

Chromosome	SNP #	Sequence	Col/Ler alleles
1	*CER445015	TGGGGTCATTGCTTTCACACAATGTGCGAGGAACAAAACCATAGTTGTGAGGGTACACAACCTGATGAGTAGAGAATACGATCAACCTGAATGAGAGAAT[T/C]CAAACCTGTTGAGATTGATTTTGCATAAAGAAAACCATTCATATAAAAAATAAACCTTGTCTCATCTAACCTTGATGAGTCTGTCTTTTTGTCAAGC	T/C
1	CER469132	ATCTCTATAGATAATGCCACAAGGTGCTGTGGTGTAGTGGTTATCACGTTTGCCTTACACGCAAAAGGTCTCCAGTTTCGATCCTGGGCAGCACCAATTG[G/T]TTTGCAATTTTTTAATAAGAAAAATGCAAACCTCCTTTTTCTTTTTATATACAGACCAAAAAATGGTATGATTTACTCAAGAATGATTGTTCTATC	G/T
1	PERL_4640_Ler	CTTTAGGTCTAGCAATTAGAACCCTCAAATCCATAGTGCTAAGACAGTGTTTCATCAACTTGAACCTGAAAGGTTTGTGCGAACGGCTAACTGGATCTTG[T/G]GCAAGTAAAGTTATGTAGAAAGGGGACAAATGCATCATTAACTTGTGAATTTTCATTACATCAACGAGCTTGAAGTTCGTCGCCCTGAGAAAAAGAGAGCA	T/G
1	PERL_7259_Ler	AGCATGACAGGAAAGACGCCGGTCTTGACATCGGTGCTCTGGAGAAGATAAAATCCGGCGACGTAGAAATTGTACCTGCAATCAAACAGTTCTCGCG[T/A]CACACCGTGