCATGAAC CAAGTGGCTTACAATCCTTCAACGTTCTAAATGTTGGTCGCAGTAACAATAGGTTTC TCAAAAGAGGTTTTTCTATGTTGTTTGGCAAAATCTTGTTTCTGTGAATCATGTTAA GGTCCTGGGAAGAATGATTAATGAGCTATGACATGATTAAGGCGTAGTAGTTATT GAACTGCTGATAATTCAATATAGGGGTAACCTTTGTGTGGTTGTTGGTGACAGGGAG GCTGAGAAGCTAAAGAAGTCACATGGACCACCAAAAGAGGTGCATATGCAAGTG ACCCATTCCATGCCCCACAGAAGCTGGAGATCTTTAAGTCCCTTGAAGGTTGGG CAGAGGACGTTCTGTTGCCGCACCTGAAGCCGTTGAGAAATGCTGGCAGCCACA AGATTTCTGCCCCGAACCCGAGTCGGATGGGTTTCGAGGAGCAAGTGAAGGAGCT CAGGGCAAGGGCTAAAGAACTCCCCGATGACTATTTTGTGTGCTGGTTGGGGAT ATGATCACCGAAGAAGCTCTACCGACTTACCAGACAATGCTCAACACCCTTGACG GGTGAGGGACGAGACTGGAGCCAGCCTTACGCCGTGGGCAATCTGGACAAGGG CGTGGAACCGCTGAAGAGAATAGGCACGGTGACCTTCTCAACAAGTATCTTTACCT CTCTGGAAGGGTGGACATGAGGCAAATTGAAAAGACCATTAGTATCTCATCGGC TCTGGAATGGTATGTACTCACATCCTATCTGCTCCTTTATCCTTTTCCATTAATCTTT GATTGAACAAAATTCAATAAACTGGTAGCTGAACTTTAGATGATTTGTTATAAC TGCCTAGCTTCTATGAGAAAACCACTGAAGTCAAATAGGTTTGACAATGGGTTTA AATGGAAAAAGTTTCATATACCATCTTCCATCTATTTTACATGACATACCAACTTC TACTTCGGAGAAAATTCGCCGTGGATAATCATATTATTGAAGATATAGTACTTAGT AGATTGGTTAGATGAACTGTTAAACAATACATGTGATGTCGTGTGCAATTAATTTG TGTAATGATTAGCTGGGTTCCGGACGACAAATGTGAACTGGAACCCTAGTAAAC TATGAATTGAGGTTGTCCTTCATCACTTATTCTGTCCTGGGTTTGTTCCTGTTTG CAAGATCTGCATGTAGCAGTTTGTCTGGTATTTGCTACCAGTGGTATCTTTGTTTG ATTCCCTAGCATCTCTGAAAACATCGGACCAAGTATCTGGTTAGGACAAATTTGG TTCATTGCGGCATTTTTTGTGTGATCGCTGTATCGTCTGGAAGAAGCAGACAGTTT TGCAAAGTGGCATCAAGCTCAAGAAAGCAACGGCTAGAAGAAGTTCTACATCTG ATGCGTTCCTTTTGTTCCTTGTGTGCTTTTGGACTTTGTTCTTTTGCCTGTAGGAT CCAAAAACAGAAAACAACCCCTACCTCGGTTTCATCTACACCTCATTCCAAGAGA GGGCAACGTTTCATCTCCACGGAATACGGCCAGACTCGCCAAGGACCACGGGG ACATGAAGCTGGCGCAGATCTGCGGGATCATCGCAGCAGACGAGAAGCGGCACG AAACAGCATAACCAAGATCGTCGAGAAGCTCTTCGAGATCGACCCTGACAGTA CAGTGTGGCTCTGGCGGACATGATGAGGAAGAAGATATCGATGCCCGCACACTT GATGTACGATGGAGAAGACGACAACCTCTTCGACAATTACTCGTCGGTTCGCTCAA CGCATCGGGGTGTATACTGCCAAGGATTATGCTGATATCCTGGAGTTCCTGGTGG GGAGGTGGAAAGTGGATGCTTTTACGGGACTTTCCGGGGAAGGGAACAAAGCTC AGGAGTTTGTCTGTGGGCTTCCAGCGAGGATTGCAAAATTGGAGGAGAGGGCTGC GGGGAGGGCAAAGCAAACGTCGAAATCTGTCCCATTCAGCTGGATCTTCAGCAG AGAATTGGTACTCTAA </p>
SAD3-1	<p> ATGCAAGCCCCCACCACGTCAGCGCCCACCGTCCAGCATGGATGCCACGTGGTG GCCGAACCACCTCCACCACCATCATGCACCTCTGCCCTCCACGCGCCGCCATCAA AACTGCTCCGCCGCCTCCCCCTCCGCTCACCTGAAACACCAACACAAAACCCAC ACAATGCCGGCGGAGAAAATCGAGCTTTTCAAGTCCCTCGAGGATTGGGCCTCCG AGAATGTCCTCCCACTTCTCAAGCCCGTCAATAAATGCTGGCAGCCTCAGGACTT CCTCCCCGACCCGTCCCTCTCCGTGCTGATTTCTCCGACGAGGTAATGAACAATT GCGTCTCAATACCTTATATAAGCTACACTTTTACAGGGATTTGAGCTAATATTTG ACAAATTCATCAGTTACGTTTTTGTTCATTACGGATTAGTCATTGTAGTTTTGTCAT TTGTTTCATATAGCTACTCATTTTTTCAGTTCATCAAATTCTCATTTTCTATAGTAAGA TCATTTGGAAGGGTTTTGGAGAGTAATTTCTTGGTCCCACATGATTTGATCGAAAT ATCATTTTAAAATACAAAAATAAATTGGGATTTGAAATCACTTCGATAGGCTAGG TTCCCCAAAAGGTGATTTACGGCTCCCAAAAGGTGATTTCAAATTCATTTTATGGA </p>

	<p>CTTGAGATTGCAAAATCTCAAGTAATTTGAATAGTAAATGATCAAATTATCTTAT TGAGTTTAAGTGAACGAGATAAATTAAGAGGTGCATTAGTCATTTAAAAAATCAA TTTTTTTTTTAATTTTCAAACTATTTTGTGATTGACCGTTAAACCAGTTCGGTTTG ATACTGATTTTGAGTTTTGACTGACAGGTGAGGTTGTTGAGGGAAAGGACGGCGG AGCTACCGGACGAGTACTTCGTCGTCTTGGTGGTGACATGATAACGGAGGATGC GTTACCGACGTACGAGACCATGATCAACACACTTGACGGCGTTAGGGACGAGAC GGGCGCCAGTCAAAGCCCATGGGCCTTGTGGACCCGGGCCTGGACCGCCGAGGA GAATCGCCACGGCGATCTGCTTCGGACCTTTCTGTACCTATCGGGTCGGGTCGACA TGAGGATGGTAGAAAGGACTGTTTACGTACCTCATTGGATCTGGCATGGTAAGTGT AGAATAGCCCTTTCGGTATTCCGAACCGGTTTGATCCGTCAGTGGGATCTTTCGTT CGATTAATCGGGTGATGAGTATATGCCAACTGGCACTAATTTGTCACTTGATTTG ATAGTACATTTTATAAGTTAGTGTTAGCTAGTTACATTGTTTGAGAATGTCACGAA TTCGAAGGAGAAAAAAACCAAAATGCCACTTCGATAATTTATTTTACATGATATA GTCATTGAACCTTCAATCTTTTTACAAATCGGATCCAAATTTGTGTACGCAGTGGT CACTCAACTGTCATTTTAGAATAGGAATAGCATTTTAAACAAGTGATTTACTCGGT CGGGTAACATTACAGGACCCGGGCACAGAGAACAACCCGTACTTGGGGTTCGTG TACACGTCATTCCAGGAGCGAGCCACATTCATATCGCACGGCAACACGGCTCGGC TAGCCAAGGAGGGAGGGGATCCGGTACTCGCACGGATATGTGGCACCATAGCAT CGGACGAAAAGCGACACGAGAACGCCTACACGCGCATCGTGGAGAAGCTCCTAG AGGTGGACCCGAACGGTGCGGTTTGTGCGGTGGCCGACATGATGCATAAGAAGA TCACAATGCCGGCGCACCTGATGTACGACGGGGAGGACCCGAAGCTGTTTCGAGC ACTTCTCATCGGTGGCTCAGCGGCTGGGGGTGTACACCGCGCAGGACTACGCGGA CATACTCGAGTTCTTGATCGGACGGTGGGGGCTGGACAAGGTGGAGCAAGGGCT GGACGGTGAAGGGAGGCGGGCGCAGGATTCGTGTGTGGGCTGCCACGGAGGAT CATGCGGCTCCAGGAGCGAGCCGATGAGAAGGCTAAGAAGATGAAGAAGCCGG AAGCAGTCAAGTTTAGCTGGATTTTCAAACGGCAAGTCGTTTTGTGA</p>
SAD3-2	<p>ATGCACCTCTGCCCTCCACGCGCCGCCATCAAACTGCTCCGCCGCCGCTCCTC CGCTCACCCCTGAAACACCAACACAAAACCCACACAATGCCGGCGGAGAAAATCG AGCTTTTCAAATCCCTCGAGGATTGGGCCTCCGTCAATGTCCTCCCACTTCTCAAG CCCGTCGACAAATGCTGGCAGCCTCAGGACTTCCTCCCCGACCCGTCCCTCTCCGT CGCTGATTTCTCCGACAGGTAATGAACCATTGTGTTCCAATAACTCGTATTGTAA TGTTACTCGTATTTTGAGCTAATATTTGATAAATTCGTCACTTAACTTTTTTGTCTTG ACGGATTAGTCATTGTAGTTTTATTATTTGTTTCGATTTTCAGTTAAATAATTCTCATT TTTTATAGTAAGATCATTGGAAGGAATTTGGAGAGTAATTTTCATGGTCCTGGGT GATTTGATCGAAATATCGCGTTGGAACACGAAAATAAAGGTGGATTTGAGTAGA AAATAACCAAATTGACTTGTTGAAATTGTATTGTTGAGTGAACAGGGGGTTTATTA GTCATTTACAAAATTAAAATGTTTCTTTAATGTCCAAAACCTCAACTAAACACTGA TTTTGAGATTGGCCGTAAACCAGTTCGGTTTGATAAATACTGATTTTGAGTTTGA CTGACAGGTGAGGTTGTTGAGGGAAAGGACGGCGGAGCTACCGGACGAGTACTT CGTCGTCTTGGTGGGTGACATGATAACGGAGGATGCGTTACCGACGTACGAGACC ATGATCAACACCCTTGACGGCGTTAGGGACGAGACGGGCGCCAGTCAAAGCCCA TGGGCCCTATGGACCCGAGCCTGGACCGCCGAGGAGAATCGCCACGGGGATTG CTCCGGACCTTTCTGTACCTCTCGGGTCGGGTGACATGAGGATGGTTGAAAAGA CTGTTACGTACCTCATTGGATCTGGCATGGTAAGTGCAGAATAGTCCTTTTTGTGA TTCCGAACCTGGTTTGATCGGTTGTTTGGTTCGTTTCGTTTGTTAATTGGGTGATGAGT ATGCGAAATTGTCATAAATTATCACTTCATAGTACATTTATAAGCTAGTGTTAG TAACAATAGTTTAAGAATGTTACAAATTTGAACCGGGGAAAAACCAAAATGCCA CTTGATAATTTATTTTGCATGATATAGTCATTGAACCTTTAATCTTCTTACAAATC GGATCCTAATTTGTGTACACATTGGTCACTCAACTGTCAATTTAGAATAGGAATAA CATTTTAACAAGTGATTACTCGGGTCGGGTAACAATTGCAGGACCCGGGCACGGA GAACAACCCGTACTTGGGGTTCGTATACACGTCATTCCAGGAACGAGCCACATTC ATATCGCACGGCAACACGGCTCGGCTAGCCAAGGAGGGAGGGGATCCGGTACTT GCACGAATATGCGGCACCATAGCATCGGATGAGAAGCGACACGAGAACGCCTAC</p>

	ACGCGCATCGTGGAGAAGCTCCTCGAGGTGGACCCGAACGGTGCGGTTTGTGCCG TGGCCGACATGATGCGTAAAAAGATCACAATGCCGGCGCACCTGATGTACGACG GGGAGGACCCAAAGCTGTTTCGAGCACTTCTCGGCGGTGGCGCAGCGGCTCGGGG TGTACACGGCGCAGGACTACGCGGACATACTGGATTTCCTGATCGGACGCTGGGG GCTGGACAAGGTGGAACAAGGGCTGGACGGTGAAGGGAGGCGGGCGCAGGATT TCGTGTGTGGGCTGCCGCAGAGGATCATCCGACTCCAGGAGCGAGCCGATGAGA AGGCTAAGAAGATGAAGAAGCCGGAAGCCGTCAAATTTAGCTGGATCTTCAAAC GGCAAGTCGTCTTGTGA
CDC Bethune	
<i>FAD2a-1</i> (wrong sequence)	ATGGGTGCCGGTGGCAGAATGTCAGTGCCTCCATCATCCAAACCTATGAAGAGGT CTCCTTACTCAAAGCCACCATTACGCTCGGTGAGCTCAAGAAGGCCATCCCTCC ACACTGTTTCAAACGCTCAATCCCCCGATCGTTCGCCTACGTGGCGTACGACCTCA CCATTGCAGCAATCTTCTACTACATCGCCACCCTTACTTCCACCTCCTCCCTAGC CCTCTCAACTACCTCGCCTGGCCGGTCTACTGGGCCTGCCAGGGCTGCATCCTCAC TGGAGTATGGGTGTTGGCTCACGAATGCGGTCACCATGCCTTCAGCGACTACCAG TGGCTCGACGACATGGTTGGCTTCGTCTCCATTTCGTCCCTCCTTGTTCTTACTTC TCCTGGAAGCACAGCCACCGCCGCCACCATTCAAACACGGGGTGCCTTCTCCGGG AGACCATATGACCGGTTTCGCATGCCATTTTCGACCCTCACGGTCCGATTTACAATG ATCGCGAGCGTATGGAGATATACCTATCCGACGCAGGGATATTCACCGTGTGCTA CATCCTATACAGACTCGTCTTCACGAAAGGACTCGTTTGGGTCGTGTCCATTTACG GAGTCCCACTATTGATAGTGAATGGATTCCTAGTCCTCATCACTTTCTTGCAGCAC ACGCATCCTTCTCTTCCGCACTACAAGTCCTCCGAATGGGACTGGCTGCGAGGCG CCCTCTCGACCGTGGATCGAGACTACGGGTACTCAACACCGTGTTCACAACAT CACCGATACACATGTCGCGCACCATCTCTTCTCCACGATGCCTCATTACCACGCG ATGGAGGCTACCAAGGCGATCAAGCCGGTTCCTCGGGGAGTATTACCAGTTCGATG GGACTCCCTTTGTGAAGGCCATGTGGAGGGAGGCAAAGGAGTGCATCTATGTCGA GCCGGATGAAGGCGACCCCAGCCAAGGCGTGTCTGGTACAACAACAAGCTGTG A
<i>FAD2a-2</i> (wrong sequence)	ATGGGTGCCGGTGGCAGAATGTCAGTGCCTCCATCATCCAAACCTATGAAGAGGT CTCCTTACTCAAAGCCACCATTACGCTCGGTGAGCTCAAGAAGGCCATTCTCC ACACTGTTTCAAACGTTCAATCCCCCGATCGTTCGCCTACGTGGCGTACGACCTCA CCATTGCAGCAATCTTCTACTACATCGCCACCCTTACTTCCACCTCCTCCCTAGC CCTCTCAACTACCTCGCCTGGCCGGTCTACTGGGCCTGCCAGGGCTGCATCCTCAC TGGAGTATGGGTGTTGGCTCACGAATGCGGTCACCATGCCTTCAGCGACTACCAG TGGCTCGACGACATGGTTGGCTTCGTCTCCATTTCGTCCCTCCTTGTTCTTACTTC TCCTGGAAGCACAGCCACCGCCGCCACCATTCAAACACGGGGTGCCTTCAGCCA CCGCCGCCACCATTCCAACACGGGATCGCTTGATCGTGATGAGGTGTTTGTCCCC AAGCAGAAGGCCGAAATCGGGTGGTACTCCAAGTACCTTAACAACCCACCTGGC CGTGTGATCACATTGGCCGTCACATTAACGCTCGGTTGGCCTCTGTACTTGGCATT CAACGTCTCCGGGAGACCATATGACCGGTTTCGCATGCCATTTTCGACCCTCACGGT CCGATTTACAATGATCGCGAGCGTATGGAGATATACCTATCCGACGCAGGGATAT TCACCGTGTGCTACATCCTATACAGACTCGTCTCACGAAAGGACTCGTTTGGGTC GTGTCCATTTACGGAGTCCCACTATTGATAGTGAATGGATTCCTAGTCCTCATCAC TTTCTTGCAGCACACGCATCCTTCTTCCGCACTACAAGTCCTCCGAATGGGACT GGCTGCGAGGCGCCCTCTCGACCGTGGATCGAGACTACGGGTACTCAACACCGT GTTCCACAACATACCGATACACATGTCGCGCACCATCTCTTCTCCACGATGCCTC ATTACCACGCGATGGAGGCTACCAAGGCGATCAAGCCGGTTCCTCGGGGAGTATTA CCAGTTCGATGGGACTCCCTTTGTGAAGGCCATGTGGAGGGAGGCAAAGGAGTG CATCTATGTCGAGCCGGATGAAGGCGACCCCAGCCAAGGCGTGTCTGGTACAAC ACAAGCTGTGA
<i>FAD2b-1</i>	ATGGGTGCTGGCGGAAGAATGGCCGTGCCTCCATCGAACAAGGCGGACTCCGAA ACCTTTAAGCGGTCTCCTTACTCAAAACCTCCCTTCACTCTTGGTGAGATCAAGAA AGCCGTCCCTCCACACTGCTTCAAAAGGTCCATCCCCCGCTCGTTCTCCTACGTGG

	<p>CTTATGACCTCACCATAGCCGCCATCTTCTACTACATCGCCACCACTTACATCCAC CTCCTCCCCAATCCTCTCTCCTACGTGGCGTGGCCGATCTACTGGGCCTGCCAAGG CTGCGTCTCACTGGTGTCTGGGTCTAGCCCACGAATGCGGTACCATGCCTTCA GCGACTACCAATGGCTCGACGACTTGGTCGGCTTTGTCTCCACTCATGCCTCATG GTACCCTACTTCTCGTGGAAGCACAGCCACCGTCGCCACCACTCCAATACTGGGT CCCTCGAACGAGACGAGGTTTTTGTCCCCAAGCAGAAATCAGCCATTGGCTGGCA CTCAAAGTACCTCAACAACCCACCTGGCCGTGTGCTCACACTTGCAGTCACTCTC ACTCTCGGCTGGCCTTTGTACTTGGCATTCAACGTCTCTGGAAGGCCGTACGACCG GTTTCGCCTGCCATTACGATCCTAAATCCCCCATCTACAACGACCGCGAGCGAACG GAGATATTCTTCTCCGATGCTGGCATCCTTGCTGTGAGCTTTGCGCTCTACAAGCTT GCTGTGCGCAAGGGACTGGCTTGGGTGGTTTGTGTCTACGGAGTTCCACTCCTTGT AGTGAATGGATTCTTGTCTTGATCACTTTCTTGCAGCACACCCACCCATCATTGC CGCACTACAAATCCTCCGAATGGGACTGGCTGAGAGGTGCTCTGGCGACCATGGA CAGAGACTACGGGTTTCTGAACACGGTGTTCATAACATCACGGATACCCACGTG GCGCACCACTGTTCTCGACGATGCCTCATTACCATGCAATGGAAGCTACAAAGG CGATCAAGCCGGTATTGGGAGAGTACTACCAATTCGACGGGACTCCATTATCAA GGCGATGTGGAGGGAGGCTAAGGAGTGTGTTTATGTGAGCCCGACGAAGGTGA CCAGAACAAGGCGTGTCTGGTACAACAACAAGCTGTGA</p>
<i>FAD2b-2</i>	<p>ATGGGTGCTGGTGGAAGAATGGCTGTGCCTCCATCGAACAAGGCGGACTCGGAA ACCTTTAAGCGGTCTCCATACTCAAAACCTCCATTACACTTGGTGAGATCAAGA AAGCCATCCCTCCACATTGCTTCAAAAGGTCCATCCCCCGCTCATTCTCCTATGTG GCTTATGACCTCACCATTGCCGCCATCTTCTACTACATCGCCACCACTTACATCCA CCTCCTCCCCAATCCTCTCTCCTACGTTGCGTGGCCGATCTACTGGGCCTGCCAAG GCTGCGTCTCACCAGGTGTCTGGGTCTAGCCCACGAATGCGGTACCCACGCCCTC AGCGACTACCAATGGCTTGATGACTTGGTCGGCTTTGTCTTCACTCATGCCTCAT GGTCCCCTACTTCTCGTGGAAGCACAGCCACCGTCGCCACCACTCCAACACCGGG TCCCTTGAACGAGATGAGGTTTTCTGTCCCCAAGCAGAAATCGGCCATCGGCTGGC ACTCAAAGTACCTCAACAATCCACCTGGCCGTGTGCTCACACTTGCAGTCACTCT CACTCTCGGCTGGCCTTTATACTTGGCATTCAACGTTTCCGGAAGGCCGTACGACC GGTTCGCCTGCCATTACGATCCTAAATCCCCTATCTATAACGACCGCGAGCGAAC TGAGATCTTCCTCTCCGATGCCGGCATCCTTGCTGTGAGCTTTGCACTCTACAAGC TTGCTGTGCGCAAGGGACTGGCTTGGGTGGTTTGTGTCTATGGAGTTCCACTCCTT GTAGTGAATGGATTTCTTGTCTTAATCACTTTCTTGCAGCACACCCACCCATCATT GCCGCACTACAAATCCTCCGAATGGGACTGGCTGAGAGGTGCTCTGGCGACCATG GACAGAGACTACGGGTTTCTGAACACGGTGTTCATAACATCACAGATACCCATG TGGCGCATCACCTGTTCTCGACGATGCCTCATTACCATGCGATGGAAGCTACCAA GGCGATCAAGCCGGTATTGGGAGAGTACTACCAGTTCGATGGGACTCCATTATC AAGGCGATGTGGAGGGAGGCTAAGGAGTGTGTCTATGTTGAGCCTGACGAAGGT GACCAGAACAAGGCGTGTCTGGTACAACAACAAGCTGTGA</p>
<i>FAD2c-1</i>	<p>ATGTTCTCATCCTCTGCAACTAAAATGCCGGCGCCGCTTCATCATCCAACACGA CCATGAAGCGATCGCCTCACTCAAAGCCGCCGTTACCCGTCTCCGACGTCAAGAA AGCCATTCCACCACACTGCTTCCAAAGGTCCCTCCTCCGATCATTCTCCTACCTAA CCTACGACCTCACCATCATCACAATCCTCTACCAAGTCGCCACCACTTACTTCCAC CTCCTCCCGACACCTCTCTCATCCTACGTGGCATGGCCGGCCTACTGGGCCGGCCA AGGCTGCTTCTTCGTCGCTGTATGGATGGTGGCCACGAGTGTGGCCATCACGCCT TCAGCGACCAGCACTGGCTGGAAGACTCGGTCCGATTATCCTCCACTCAGCCCT CCTTTCACCTTACTTCTCATGGAAGCACAGCCACCGTCGCCACCATGCCAACACG AGCTCCCTCGAACGTGACGAGGTGTTCTGTCCTAAACCCAAGTCCAAGCTGAGCT GGCACTTCAAGTTCTTCAACAACCCGCTGGCCGCGTCTGCAGTTGGCATTGCT CTGCTTCTTGGATGGCCTCTCTATTTGGCGATCAACATCGCCGGAAGGCCGTACGA GAAATTCGCTAGCCACTTCGATCCGAGAAGCCCTATCTACAACGATCGAGAGCGG ATCGAGATATTCGCATCCGATGTTGGCGTGCTCTGCATGTGGTTTCGCGCTGTATAA ACTTGCTCTAGTGAACGGAGTTGGTTGGGTGTTTGTGTGTACGGGATCCCGCTGT</p>

	TGGTGATGAATGGATGGGTCGTTACGATCACTTACTTGCATCACACGCATATAGC GTTGCCGCGGTATGATTTCGTCCGAATGGGATTGGTTGAGGGGTGCATTGGCGACT GTGGATAGGGACTATGGTGTTTTGAACAAGGTGTTTCATAACATCACGGATACTC ATGTGGCGCACCATCTGTTTTTCGGCGATGCCTCATTACCATGCGGCGGAAGCGAC CGAGGCGATCAAGCCCGTTTTGGGCGAGTATTATCGGTGTGACCGGACTCCTATT ATCAAGGCGTTATGGAGGGAGTTTAAGCACTGTATTTATGTCGAGTCAGATGAGG ATAAAGGCGTGTTTTGGTTCAATGACAAGTTGTAA
<i>FAD2c-2</i>	ATGCCGCCGCCGCTTCATCATCCAACACAACCATGAAGCGATCGCCACACTCAA AGCCGCCGTTACCCCTCTCTGACATCAAGAAAGCCATACCACCGCACTGCTTCCA AAGGTCCCTCCTCCGATCATTTGCCTACTTAGCCTACGACCTACCGCCGTCACAA TCCTCTACCACATCGCCACCACGTACTTCCACCTCCTCCCGACACCTCTCTCATCC TACGTGGCTTGGCCGGCCTACTGGGCCAGCCAAGGCTGCTTCTTCGTCGCTGTATG GATGGTGGCCACGAGTGCAGTACCACGCCTTTAGCGACCAACACTGGCTGGA AGACTCGGTAGGGTTCATCCTCCACTCGGCCCTCCTTTCGCCTTACTTCTCGTGGA AGCACAGCCACCGCCGCCACCACGCCAACACGAGTTCCCTCGAGCGTGACGAGG TGTTTCGTCCCTAAGCTGAAATCCAAGCTGAGCTGGCACTTCAAGTTCTTCAATAAC CCGCCTGGCCGCGTCTCTGCAGCTGGCCTTTGCTCTGCTTCTAGGATGGCCTCTCTA CCTTGCGGTCAACATCGCAGGAAGACCGTACGAGAAATTCGCTAGCCACTTCGAT CCGCGAAGCCCTATCTATAACGATCGGGAGCGAATTGAGATATTTGTATCTGATG TTGGCGTGCTTGCTATGTGGTTCGCTCTGTATAAACTTGCCCTGACGAACGGAGTT GGTTGGGTGTTTTGTGTGTACGGGGTCCCTCTGTTGGTGATGAATGGATGGATCGT TACGATCACTTACTTGCATCACACGCATGTCGCATTGCCGCGGTATGATTCCTCGG AGTGGGATTGGTTGAGGGGTGCGCTCGCGACTGTAGATAGGGATTATGGGGTTTT GAACAAGGTGTTTCACAACATTACAGATACTCATGTGGCGCACCATCTGTTTTCG ACGATGCCTCATTACCATGCGGCGGAAGCAACCGAAGCGATCAAGCCCGTTTTGG GTGAGTATTATCGGTCTGACCGGACTCCTATCGCCAAGGCATTATGGAGGGAGAC TAAGCACTGTGTCTATGTCGAGGTTGATGAAGATAAAGGCGTGTTGTGGTTCAAT GATAAGATATGA
<i>FAD2d-1</i>	ATGGTATCCAATACCACCATAAAGCGAACACCGACCTCAAAACCGCCGTTACCC CTCTCCGACGTCAAGAAAGCAATACCACCGCACTGCTTCCAAAGATCCCTCCTCA AATCCTTACCTACCTAGCCTACGATCTCACCGTCATCACAATCCTCTACCACATC GCCACGTCATACTTCCACCTCCTCCCCAACCCTCTCTCCTACGTGGCGTGGCCGCT CTACTGGGCGGCCAGGGGTCACACTTCATCGCTTGGGCGGCTCAGGGGTCCCAC TTCATCGCCGTGTGGGTATCGCCCACGAGTGCGGCCAACACGCCTTCAGCGACT ACCAGTGGCTAGACGACGCCGTTGGGTTTCGTCCTCCACTCCCTCCTCTTAGCTCCT TACTTCTCCTGGAAGCACAGCCACCGCCGTCACCACGCCAACGCCGCTCCATCG AGCGCGACGAGAATTACATCCCGAAAAAGAAGGACGAAGTCAACTGGCATTTTA AATACCTCGACAACCCTCCCGGACACGTGTTCTATATATTCTTCACTCTCACCTC GGATGGCCGCTCTACTTGCTGGTCAACATCTCCGGCAGGAAATACGACGACGGAT TCGCCAGCCATTTGTATCCTTTCTCCCCTATCTACAACGACCGCGAGAGATTCCGG ATAGTCCTCTCCGTCGCCGGGATGCTCGCCACGTGGTTCGGTCTTTATAAACTCGC GATGGTCAACGGGTTTCGGTTGGGTTGTTTTCGCTGTACGGGGTGCCTCTCATTCTCC AGAATGCGATGTTGATTACCATCACTTACTTGCACCACACGCATCTCAACTTGCCC CACTACGACTCGTCGGAGTGGGACTGGATGAGGGGTGCACTCGCGACTGTGGATA GGGATTACGGAATTTTGAATAAGGTGATGCATAATATTACGGATACCCACGTGGC GCACCATCTGTTCTCGATGATTCCTCATTATCATGCGATGGAGGCTACAAATGCGA TAAAGCCGTTCTTGGGGAGTACTACCAAGTTGATACTACGCCGTTTTTGAAGGC GTTGTGGAGAGAGACTAAGGATTGTGTTTATGTTGAGGCGGATGATGAGGGATCT GATCGGGAGAAGAAAGGAGGGGTGTTTTGGTTCAAAACCAAGCTGTAA
<i>FAD2d-2</i>	ATGGTATCCAATACCACCCTAAAGCGAACACCGACCACAAAACCGCCGTTACCC CTCTCCGACCTCAAGAAAGCAATACCACCACACTGCTTCCAAAGATCCCTCCTCA AATCCTTCTCCTACCTAGCCTACGACCTCACCGTCATCACAATCCTCTACCACATC GCCACGTCATACTTCCACCTCCTCCCCAACCCTCTCTCCTACGTGGCCTGGGTGGC

	CTATTGGGCCGCTCAGGGGTCCCACCTTCATCGCCGTGTGGGTCATCGCCCACGAG TGCGGCCACCACGCCTTCAGCGACTACCAGTGGCTAGACGACGCCGTGCGCTTCC TTCTCCACTCCCTCCTCTTAGCTCCTTACTTCTCCTGGAAGCACAGCCACCGCCGC CACCACGCCAACGCCGCCTCCATCGAACGTGACGAGAATTACATCCCGAGAAAG AAGGACGAAGTCAACTGGCATTTTAAGTACCTTGATAACCTCCCGGACACGTGT TCTATATATTCTTCACTCTCACCTCGGATGGCCGCTCTACTTGCTGGTCAACATCT CCGGGAGGAAATACGACGACGATTTCGCCAGCCATTTGTATCCTTTCTCCCCGAT CTACAACGATCGGGAGAGGTTTCGGGGTGTTCCTCTCCGTCGCGGGGATGCTCGCC ACGTGGTTCGGACTTTATAAGCTCGCAATGGTCAACGGTCTCGGCTGGGTGTTTG CGTGACGGGGTCCCTCTGATTCTCCAGAATGCGATGTTGATTACCATCACTTACT TGCACCACACGCATCTCAACCTGCCCCACTACGACTCGTCGGAGTGGGACTGGAT GCGGGGTGCGCTCGCGACTGTGGATAGGGACTACGGGATTTTGAACAAGGTAAT GCATAATATTACGGATACTCACGTGGCACACCATCTGTTTTCGATGATTCTCATT ACCATGCGATGGAGGCTACGAATGCGATCAGGCCGGTTCTGGGGGAGTACTACC AGGCCGATACGACGCCGTTTATTAAGGCGTTGTGGAGGGAGACTAAGGACTGTGT TTATGTTGAGGCGGATGATGAGGGCGGTGATCAGGAGAAGAAAGGAGGGGTGTT CTGGTTCAAAACCAAACCTGTGA
<i>FAD2e-1</i>	ATGTCCCCTATTTACAGCGACCGCGAGCGAGCCGAGGTATTCGCCTCAGATGTTG GCTTGCTCGCTGTCTGCTTCGCGTTGTACAACTTATTATGGTCAAGGGAATGGCG TGGGTTTTTTCGCTCTATGGGGCTCCGGTCATGGTGGTGAATGGATTCTTCATTACC ATCACTTACTTGCATCACACTCATCTCGCGGTCCCGCGATACGATTCGTCTGAATG GGATTGGTTGAGGGGAGCCCTGGCAACCATGGACAGGGACTTTGGCCTTTTGAAC AAGGTGTTCCATAATGTTACAGATACTCACGTGACGCACCATCTGATTTTCGACGA TCCCTCATTATCATGCCATGGAAGCCAACAACGCAATTAGGCCCGTGTTGGGGGA CTACTACCATATCGACAGGACGCCGGTGGTTAAGGCGTTGTGGAGGGAGGCTAA GGAGTGTGTTTACATCGAGGCCGATGATGGTGAAAAGAACAAGGCGTGTTCTG GTTCAATACCAAGCTCTAA
<i>FAD2e-2</i> (exon- intron junctions are not given)	ATGCACTTTCGGATAGCTAGCCTTTGTCTCATGCTAAAAACAGGCCATACATGGC GCCACAAAGCACTGCTCTAGTAAGTACACATGATTGGGATTACACTACACTTCAG TAATTAAATCAGTCCATATTTTACCTGGATCCAAAGTTGAAAATAACTCAAAAA CAAATTTGTGCAAAATTGAGCATCAAATGAGACAATATTAACTATTTTCGAGTTTT GTTGGGCTGTTCTCGAGTTGTAAGCCTCTCCGAAAACATGTATAAAAAGCACTC GACCTATTCATATTAGACAACATCAAAATCCCACCAATCAATCAAAAAACAGAG AGACACATCTAAAAGCGCCCCCCCCCCCCACCNNNNNNNNNNNNNNNNNNNNNN NN NNNNNNNNNACCCAGTCCCGCCGGCGCCAAGCGGTTCCCGTCCTCAAAGCCGCCGT TCACACTCGCCGACCTCAAGAAGGCCATTCCGCCGCACTGTTTCAAAGATCCAT CCCACGTTCTTCTCCTACTTGGTTTTTCGACCTCATCGTCGCCGCCGTCTTCTACCA CATCGCCGCCACTTATTTCCCCCTCATCCCCAAACCTCTCTCCTACGTGGCGTGGC CGGCCTACTGGTTCGTCCAGGGCAGCGTCCTGACCGGTGTGTGGGTCATCGGCCA CGAGTGCGGGCCACCACGCATTTAGCGAGCACCAGTGGCTCGACGACCTGGTTCGG GTTCAATTCTCCACTCGGCCCTCCTACCCCTTACTTCTCGTGGAAGATCAGCCACC GCCGCCACCACGCCAACACCTGCTCCCTCGAGCGCGACGAGGTATATACTGTTGG GAACCGGACAAGAAGCAATATTCAGGGTTTATCGATCTGGCTGAGTATACATGGA CAAATATCCATCAACATCCAAGATAAAAAACAGAGCTATAACTTTCAACTTCCAT GTGCAAAAATAGGGAGATGAATAAAATTTAGATAATTTAAACAAATAAATTAT CTCCAAAATGAATAATATTGGTCTCAAGTCCAATCCAACCTGGAGAACTGGATCT TTCTACAAAGACGTTTTTGCATTAGTCTTTTTTCTTTCTCCGATGTGATATTTGAGA CTTAATTATTCACATTTTTTCAACAGGTGTACATTCCGAGGAAGAAGTCTCAGTTGC GGTGGTGGTACTCGAGCTACCTGAACAACCCGCCCGGACACTTTTGGCGCTGGC TTACACCATCCTCCTCGGCTGGCCTTCTACTTGACTTTCAACCTATCCGGTAGGG AATAACAACGGTTTTGCCTGTCAATTTCTACCCGATGTCCCCTATTTACAGCGACCGG GAGCGGGCCGAGGTATTCGCCTCCGATGTTGGCTTGCTTGTGTGCTTCGCGCT

	GTACAAACTTATCCTCGTCAAGGGAATGGCGTGGGTTTTTTGCGTCTACGGGGGCTC CGGTCATGGTGGTGAACGGATTCTTCATAACCATCACTTACTTGCACCACACTCAT CTTGCGGTCCCGCGGTACGATTCTCGGAATGGGATTGGTTGAGGGGAGCCCTAG CAACGATGGATAGAGACTTTGGGTTATTGAACAGGGTGTTCCATAACGTTACAGA TACTCATGTGACGCACCATCTGATCTCGACCATCCCTCACTACCATGCCATGGAA GCCAACAACGCGATTAGGCCCGTGTGGGGGACTACTACCACATCGACAGGACG CCTGTCGTTAAGGCGTTGTGGAGGGAGGCTAAGCAGTGTGTTTACATCGAGGCGG ACGAAGGTGAAAATAACAAAGGCGTGTTCTGGTTCAATACCAAGCTCTAA
<i>FAD2f-1</i>	ATGGTGTCTCTCCGGCAAAACCATGAGCAACAAAACCACCACGAAGCGGCCGCCG GTGTCAAAACCGCCGTTCACTCTGGCCGACATCAAGAGAGCCGTACCGCCACACT GCTTCAAAAGATCCCTCGTCAAATCATTGCGCTACCTAGCCTACGACCTCACCGTC ATCACAATCCTCTACCACATCGCCAACACATACTTCCACCTCCTCCCCAAACCTCT CTCCTACGTGGCGTGGCCCGTCTATTGGGCTGCCCAATGCTGCTTTTTTCGTCGCTTT ATGGATGGTGGGCCACGACTGCGGCCATCATTATTAGCGACTATCAGTGGGTG GACGACACCGTTGGATTTCGTCGTCCACTCGTTCTCCTCGCCCTTACTTCTCGTGG AAGCATAGCCACCGCCGCCACCACGCCAACTCCGGATCTCTAGAACGCGACGAG TCGTTTCGTCCCGAAAACCAAAGACAATATCACCTGGCACTTCAAGTACCTCGACC ACCTACCGGGGCGGATCTTCTACGTGGTCTTCACTCTAACCCTCGGATGGCCGCTC TACTTGATGTTCAACATCACCGGAAGGCCGTACAAGGACGGATTCGCCAGTCATT TCTACCCCATGTGCGCTATCTACGAGGATCACGAGCGGTTTCGGAATATTCTCTCT GATGTTGGCATGCTCGCTATGTGGTTCACACTCTACAAGCTTTCGGTGGCGTATGG AGTCGGTTGGGTTCTTTGTGTGTATTTTATTCCGCTGGTTTTACAAAATGCGTTGTTT GTCACGATCACTTACTTACACCACACGCATCTGAACTTGCCTCACTATGACTCTTC GGGGTGGGACTGGATGAGGGGGTTCGTTGACGACTGTGGATAGGGACTATGGGTTT TTGAACAAGGTGTTGCATAACGTGACAGATACTCACGTGGCGCACCATCTGTTCA CCCATATGCCTCATTACCACCAATCGGAAGCGACCAAGGCGTTCATTCCGGTTTTG GGGGAATACTACCAGGTTGATCCGACTCCGTTCTACAAGGCGTTGTGGAGGGAGA TGAAGCACTGTGTTTATATCGAGCAAGATGAGGATGCGGATTCTGATAATAACAA AAAAGGCGTGTA CTGGTACAAAACCAAGCTCTAA
<i>FAD2f-2</i>	ATGGTATCCTCCGACAGAACCACGAACAACAAAACCACCACGAAGCGGCCGCCG CTGTCAAAACCGCCGTTCACTCTCGCCGACATCAAGAGAGCCGTACCGCCGCACT GCTTCAAAAGATCCCTCGTCAAATCATTGCGCTACCTAGCCTACGACCTCACCGTC ATCACCTTCCTCTACCACATCGCCAACACATACTTCCACCTCCTCCTCAAGCCTCT CTCCTACGTGGCGTGGCCCTCTACTGGGCCGCTCAATGTTGCTTCTTCGTCGCTTT ATGGATGGTGGGTACGATTGTGGCCACCATTTCGTTACGCGACTATCAGTGGATT GACGACACTGTCGGTTTTATCATCCACTCGTTCTCCTTGCTCCTTATTTCTCCTGG AAGCACAGCCACCGCCGCCATCATGCCAACTCCGGATCTCTAGAACGCGACGAG TCGTTTCGTCCCGAAAACCAAAGACAATATCGTCTGGCACTTCAAGTACCTCGACC ACCTACCGGGGCGGATCTTCTACGTGGTTTTCACTCTGACCTCGGGTGGCCACTA TACTTGATGTTCAACATCACTGGAAGGCCGTACAAGGATGGATTTCGCCAGCCATT TCTACCCCATGTGCGCGATCTATGAGGATCACGAGCGGTTTCGGGATATTCTCTCC GATGTTGGAATGCTCGCCATGTGGTTCACGCTCTACAAGCTCTCAGTGGCATATGG AGTCGGTTGGGTTCTTTGTGTGTATTTTATTCCGTTGGTTTTACAAAATGCTTTGTTT GTTACGATCACTTACTTGACCACACGCATTTGAACTTACCTCACTATGACTCTTC GGGGTGGGACTGGATGAGGGGGTTCGCTGACGACTGTGGATAGAGACTATGGGTTT TTGAACAAGGTGTTGCATAACGTGACAGATACTCACGTGGCGCACCATTGTTCA CACATATGCCTCATTACCATCAATCGGAAGCGACCAAGGCGTTCATTCCGGTTCT GGGGGAGTACTACCAGGCTGATCCGACACCGTTCTACAAGGCGTTGTGGAGGGGA GATGAAGCATTGTGTTTATGTGAGCAAGATGAGGATGCGGATTCCGATCAGAAC AAAAGAGGAGTGTACTGGTACAAAACCAAGTTGTGA
<i>FAD2g-1</i>	ATGAACAACAGAACCACCACGAAGCTGCTGCCGCTGTCAAAACCGCCGTTCACT CTGGCCGACATCAAGAGAGCCGTACCGCCACACTGTTTCAAAAGATCCCTCGTCA AATCATTGCGCTACCTAGCCTACGACATCACCGTCATCACAATCCTCTACCACATC

	<p> GCCAACACATACTTCTACCTCCTCCCCAAACCTCTCTCCTACGTGGCGTGGCCCGT CTATTGGGCGCCCAAAGCTGCTTCTTCGTCGCTGTATGGATGGTGGGTACAGATT GCGGCCACCATTCAATTCAGCGACTACCAGTGGGTGGACGACACTGTCGGATTCTG CGTCCATTCTGTTCTCCTCACCCCTTACTTCTCGTGGAAGCACACCCACCGCAGCC ACCACGCCAACAACGGATCTCTAGAACGCGACGAATCTTTCGTCCCCAAGACCA AAGACGAAGTCAGGTGGCACTTCAAGTACCTCGACCACCTACCGGGGCGAATCTT CTACGTGTTCTTTACTCTAACCCTAGGATGGCCTCTCTACTTGATGTTCAACATCAC CGGAAGGCCGTACAAGGATGGATTCTGCTAGCCATTTCTACCCCATGTCGCCTATG TACGAGGACCATGAGCGGTTTGGAGTAGTCCTGTCCGACATGGGAATGCTCGCTA TGTGGTTTACGCTCTACAAGCTCTCGGTGGCGTTTCGGAGTCACTTGGGTTCTCTGT GTGTACTTTATTCCACTAGTTTTACAAAACGCGTTGTTTGTACGATCACTTACTTG CACCACACGCATCCAAACGTGCCTCGTTATGACTCTTCGGGGTGGGGTTGGATGA GGGGTTCGTTGGTGACCGTGGATAGAGACTATGGGTTTTGAATAAAGTGTTCCA TAACGTGACGGATACTCACGTGGCGCACCATCTGTTACGCATATGCCTCATTACC ACCAATTGGAAGCTACCAAGGCGTTCATCCCGATTTTGGGAGAGTACTACCAGGC TGATCCAACACCGTTCTATAAAGCATTGTGGAGAGAAATGAAGCACTGTGTTTAT GTCGAACAAGACAAAGATGCAAATGTGCATCAGAACAAAAGAGGTGTGTATTGG TACAAAACAAAGTCGTGA </p>
<i>FAD2g-2</i>	<p> ATGGTATCCTCCGACAAAACCATGAACAAAAAAACCACCACGAAGCTGCTGCCG CTGTCAAAACCGCCGTTCACTCTCGCCGACATCAAGAGAGCCGTACCGCCACACT GCTTCAAAAGATCCCTCGTCAAATCATTGCCTACCTAGCCTACGACATCACAGT CATCACAATCCTCTACCACATCGCCAACACATACTTCCACCTCCTCCCCAAACCTC TCTCTACGTGGTGTGGCCCCCTCTACTGGGCTGCCCAATGTTGCTTCTTCGTCGCGG TATGGATGGTGGCCCATGATTGTGGCCACAATTCATTACGCGACTATCAATGGGT CGACGACACCGTCGGTTTCATCATCCACTCGTTCCTCCTCGCCCCCTTACTTCTCATG GAAGCACACCCACCGCAGCCACCACGCCAACAAATGGATCTCTAGAACGCGACGA GTCTTTCGTCCCCAAGACCAAAAGACGAAATTAGATGGCACTTCAAGTATCTCGAC CACCTACCGGGGAGAATCTTTTACGTGTTCTTCACTCTAACCCTAGGATGGCCTCT CTATTTGATGTTCAACATCACCGGAAGGCCGTACAAGGACGGATTTCGCCAGCCAT TTCTACCCCATGTCGCCTATGTACGAGGACCACGAGCGGTTTCGGAGTAATCCTCTC TGACATGGGAATGCTCGCCATGTGGTTCACCCTCTACAAGCTCTCAATGGCGTATG GAGTCAGTTGGGTTCTCTGTGTGTACTTTATTCCACTGGTTTTACAAAATGCGTTGT TTGTCACGATCACTTACTTGACCCACACGCATCCGAACCTGCCTCGTTATGACTCT TCGGGGTGGGGTTGGATGAGGGGGTTCGTTGGTAACAGTGGATAGAGACTACGGG TTTTTGAACAAAGTGTTGCATAACGTGACAGATACTCACGTGGCGCACCATCTATT CACGCATATGCCTCATTACCACCAATTGGAAGCTACCAAGGCGTTCATTCCGGTTT TGGGGGAGTACTACCAAGCTGATGCAACACCGTTCTACAAGGCATTGTGGAGGG AGATGAAACACTGTGTTTATGTGAGCAAGATGAGGATGCAGATTCCGACCAAA ACAAAAGAGGTGTGTACTGGTACAAAACCAAGCTGTGA </p>
<i>FAD2h</i>	<p> ATGGTATCCAACAAAACCATAAACCGGCCGCCGTCTCAAAACCGCCGTTTCATCC TCTCCGACATCAAGAAAGCAATCCCACCACACTGCTTCCGCAAATCCCTCCTCCG ATCATTCTCCTACGTAGCCTACGACCTCGCCGTCATCGCAATCCTCTACCACATCG CCACGTCATACTTCCACCTCCTCCCCAAACCTCTCTCCTACGTGGCCTGGCCGGCA TACTGGGCGCCGAGGGATCCCACTTCATCGCCGTCTGGGTCTGGCCACGAGT GCGGCCACCACGCCTTCAGCGACTACCAGTGGCTAGACGACGTCGTCGGATTCTG CCTCCACTCCGCTCTCCTCTCGCCGTACTTCTCGTGGAACACAGCCACCGCCGCC ACCACTCCAACCTCGGCATCTCTAGAACGCGACGAGCTGTACATCCCGAAGAAGA AATCGGAGATTAGCTGGCATTACAAGTACCTCGACAACCCGCGGGTCATCTTTT CTACTTGGTGTTCACTCTCACTCTCGGATGGCCTCTCTACGTGATGTTCAACGTCTC CGGCAGGGAATACGACGACGGATTCTGCTAGCCATCTGTATCCTTTCTCCCCGATCT ACAACGAACGGGAGAGATTTCGGGATACTTTTGTGCGACGCTGGGATGCTTGCCAC TTGGTTTGGTCTGTACAAGCTGTCCATGGTCAACGGACTGAGTTGGGTTGTTTGTG TGTACGGGGTCCCGCTATTGGTGATGAATGGATTGCTTGTGACGATCACTTACTTG </p>

	<p> CATCACACCCATCTTTCGCTCCCGCATTATGACTCGTCGGAGTGGGAGTGGATGA GAGGTGCGCTAGCGACTGTGGATAGAGACTACGGGTTCCCGCTGAATAAGGTGAT GCATCATATTACGGATACTCACGTGGTGCACCATTGTCTCGATGATTCTCATT ACCATGCGACGGAGGCTACAAATGCGATTAGGCCGATTTTGGGTGAATATTATCA AGTTGATCCGACTCCGTTTGTCAAGGCGTTGTGGAGGGAGATGACGCACTGTGTTT ACGTTGAGGCCGATGAGAAGAAACGAGGTGTGTTCTGGTATAAAACCAAGCTAT GA </p>
<i>FAD3a</i>	<p> ATGAGCCCTCCAAACTCAATGAGTCCCGCCACCAACGGCAGCACCAATGGTGTG GCTATCAATGGGGCGAAGAAGCTACTCGATTTCGACCCGAGTGCTGCTCCCCCTT TCAAGATTGCAGACATCCGTGCTGCAATCCCGCCGATTGTTGGGTGAAGAACCC CTGGAGGTCACTCAGCTACGTCTGAGAGACCTCCTGGTCATCCTCAGCTTCGCCG TTGCGGCGACAAAGCTGGACAGCTGGACTGTCTGGCCTCTCTACTGGATTGCTCA AGGAACCATGTTCTGGGCAGTCTTTGTTCTTGACATGATTGGTAATTCACATGA TCTTTCTGGTAATGTGGGTTTTCTTTCTTATTGAAAAAGATTAAACTTTTATCTG GGCTGTTGCATGCA GTGGCCATGGGAGCTTCTCAGACAGTTGGTTGTTGAACAAC GTGATGGGACATATACTCCATTCCCTCAATCCTCGTACCTTACCATGGATGGTATTG TAACTATTGTTTCGATATTCGATTATGATTACTGTTCTTTCAGATGAAGAATCTGTAC CCTAATTGTTTTTTGTTACCAGGAGAATTAGCCACAAGACCCATCACCAGAATCA CGGCAATGTGGAGAAAGATGAATCCTGGGTTCCA GTAAGTTGACATGCAGTTTGC TCTAAAATGCAGAGTCCTCTGTTTTTTGTGTGTTCTTGTGCTTTAATGACGATGATA ATGAAATTGAAATTTGTAATAGCTGCCGGAGAAGGTGTACAAGAGCTTGGATACC GGCACCAAGTTCATGAGGTTACCATCCCTCTCCCAATGTTTGCGTATCCTATCTA CTTGGTAAGTAAACAGACTGACTCCAAAGTAGGAATAATGACAATTTTGGACCC GACCTGGTTTGGTTGACTCGGGTCGATATGTTTCGGGTGGGTAATTACCCGATCTG GCGATGGGTGTGCGGCGGACATTGTCTTGCTCGTGGTCCACCCCGCTCCCAACCC GCCCCATTCTTGACGAAAAAGATTTCCGAATATGTATCAACAGAAAAATCTAGTT TTTATGTTACTAGTTTTCTGTATTTCCATGTTTTTTCTCAATTCTAGCCGGAATTTG AATTCAAACTGAAATCGGGTAATTCGTCCATAACAAAACGGAATTGGGCAGCC GTAATTAGTTGAACTAGACCTCAATTTTGGCGGAATTGGACCCGGCCATTTTTTA CGTTTGCAAAACGGAAAAACGTTTTTTCTTTTGTAAGCGCAAAATGAAAAACGTAT CTAGTGGAATTATTGGACCCATCTAGAATGGGTCCAATTCCACCCCAATTTCCGGCT CCAATTCATGCCCCGAAAAACACTACTGTCATGCATTTTAATCTTGTATGGTTTTAC CCCAATGGATGCAGCGATGGATCCGGACGATTTTTTAAAATATTATCGGGTTAAAT TTAAAAATATCTTAAAACTATAAGAAAAAAATAACCAATTTTAAAGAATAAAAG AACTGGACACATATGACGGGTGTCGTGGATGGATGTACTTGTCGCTCTATTAA AGGCTGATAATATACAGGTCAACGGTGAATGAAGGTTAGATGCGCTATTGGATTT GAATCCGATATGAAATGATAATTTTGGACACGATCTGTTTTGGGTGGGTAATATTT GATCTAGGGATGGCTCGTGCTCCAAACCGCACCAAAACCGCCTAATTCTCGACCA AAAAGATTTTATGAATACATATCAACAGAAAAATCTAGTTTTCATGTTACTAGTTT TATGTACAACAATATTAGGTGTCGTTTTCCAGCCTTTTTCTTCAATTCCGGCCGGA ATTCGCATTCAAACCGGAATTGGATGGAATCGGTATACCTCGTCACGGATGCATT GTCAATTCCTAGTTAGTTTCATGTTTTTGAAACCAATCAATCTATTCTATATGGTTT TGATTAACAGTGGAGGAGAAGTCCGGGGAAGAAAGGGTCGCATTTCAACCCATA CAGTGACCTGTTTCGCACCGAACGAGAGGACATCGGTTCATGATTCGACATTGTGC TGGACAGCCATGGCCTTACTCCTCTGCTACTCATCGTTCATCTACGGCTTCCTTCCG GTCTTCAAAATCTACGGCGTCCCTTATCTAATATTCGTGGCGTGGCTCGACATGGT GACCTACCTTCACCACCACGGGTACGAGCAGAAGCTGCCGTGGTACAGAGGCAA AGAGTGGAGCTACCTACGTGGAGGGCTGACGACCGTCGATCGAGATTACGGGGT CATCAACAACATCCACCATGACATTGGCACCCATGTTATTACCATCTCTTCCCTC AAATGCCACACTATCACCTAGTCGAAGCGGTAAGGAGGTCTTGATTATTAACCTTA ATGTTTTTGTGTTATAATTTGAGTCCGATTCTGGAGTCAGGGGATTTCTTCTTGG ATCCGATCCAGGATCAAGCTGGTCCCTTGAATTTCTATATGATCTTATATTAATTA AGGATAATGTGGTCATATGTTTTTAAATATTTTTGTTTACCATCATTTTCGATCACC </p>

	GGAAAATGTCCTGAGCAGTTTTCCGGTCACTTTAACCTCCATTGACAAATTTTTTC ACCCACATGATCACCTAGCCGGGTTTACGTTTATTGAAAATTTTTATTTTTTTGAA TTTTTTTTTCGATGACCAACTGTACAACTTTGTATTGAAAGTTGTATGGATCATACA AATGTGTATGTACAAAAGTATATTCTAAGTACTATACTAAGCATTACTTAGTATTA CGTTTCTACAAACCTATAGAGAAATGCATACAATTTTGTATAGAACTTAGTATAC ACGTAGCTGTGAAATGTCAATTTCCCTCCGTATTTTCAGAGACAAGACATGATTTT TAGACTGGCAGATTTTTTTTATCGGATAGATTTCTCCAACCTTCAGATTTCGGACTGG ATTATTA ACTATATTATTCATCAACTCTGACGTTTGATGTTGCATGTGACAGACTC AGGCAGCGAAGCACGTGCTGGGGAAGTACTACAGAGAACC GAAGAAATCAGGG CCTTTCCCATTCCACTTGTTTGGGTACTTGGTGAGGAGCCTGGGCGAGGATCACTA CGTTAGCGATACAGGCGACGTCGTTTTCTATCAATCTGACCCACATATTCCCAAGT TCCCTACCAGTGCCACCACCAAGTCCAAATCTAGCTGA
<i>FAD3b</i>	ATGAGCCCTCCAAACTCAATGAGTCCCACCACCAACGGCAATGGTGTGGCTATGA ATGGGGCGAAGAAGCAGCTCGATTTTCGACCCGAGTGCTGCCCCCCTTTCAAGAT TGCAGACATCCGTGCTGCAATTCCGCCGCATTGCTGGGTGAAGAACCCTGGAGG TCGCTCAGCTACGTCCTGAGAGACCTCCTTGTCATCCTCAGCTTCGCCGTTGCGGC GGCAAAGCTGGACAGCTGGACTTTCTGGCCTCTTACTGGGTTGCTCAAGGAACC ATGTTCTGGGCAGTCTTTGTTCTTGACATGATTGGTAAACTAATTTACATTTTCT TTCTGGTAATGTGGGTTTTATTGAAAAAGATTAAAACTTTTTATCTGGGTTGTTGCA TGCAGTGGCCATGGGAGCTTCTCAGACATCTGGTTGTTGAACAATGTGATGGGAC ATATACTCCATTCTCAATCCTCGTACCTTACCATGGATGGTATTGTA ACTATTGTT CAATATTAGATTATTGCTAGTTCTTCAGCTGAAGAATCCAAACCCTAATTTTCTTTT TCTGAATATTGACCAGGAGAATTAGCCACAAGACCCATCACCAGAATCACGGCA ATGTGGAGAAAGATGAATCCTGGGTTCCTGTAAGTTGACATGCAGTTTGCTGTAA AAATGCAGAGTGCTCTGTTTTTTTGTGTTCTTGTCCTTAATGGTGATAATAATGAA ATTGTTGAAATGTAACAGCTACCGGAGAAAGTGTACAAGAGCTTGGATACCAGC ACTAAGTTCATGAGGTTACCATTCCTCTCCCAATGTTTGCTTATCCTATCTACTTG GTAAGTAAAGAGACTGATAAGACTCCAAAGTAGGAATTAATGACAATTTTGGAC CCGAGCTTCCGACTCGGGTCGATTTATTTCCGGTGGGTACTTACCCGATGCGGCGG ACATTGTTTTGCTCGTGGTCCACCTCGCTCCCAACCCGCCCCATTCTTGACGAAAA AGATTACGGAATATGTATCAACAGAAATATCTAGTTTTATGTTACTAGTTTTCTGT ATTTCCGTGTTTTTCCCCTCAATTCGGTCAGAAATTTGAATTCAAACTGACATTGGG TAATTCTGTCCATAAGAGAACGGAATTGGGAAGCCGTAATTAGTTGGAATTAGAC CTCGATTTTCGGCGGAATTGGACCCGCCATTTTTTCGCGTCCGGAAAAGCGTTTCCA GTGGAGTTAGACGCCCATCTAGAATGGGTCCAATTCCACCCCAATTTTCGGGGCTA CCTATTTTTAGTGTACATGCATTTTAGATCTTTTACGGTCTTACCCCGATGGATATT CTTGTCGCGCTCTATTA AAAACTGACAATATACAGGTTGATTGTGAATGAAGATT AGGTGCTGCACGCTCTTCGTGTTCCAACCCGCACCCAAACCGCCCCATTCTCGAC CGAAAAGATTTTATGAATACATATCTACAGAAAAATCTAGTTGTCATGTC ACTAG TTTAATGTACAACAGTATAGGTGTCGTTTTCCGCGTCTTTTTCTTCAATTCCGGCTG GAATTTCGATTCAAACAGGAATTGGATGGAATTGGTCCCGGATGCATAGTCATTT CCCAGGCAGTTTCATGGTTTTATAACCAATCAATCTAATCTTATGCTTTTGATAAA CAGTGGACGAGAAGTCCGGGGAAGAAAGGGTCGCATTTCAACCCATACAGCGAC CTATTTCGACCAAACGAGAGGGCAGCGGTCTTGATTTC AACATTGTGCTGGACAG CCATGGCCTTACTCCTCTGCTACTCATCGTTCATATACGGCTTCGCTCCGGTCCCTCA AAATCTACGGCGTACCTTATCTGATATTCGTGGCATGGCTCGACATGGTGACCTAC CTTCATCACCACGGGTACGAGCAGAAGCTGCCGTGGTACAGAGGCAAAGAATGG AGCTACCTACGTGGAGGGCTGACGACCGTTGATCGAGATTACGGGGTCATCAACA ACATCCACCATGACATTGGCACCCATGTCATTACCATCTCTTCCCTCAAATGCCA CACTATCACCTTGTGGAAGCGGTAAACAATTTGATTATTAATTTACTGTTTTTGTG TTATAATTTGAGTCGGGAGATTTCTTCCTAAATCCGATCCCTGGTCAATCTTGGC CCTTGAATCTTCATATAATCTAAAAATCTAGATTAATCAGGAACAATATGATCAT GTTGTTTAAACTAATTTTGTGACCATAACCTACCGCCA ACTGATGGACCACCGT

	CTCTGGTTACCGGACCCATCATTTCCGGTTACCAAGAAGTTTCTCGATCAGTTTTC CGGTTACTTTGACCTGCGTTGAGGAAAATTCTTTCACCCACGTAACACTGTCGTC AACTTTACGTTTCTGGAAAGTTTTTCCGATGATTGGCCGTACAATTTGTACGAAG AGTTGTACGGATCATATAAATGTGTATAAGTTTCTAGAAATCCGTACTGAAATAT ATACATATTTGACTTTTGTATAAAGTGTAATACTAAATACTATACTAAGTGCTGTA CTCAGTATGATACTTAGTACACACATTTGTATGACTATGAAATGTCAATTTTGCCC TTATATTCTCAGCCGTTAGATCTAAGACACAGTTTTTATACGGCTGAAATTTGTGG GGGCTTTGTAGATCGGATCCATAAGTCATTTCTTGGCTCAAGATTCGGACTCGATT ATTAACATATATTATTCATCAACTCTGACGTTTGATGTTGCATGTGACAGACTCAGG CAGCGAAGCACGTGCTGGGGAAGTACTACAGAGAGCCGAAGAAATCAGGGCCTT TCCCATTCCACTTGTTTGGGTACTTGGTAAGGAGCCTGGGCGAGGATCACTACGTT AGCGACACAGGCGACGTCGTTTTCTATCAGTCTGACCCACATATTCCCAAGTTCCG TACCAGCAGTGCCACCACCAAGTCCAAATCCAGCTGA
<i>FAD3c-1</i> (wrong sequence, but CDS is not affected)	ATGAGCCCTCCAAACTCCATGGGAATGGAAGCTGCTCATCCTACCGGCAACGGC AATGGCGTCGCAGTCATGAACGGCGCCTCCGCTAACAAACCCGATTTTCGATCCCA GCGAGGCTCCTCCCTTCAAGATTGCCGACATCCGAGCCGCCATCCCCCGCATTG CTGGGTGAAGAATCCATGGAGGTCTCTTAGCTACGTCCTTAGGGACGCCGTCGTC ATTCTCGCATTCGCAGCTGCCGCCCTCAAGCTCGACCTCTGGGCTGTTTGGCCGCT CTACTGGATCGCTCAGGGCACCATGTTTTGGGCTGTCTTCGTTCTCGGCCACGATT GGTAAGAGGAGGAGGTTTTTTTTTAAATTTCAATCCGATGCTGTTTTGTATATTA TTGGTTGATATGATATATAAGATTAACCCTAGAGAAAAGTGAAAAGCATCCGCCA TTGTTGAATGAATTGGAATTGGATGGTGACGCGCCATGGGAGTTTCTCGGATAG CTGGTGGCTGAACAATGTGGTGGGGCATATTCTGCATTCTGCAATCCTTGTGCCTT ACCATGGATGGTAAGAAAAGAATATGAACAGATCCTTTATCCTTACAACGTGAAA ATGTAGGTCATTGAGCTGAACTAAAGTCACATTCTGTGTTGTTAATTGATTGAAC AGGAGAATTAGCCACAAAACACACCACCAGAATCATGGCAATGTTGAGAAAGAT GAATCATGGGTTCGGTGAGTTTTATTTCATTTTTCTCTCGTCAATTGGCATCAGT TTGTTCTGTTTCAATGCTTGATATGAATTGGGTGATATAATGCAGCTGCCGGAGAA AGTATACAAGACCCTGGACACAAGCACCAAAATTCATGAGGTTCACTATCCCTCTC CCAATGTTTGCTTATCCTATCTACTTGGTAAGAACCACCCACATTCTTACATCCTT GCATGTTGTGATTGGTTTCTGGTTGGATTGGATTGAGATTGGGGAATTGATTGT GTGCCTTTGAAATGAATGAATGGTTACAGTGGACGAGGAGCCAGGGAAGAAAG GGTCCCATTTCACCCCTACAGTGACCTGTTTGCCCCACAAGAAAGGAAATCAGT CTTAATCTCTACCATCTCTTGGATTTCATGGTCCTAATCCTCCTCTACGCCTCCTT CCTTTTTGGTTTCTCTACTGTCTTCAAAGTCTATACCGTCCCTTACCTGGTAAACT ACTATCTCCAAATTCAACAATCTGTAAGCTTCATTTCAATTTGCTTTGGCTCCTGAGT TCCCTGTCAAGTTTCTCCTAGCAGTGTAACCTTGTTATTTGATAACTTTGTGCCATCT CACTATTGGCTGCATTTTACTATAATCAAAGTCTACATACGTTATTGCAACTTGTT AATCCTTGGTACGAGGAATCCAATGAATAGGATGGTGATTAGCACAAACAAGGC TGAAACTTTGAGCAATTTTGCAAGATATTTGTGGCGTGGCTGGACATGGTGACATAC CTGCACCACCACGGGCACGAAGAGAAGCTGCCGTGGTACAGAGGTCAAGAGTGG AGCTACCTACGTGGAGGGCTGACAACCGTAGATAGAGATTACGGGATTATCAAC AACATCCACCACGACATTGGCACTCACGTGATTACCATCTGTTCCTTCAAATCCC TCACTACCATCTCGTAGAAGCGGTACAGTAGTAGTAAACAAAACCCCATATTATT ATTACTTACTGCAGTGATTTCTGACTCTATATTATTAATATCACTTCTGGGTTTTT GGCCGCGGGGGGGGGGGGGGGGGGGTGTGGTTTTTTTTGTCTTTTTTTAATTTT TTTTTTTTTTAATATTGTGGGTGATAGAATTATTATTAATGTTGGCAGACAAAG GCAGCAAAGTCGGTGCTTGGGAAGTACTACAGAGAGCCAAAGAAATCAGGACC ATTCCCATTCCACTTGTTTCGACAACTTAGTGAGAAGCCTTGGCGAAGATCACTATG TTAGTGATGCAGGGGATGTCGTGTTCTATCAGTCTGACCCAGAAATCTTCAAGTTT TCCAAGTCCAAGTCAGCCTAA
<i>FAD3c-2</i>	ATGGGAATGGAAGCTGCTCATCCTACCGGCAACGGCAATGGCGTCGCCGTCATGA ATGGCTCCGCCGCTAACAAACCCGATTTTCGATCCAGCGAGGCTCCTCCGTTCAA

	<p> GATTGCCGACATCCGAGCCGCCATCCCTCCGCATTGCTGGGTGAAGAATCCATGG AGGTCACTCAGTTACGTCCTTAGGGATGCCGTTGTCATTCTCGCATTGCCGCTGC CGCACTCAAGCTCGACCTCTGGGCTGTTTGGCCGCTCTACTGGATCGCTCAGGGC ACCATGTTTTGGGCTGTCTTCGTTCTCGGCCACGATTGGTAAGAGGAGGAGTTGTT TTTTTTAAATATTTATCCGATGCTGTTTTGTTATATTATTGGTTGATATGTAAGATTA ACCCTAGAAAAAAGTGGAACCGTCCGCCATTGTTGAATTGAATTGGAATTGGAT GGTGCA GCGGCCATGGGAGTTTCTCGGATAGCTGGTTGCTGAACAATGTGGTGGG GCATATCCTGCATTCTGCAATCCTTGTACCTTACCATGGATGGTAAGAAAAGAAT ATGAACAGATCCTTTATCCTTGAAACGGTAAATGTAGGTTATTCAGCTGAAACA AAAGTGACATCCTGTGTTGTTCTTTATTGATTGAACA GGAGAATTAGTCACAAAA CTCATCACCAGAATCATGGCAATGTTGAGAAAGATGAATCATGGGTTCCGGTGGG TTTTATTCTCTTCCTTACTTGTCAATTTGCCATCATTGTCTGTTTCACTGATTGAC ATGAATTGGGTGGGAAAATGCAGCTGCCAGAGAAAGTGTACAAGACTCTGGACA CAAGCACAAAATTCATGAGGTTCACTATCCCTCTCCAATGTTTGCTTATCCTATC TACTTGGTAAGAACCACCCTACATTCTCACATCCTTGCATGTTGTGTATTGGTTTCT GGTTGGATTGGATTGAGTTTGGGAAATTGATTGTGTGCATATGAAATGAATGA ATGGTTACAGTGGACAAGAAGCCCAGGGAAGAAAGGGTCCCATTTCATCCCTA CAGTGACCTGTTTGCCCCACAGGAAAGGAAATCAGTCTTAATCTCTACCATCTCTT GGATTTCATGGTCTAATCCTCCTCTACGCTCCTTCTTCTATTGGCTTCCTCACAG TCTTCAAAGTCTATACCGTCCCTTACCTGGTAAAACTCCACCCTTGGTTTACTAG CTTCAAATTCAACAATCTATCAGCTTCATTTCAATTTGCTTTGGCTCCTAAGTCCCT CTTAAGTTTCTCGTAGCAGAGTAACTTGTCTATTTGTTAACTTTGTGCCATCTCCCT ATTGGGTGCATTTCACTATAATCAAACCTGCTACATGCATACTGGAATGTCCATATT GTAATTTGCTATAATCCTTGGTACGAGAATCCAATGAATAGGATGGTGATTAGAA CAAGAAAGACTGAAACTTTGAGCAAATTTTGCA GATATTTGTGGCGTGGCTGGAC ATGGTGACATACCTGCACCACCACGGGCACGAAGAGAAGCTGCCGTGGTACAGA GGCAAAGAGTGGAGCTACCTACGTGGAGGGCTGACAACCGTAGATAGAGATTAC GGGATTATCAACAACATCCACCACGACATTGGCACTCACGTGATTACCCACCTCT TCCCTCAAATCCCTCACTACCATCTCGTAGAAGCGGTAAGTGTAGTAAACAAAACC CATATTATTATTACTTACTGCAGTGATTCTGACTATGTTATTATTAAATATCAGTT CTGGGTTTTGGCCTTTGGGGGGGTTGGTTTGGATCTTTGGCACTTATAATATTATTA AAATGGTGGCA GACAAAGGCAGCAAAGTCGGTGCTTGGGAAGTACTACAGAGA GCCAAAGAAATCAGGGCCATTCCCATTCCACTTGTTGACAACCTTAGTGAGAAGC CTTGCGGAAGATCACTATGTTAGTGATGCAGGGGATGTCGTGTTCTATCAGTCTGA CCCAGACATCTTCAAGTTTCCAAGTCCAAGTCAGCCTAA </p>
FAD3d-1	<p> ATGGCGAGCTGGGTTCTATCAGAATGCGGCATAAAGCCACTCCCTTCCGCCTTCC CTAAGCCCAGAACCGGAGCGCTTTCCCGAAATACCCTCCCCAAGCTCAGGTATTT ACCCCCGAGGAGCAATCTCTCCGCCGCTGCCGACGGCGGCCTCAGATCTAAGC CTTAACCTACCTAAATTATCCTCCGTAGAGAAGAAAAAGCCGCTTTTGGGACAGG TGAGAGTTACTGCTCCGTTCAAGGTCGCTCCGGTGAAGGAGGAAGACGGAGAAG GAGAGTCCAATTCGACCCAGGAGCGCCGCCGCGTTCAATTTGGCCGACATTCCG AGCTGCTATACCCAAGCATTGCTGGGTAAAGATCCATGGAGGTCAATGGCTTAC GTGGCGAGGGACGTGGCCGTTGTTCTCGGATTGGCAGCTGCCGCAGCTTATCTGA ACAATTGGATCGTTTGGCCGCTGTATTGGGCGGCTCAGGGGACCATGTTCTGGGCT CTCTTTGTTCTTGGCCATGACTGGTGAGTAAAGTTGTTAACTTTCTCTTTGGTCTTTT ATGCTAATCTTTGTAATAATGGAATAATTGAAGAAAAATTCTCATGTTTGGCAGTG GACATGGGAGCTTTTCAAGCAATCACAAGCTGAACAGTGTAGTTGGACACATTCT CCATTCTTCAATTCTTGTGCCTTACCATGGATGGTAACTAAAGCTCTCTGCTTTCCT CTGCCCATCTGTCAATTTGTTCTTCAATTTTGAAGCAATTTGAAACAAATTTGTAT CAATGTCTTTACAGGAGAATTAGCCATAGGACGCATCATCAGAACCATGGACATG TTGAGAACGATGAGTCATGGCATCCTGTGAGTCTTTGTTTCTAAATCTTATCTATA GGATTGATTCAGATGCTGATGTACTAATTTCTGTGACTTTTTCTGTTTTGTTTCTGTT CTTGAAGTTGTCTGAGAAGATATTCAGGAGCTTGGATGCTACAACCTCGAAGTATG </p>

	AGGTTACATTGCCTTTCCCATGCTTGCTTATCCTTTCTATCTGGTGAGTTTGTATC TACAAGAAAGTTCCTTTACAAAATGTGGATTTAGTTAACAGAAGCTAAAAGGGTT CTTTCTTCTTGTTCCGTAATGCAGTGAACCGGAGTCCTGGAAAAAAGGGGTCTC ATTTCGACCCGAGTAGTGATTGTGTTGTGGCGAGTGAGAAGAAAGATGTGATCAC TTCCACTGTTTGTGGACAGCTATGGCTGCTTTGCTCGCAGGCTTGTCCTTTGTAAT GGGTCCAATTCAGATGATCAAGCTATACGGAATTCCATATTGGGTATAGACAACA TCTTTTGCCTTATCTTGCAAACCTTGTTGTTTCAACTCTCAACCAACCACTCTGCCTC TTGGATGTTTTTGTAGGGGATTGTATGTGGTTGGATTTTGTAACTTACTTGCATCA CCATGGTCACGACGATAAGCTTCCTTGGTACCGCGGCAAGGTAATCCATGTTCTTT CCTCCTGTGTCCATCTATCTGGTCTTTTCATGTTGAATCACTATATCCTAAAATCTTT TCAATGTATAATTATTGATTCAAACCAAATGAAAAGTCAATTGTTTTGAGATGTCT TTCTAGACTTTCAGTGAGATTTTGTGAACTTATGCTTGGAACCTTGGAACAGGAAT GGAGTTACTTGAGAGGAGGGTTAACCACCATTGATAGAGACTATGGATGGATCA ACAACATCCACCACGATATTGGAACCCATGTTATTCACCATCTCTTCCCACAAATC CCTCACTACCACTTGATTGAAGCAGTAAGCAATAACTTTCCTTTTTCCCTTTAGTTC CATATGCAATCTCTTCAATGGGGACACTGAGAAAAAGAAACAAACTTTGACCTG AAAACAAATATCATGATGTTTCAGACGGAAGCTGCAAAGCCAGTGCTTGGGAAG TACTACAAGGAACCAGCAAAATCAAAGCCGCTCCCTTTCCACCTAATCGGAGACT TGATAAAGAGCTTGAAGAGAGACCATTATGTTAGTGACACCGGAGATGTCGTCTA CTATCAAACCTGACCCTGAACTCCAAAGACCTCATCATCATCATGA
<i>FAD3d-2</i> (wrong sequence)	ATGGCGAGCTGGGTTCTATCAGAATGCGGCATAAAGCCACTCCCTTCCGCCTTCC CTAAGCCCAGAACCGGAGCGCTTTCCCGAAATACCCTCCCCAAGCTCAGGTATTT ACCCCCGAGGAGCAATCTCTCCGCCGCTGCCGACGGCGGCGCCTCAGATCTAAGC CTTGTCGTGGTATTGCAGGCTGCCGCAGCTTTTCTGAACAATTGGATTGTTTGGCC GCTGTATTGGGCGGCTCAGGGGACTATGTTCTGGGCTCTCTTTGTTCTTGGCCATG ACTGGTGAGTGAAAATTCTCAATTTTCGCTACTGTGATTACTAATCTGATGTAAAA AGTGGGTGGAAAGTTCTCATTTTTCTTTTGCAGTGGACATGGGAGCTTTTCAAGC AATCACAAGCTGAACAGTGAGTTGGACACATTCTGCATTCTTCAATTCTTGTCCT TTACCATGGATGGTAAAAAGCTCTCTGCTTTCCTCTGCTCATCCGCCATTTTGTCT TCAAGTTTGAAGCAATTGAAAAATAATTGTATCAATGTCTTTACAGGAGAATTA GCCATAGGACGCATCATCAGAACCACGGCCACGTTGAGAACGATGAGTCATGGC ATCCTGTGAGTCTTTGTATCTAAATCTTAGCCATAGGGTTGATTGAGATGCCGATG TACTAATTTCTGTGACTTTGTTTTGTTTCTGTTCTTGAAGTTGTCTGAGAAGATATTC AGGAGCTTGGATGCTACAACCTCGAAGTATGAGGTTACATTGCCTTTCCCATGCT TGCTTATCCTTTCTATCTGGTGAGTTTGTAGCTGCAAGTAAGTTTCTTTACAAAATA TGGATTTAGTTAACGAAGCTAAAAGGGTTATTTCTCCTAATGCAGTGGAACAGGA GTCCTGGGAAAAAGGGGTCTCATTTTCGACCCGAGTAGCGATTTGTTTGTGGCGAG TGAGAAGAAAGATGTGATCACTTCCACTGTTTGTGGACAGCCATGGCTGCTTTGC TCGACGGCTTGTCTTTGTAATGGGTCCAATTCAGATGATCAAGCTCTACGGAATT CCATATTGGGTATAGACAACATCTTTTGCTTATCTTACAGACTTGTTGTTTCAACT CTCAACCAACCACTCTGCCTCTTTGATGTTTTTGTAGGGATTTGTTATGTGGTTGGA TTTTCGTAACCTTACTTGCATCACCATGGTCACGACGATAAGCTTCCTTGGTACCGCG GCAAGGTAATCAATGTTCTTTGCTCCTGCGTCTATCTATCTAGTCTTTCATGTTTAA TCACTATATCCTAAAATCTTTTCAATGTATAATTCTTGATTCAAACCCGATGAAAA GTCAATTGCTTTGAGATGTCTTTCTAGGCTTTCAGTGACATTTTGTGAACTTGTGC TTGGAACCTGGAACAGGAATGGAATTACTTGAGAGGAGGGCTAACCACCATTGA TAGAGACTATGGATGGATCAACAACATCCACCACGATATTGGAACCCATGTCATT CACCATCTCTTCCCACAAATCCCTCACTACCACTTGATTGAAGCAGTAAGCACTA ACGTCCCATTTTCCCTTTAGTTCCTATACGCAATCTCTTCAATGGGGAAACTGAGAA AAAGAAACGAACCTTGACCTGAAAACAAATATCATGATATTTACAGACGGAAGCT GCAAAGCCAGTGCTCGGGAAGTACTACAAGGAACCGCGGAAATCAAAGCCGCTC CCTTTCCACCTAATCGGAGACTTGATAAAGAGCTTGAAGAGAGACCATTATGTTA

	GTGACACCGGAGATGTCGTGTACTATCAAACCGACCCCGAACTCCAAAGACCCTCATCATCATGA
SAD2-1	<p>ATGGCTCTCAAGCTCAACCCAGTCACCACCTTCCCTTCAACACGCTCCCTCAACA ACTTCTCCTCCAGATCTCCTCGCACCTTTCTCATGGCTGCTTCCACTTCAATTCCA CCTCCACCAAGTAAGCATCTCCTCCTCCTCGGAATCTCCGCCGATTTCTTTAAGC GATTGATCGTAGATAAAATTTGTCGGTTGCTTACCGTTCATCAAAATCTGCACGGTT CGTTTCTTCTTCTGCGCCTAGATTGCATTATGTCATTGTTTCGTTTTCCGATTTGACTG ACCGACATAAATCAATTCCTTTGTGTTTCACGATTCTGGGTTTTGCGCTGTAATTGA TTGTCAGTGTGTTGCACAGGTTTCCCCTTCTCCTCCTCCGTCCATCAAATGCATGTTA TTACCATTTCAATTTCAGTTTCCTTCTCTGAAATATCCGTCTCTGGGAAAATAAGTC TCTGTATCTACTATCCTATCAGCTTGTTTAGGAGAGGTTTCGATATTCGTTTACATAA ACCAATTGGCTTACAGTCCTTGAACGTTCTAAATGTTGGTCGCGGTGATAATAGGT TCTCAAAAGAGGTTTGTCTATGTTGTTGGCAAAATCTTGTTTCTGTGAATCATGTT TAAGGTCCTTGGAAGAATGACTAATGAGCTATGACATGATTACGACGTAGTAGTT ATTGAACTGCTGATAATTCAATATAGGGGTAACTTTGTTGATTGTTTGGTCACAGG GAGGCTGAGAAGCTAAAGAAGTCACATGGACCACCAAAAGAGGTGCATATGCA AGTGACCCATTCCATGCCCCACAGAAGCTGGAGATATTTAAGTCTCTGGAAGGT TGGGCTGAGGATGTTCTATTACCGCACCTGAAGCCAGTTGAGAAATGCTGGCAGC CACAGGATTTCTGCCCCGAACCTGAGTCGGATGGGTTTCGAGGAGCAAGTGAAGG AGCTCAGGGCAAGGGCCAAAGAAGTCCCCGATGACTATTTTGTTGTGCTGGTTGG GGATATGATCACCGAAGAAGCTCTGCCGACTTACCAGACAATGCTCAACACCCTT GACGGGGTGAGGGACGAGACTGGAGCCAGCCTTACGCCGTGGGCAATCTGGACA AGGGCGTGGACCGCTGAAGAGAATAGGCACGGTGACCTTCTCAACAAGTATCTA TACCTCTCTGGAAGGGTGGACATGAGGCAAATTGAAAAGACCATTTCAGTATCTCA TCGGCTCTGGAATGGTATGTAATCACATACTTCATCCTTTTCTATTAATCTTTGCGT GAACAAAATTCACTACACTGGTAGCAGCTGAACTTTAGATGATTTTTTTTACTGC CTAGCTTCTATGAAACAAAACCACGTAAGTCAAATAGGGTTGACAATGAGTTCAA GTGGCAAAATTTTTCTTATATACCAACTTCGAACCACCTTATATGACATACCAACT CCTAGTTTCGGTTAAAATTCCTCCGTCGAAGATATAATACTTGGATTGGTTAAATGA ATTGTGAAAGGATACACGTGATGTGGTCTGGAATTAATTTGTTTGAATGATCAGTT GGGTTTCGGGGCGACAACCTGTGAACTGGAACCACCCTAAGTAAATTTTCTTTCTGTC CTACAAATTTGAGGTTCTCCTTGATCACCTTAGTCCATCTTAGGTTTGCCCGTTAGT AAGATCTGCATTTAGCAGTTTGTCTGGTATTTGATATCACTAGTATCTTTGTTTGA TTCCCTAGCATCTCTGAAACCATCGGACAAGTAGGTGGTTTAGGACAAATTTGGTT CATTGCGGCATTTTTTTGTTTGTATCGCCGTATCATCTGGAAGAAGCAGACAGTTTT GCAAAGTGGCATCAAGCTCAAGAAAGCAACGGCTAGAAGAAGTTCTACATCTGA TGCTTTCCTTTTGTCTTTGTGTGCTTTTTGGACTTTGTTCTTTTTCTGTAGGATC CAAAAACAGAAAACAACCCCTACCTCGGTTTCATCTACACCTCATTCCAAGAGAG GGCAACGTTTCATCTCCACGGAAACACAGCCAGACTCGCCAAGGACCATGGGGA CATGAAGCTGGCGCAGATCTGCGGGATCATCGCAGCAGACGAGAAACGGCACGA AACCGCATACACCAAGATCGTCGAGAAGCTCTTCGAGATCGACCCTGACGGTAC AGTGCTGGCACTGGCGGACATGATGAGGAAGAAGATATCGATGCCCGCCCACTT GATGTACGATGGAGAAGACGACAACCTCTTCGACAATTACTCGTCAGTCGCTCAA CGCATCGGGGTGTATACTGCCAAGGATTATGCCGATATCCTGGAGTTCCTGGTGG GGAGGTGGAAAGTGATGCTTTTACGGGGCTTTCGGGGGAAGGGAACAAAGCTC AGGATTTTGTCTGCGGGCTTCCTGCGAGGATTGCAAAGTTGGAGGAGAGGGCTGC GGGGAGGGCAAAGCAAACGTCGAAATCTGTCCCGTTCAGCTGGATCTTCAGCAG AGAATTGGTACTCTAA</p>
SAD2-2	<p>ATGGCTCTCAAGCTCAACCCAGTCACCACCTTCCCTTCGACCCGCTCCCTCAACA ACTTCTCCTCCAGATCTCCTCGCACCTTTCTCATGGCTGCTTCCACTTCAATTCCA CTTCCACCAAGTAAGTTCCCGTCACCATCTCCTCTTCCTCGGAATCTCCGCCGTTT ATTTAAGCGATTGATCGTAGAAAATCTGTTCGGTTGCTTAGCGTTTCATTCAAATCTG CGCGGTTTCGTTTCTTTTCTTCTTCAGACTGCCTCGTCTGCATTATGTTATTGTTTCG</p>

	<p> TTTTCCGATTTGACTAACCTACATAATCAATTCCTTTGTGTTTCACGAGTCTGGATTT TGCGCTGTAATTGATTGTCAGCGTTTGCACAGGTTTCCATTTCTCCACCTCCGTCCA TCAAATGCATGTTATTACCTACCAATTTACGCGTCTTTCTCTGGAAATTTCTGTCTC TGTATCTACTATCCTATTAGCTTGTTTGAGAGAGGTTCAATATTGGTTTGCATGAAC CAAGTGGCTTACAATCCTTCAACGTTCTAAATGTTGGTTCGCAGTAACAATAGGTTTC TCAAAAGAGGTTTTTCTATGTTGTTTGGCAAAATCTTGTTTCTGTGAATCATGTTAA GGTCCTGGGAAGAATGATTAATGAGCTATGACATGATTAAGGCGTAGTAGTTATT GAACTGCTGATAATTCAATATAGGGGTAACCTTTGTTGGTTGTTTGGTGACAGGGAG GCTGAGAAGCTAAAGAAGTCACATGGACCACCAAAAGAGGTCATATGCAAGTG ACCCATTCCATGCCCCACAGAAGCTGGAGATCTTTAAGTCCCTTGAAGGTTGGG CAGAGGACGTTCTGTTGCCGCACCTGAAGCCGTTGAGAAATGCTGGCAGCCACA AGATTTCTGCCCCGAACCCGAGTCGGATGGGTTTCGAGGAGCAAGTGAAGGAGCT CAGGGCAAGGGCTAAAGAACTCCCCGATGACTATTTTGTGTGCTGGTTGGGGAT ATGATCACCGAAGAAGCTCTACCGACTTACCAGACAATGCTCAACACCCTTGACG GGTGAGGGACGAGACTGGAGCCAGCCTTACGCCGTGGGCAATCTGGACAAGGG CGTGGAACCGCTGAAGAGAATAGGCACGGTGACCTTCTCAACAAGTATCTTTACCT CTCTGGAAGGGTGGACATGAGGCAAATTGAAAAGACCATTAGTATCTCATCGGC TCTGGAATGGTATGTACTCACATCCTATCTGCTCCTTTATCCTTTTCCATTAATCTTT GATTGAACAAAATTCAATAAACTGGTAGCTGAACTTTAGATGATTTGTTATAAC TGCCTAGCTTCTATGAGAAAACCACTGAAGTCAAATAGGTTTGACAATGGGTTTA AATGGAAAAAGTTTCATATACCATCTTCCATCTATTTTACATGACATACCAACTTC TACTTCGGAGAAAATTCGCCGTGGATAATCATATTATTGAAGATATAGTACTTAGT AGATTGGTTAGATGAACTGTTAAACAATACATGTGATGTCGTGTGCAATTAATTTG TGTAATGATTAGCTGGGTTCCGGACGACAAATGTGAACTGGAACCCTAGTAAAC TATGAATTGAGGTTGTCTTCATCACTTATTCTGTCTGGGTTTGTTCCTGTTTG CAAGATCTGCATGTAGCAGTTTGTCTGGTATTTGCTACCAGTGGTATCTTTGTTTG ATTCCCTAGCATCTCTGAAAACATCGGACCAAGTATCTGGTTAGGACAAATTTGG TTCATTGCGGCATTTTTTGTGTGTATCGCTGTATCGTCTGGAAGAAGCAGACAGTTT TGCAAAGTGGCATCAAGCTCAAGAAAGCAACGGCTAGAAGAAGTTCTACATCTG ATGCGTTCCTTTTGTTCCTTGTGTGCTTTTGGACTTTGTTCTTTTGCCTGTAGGAT CCAAAAACAGAAAACAACCCCTACCTCGGTTTCATCTACACCTCATTTCCAAGAGA GGGCAACGTTTCATCTCCACGGAATACGGCCAGACTCGCCAAGGACCACGGGG ACATGAAGCTGGCGCAGATCTGCGGGATCATCGCAGCAGACGAGAAGCGGCACG AAACAGCATAACCAAGATCGTCGAGAAGCTCTTCGAGATCGACCCTGACAGTA CAGTGTTGGCTCTGGCGGACATGATGAGGAAGAAGATATCGATGCCCGCACACTT GATGTACGATGGAGAAGACGACAACCTCTTCGACAATTACTCGTCGGTTCGCTCAA CGCATCGGGGTGTATACTGCCAAGGATTATGCTGATATCCTGGAGTTCCTGGTGG GGAGGTGGAAAGTGGATGCTTTTACGGGACTTTCCGGGGAAGGGAACAAAGCTC AGGAGTTTGTCTGTGGGCTTCCAGCGAGGATTGCAAAATTGGAGGAGAGGGCTGC GGGGAGGGCAAAGCAAACGTCGAAATCTGTCCCATTCAGCTGGATCTTCAGCAG AGAATTGGTACTCTAA </p>
SAD3-1	<p> ATGCAAGCCACCCACCACGTCAGCGCCACCGTCCAGCATGGATGCCACGTGGT GGCCGAACCACCTCCACCATCATATGCACCTCTGCCCTCCACGCGCCGCCATCA AAACTGCTCCGCCGCCTCCCCCTCCGCTCACCTGAAACACCAACACAAAACCCA CACAATGCCGGCGGAGAAAATCGAGCTTTTCAAGTCCCTCGAGGATTGGGCCTCC GAGAATGTCCTCCCACTTCTCAAGCCCGTCAATAAATGCTGGCAGCCTCAGGACT TCCTCCCCGACCCGTCCCTCTCCGTCGCTGATTTCTCCGACGAGGTAATGAACAAT TGCGTCTCAATACCTTGTATAAGCTACACTTTTACAGGGATTTTGAGCTAATATTT GACAAATTCATCAGTTAGGTTTTTGTGATTACGGATTAGTCATTGTAGTTTTGTCA TTTGTTCATATAGCTACTCATTTTTTTCAGTTCATCAAATTCTCATTTTCTATAGTAAG ATCATTTGGAAGGGTTTTTGGAGAGTAATTTCTTGGTCCCAGATGATTTGATCGAAA TATCATTTTAGAATACAAAATAAATTGGGATTTGAAATCACCTCGATAGGTTAG GTTTCCCAAAGGTGATTTTCAGGCTCCCAAAGGTCCCAAAGGTGATTTCAAAT </p>

	<p>TCATTTTATGGACTTGAGATTTATAAAATCTCAAGTAATTTGAATAGTAAATGATC AAATTATCTTGTTGAGTTTAAGTGAACGAGATAAAATTAAGAGGTGCATTAGTCATT TAAAAAATCAATTTTTTTTTTTAATTTTCAAAACTATTTTGTGATTGACCGTTAAACC AGTTCGGTTTGATACTGATTTTGAGTTTGACTGACAGGTGAGGTTGTTGAGGGAA AGGACGGCGGAGCTACCGGACGAGTACTTCGTCGTCCTTGGTGGGTGACATGATAA CGGAGGATGCGTTACCGACGTACGAGACCATGATCAACACACTTGACGGCGTTA GGGACGAGACGGGCGCCAGTCAAAGCCCATGGGCCTTATGGACCCGGGCCTGGA CCGCCGAGGAGAATCGCCACGGCGATCTGCTTCGGACCTTTCTGTACCTATCGGG TCGGGTCGACATGAGGATGGTAGAAAGGACTGTTCAGTACCTCATTGGATCTGGC ATGGTAAGTGTAGAATAGCCCTTTCGGTATTCCGAACCGGTTTGATCCGTCAGTGG GATCTTTCGTTGATTAATCGGGTGATGAGTATGCCAACTGGCACTAATTTATCA CTTGATTTGATAGTACATTTTATAAGCTAGTGTTAGCTAGTTACATTGTTTGAGAAT GTCACGAATTCTGAAGGAGAAAAAAACCAAAATGCCACTTCGATAATTTATTTTAC ATGATATAGTCATTGAACCTTCAATCTTTTTACAAATCGGATCCAAATTTGTGTAC GCAGTGGTCACTCAACTGTCATTTTAGAATAGGAATAGCATTTTAACAAGTGATT ACTCGGGTCGGGTAACATTACAGGACCCGGGCACAGAGAACAACCCGTACTTGG GGTTCGTGTACACGTCATTCCAGGAGCGAGCCACATTCATATCGCACGGCAACAC GGCTCGGCTAGCCAAGGAGGGAGGGGATCCGGTACTCGCACGGATATGTGGCAC CATAGCATCGGACGAAAAGCGACACGAGAACGCCTACACGCGCATAGTGAGAGA AGCTCCTAGAGGTGGACCCGAACGGTGCGGTTTGTGCGGTGGCCGACATGATGCA TAAGAAGATCACAATGCCGGCGCACCTGATGTACGACGGGGAGGACCCGAAGCT GTTTCGAGCACTTCTCATCGGTGGCTCAGCGGCTCGGGGTGTACACCGCGCAGGAC TACGCGGACATACTCGAGTTCTTGATCGGACGGTGGGGGCTGGACAAGGTGGAG CAAGGGCTGGACGGTGAAGGGAGGCGGGCGCAGGATTCGTGTGTGGGCTGCCA CGGAGGATCATGCGGCTCCAGGAGCGAGCCGATGAGAAGGCTAAGAAGATGAA GAAGCCGGAAGCAGTCAAGTTTAGCTGGATTTTCAAACGGCAAGTCGTTTGTGA</p>
SAD3-2	<p>ATGCACCTCTGCCCTCCACGCGCCGCCATCAAACTGCTCCGCCGCCGCTCCTC CGCTCGCCCTGAAACACCAACACAAAACCCACACAATGCCGGCGGAGAAAATCG AGCTTTTCAAATCCCTCGAGGATTGGGCCTCCGTCAATGTCCTCCCACTTCTCAAG CCCGTCGACAAATGCTGGCAGCCTCAGGACTTCCTCCCCGACCCGTCCCTCTCCGT CGCTGATTTCTCCGACAGGTAATGTACATTGTGTTCCAATAACTCGTATTGTAAT GCTACTCGTATTTGGGCTAATATTTGATAAATTCGTCACTTAACTTTTTGTCTTG ACGGATTAGTCATTGTAGTTTTATTATTTGTTTCGATTTTCAGTTAAATAATTCTCATT TTTTATAGTAAGATCATTTGGAAGGAATTTGGAGAGTAATTTTCATGGTCCTGGGT GATTTGATCGAAATATCGCGTTGGAACACGAAAATAAAGATGGATTTGAGTAGA AAATAACCAAATTGACTTGTTGAAATTGTATTGTTGAGTGAACAGGGGGTTTATTA GTCATTTACAAAATTAAAATGTTTCTTTAATGTCCAAAACCTCAACAAAACACTGA TTTTGAGATTGGCCGTAAACCAGTTCGGTTTGATAAATACTGATTTTGAGTTTGA CTGACAGGTGAGGTTGTTGAGGGAAAGGACGGCGGAGCTACCGGACGAGTACTT CGTCGTCCTTGGTGGGTGACATGATAACGGAGGATGCGTTACCGACGTACGAGACC ATGATCAACACCCTTGACGGCGTTAGGGACGAGACGGGCGCCAGTCAAAGCCCA TGGGCCCTGTGGACCCGAGCCTGGACCGCCGAGGAGAATCGCCACGGGGATTG CTCCGGACCTTTCTGTACCTCTCGGGTCGGGTCGACATGAGGATGGTTGAAAAGA CTGTTCAGTACCTCATTGGATCTGGCATGGTAAGTGCAGAACAGTCCTTTTTGT TTCCGAACCTGGTTTGATCGGTTGGTCGGTTCGTTTCGTTTGTAAATTGGGTGATGAGT ATGCGAAATTGTCATAAATTATCATTTTCATAGTACATTTATAAGCTAGTGTTAG TAACAATTGTTTAAGAATGTTACAAATTTGAACCGGGAAAAAACCAAAATGCCA CTTGATAATTTATTTTGCATGATATAGTCATTGAACCTTTAATCTTCTTACAAATC GGATCCTAATTTGTGTACACATTGGTCACTCAACTGTCAATTTTAGAATAGGAATAG CATTTTAACAAGTGATTTACTCGGGTCGGGTAACAATTGCAGGACCCTGGCACGG AGAACAACCCGTACTTGGGGTTCGTATACACGTCATTCCAGGAGCGAGCCACATT CATATCGCACGGCACCACGGCTCGGCTAGCCAAGGAGGGAGGGGATCCGGTACT TGCACGAATATGCGGCACCATAGCATCGGATGAGAAGCGACACGAGAACGCCTA</p>

	CACGCGCATCGTGGAGAAGCTCCTCGAGGTGGACCCGAACGGTGCGGTTTGTGCC GTGGCCGACATGATGCGTAAAAAGATCACAATGCCGGCGCACCTGATGTACGAC GGGGAGGACCCAAAGCTGTTCGAGCACTTCTCGGCGGTGGCGCAGCGGCTCGGG GTGTACACGGCGCAGGACTACGCGGACATACTGGAGTTCTTGATCGGACGCTGGG GGCTGGACAAGGTGGAACAAGGGCTGGACGGTGAAGGGAGGCGGGCGCAGGAT TTCGTGTGTGGGCTGCCGCAGAGGATCATCCGACTCCAGGAGCGAGCCGATGAG AAGGCTAAGAAGATGAAGAAGCCGGAAGCCGTCAAATTTAGCTGGATCTTCAA CGGCAAGTCGTCTTGTGA
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Note: Exon sequences are highlighted in gray. * Additional *FAD2b-2* and *FAD2c-1* were revealed for cultivar Atlant, which could be a result of errors in the Atlant genome assembly.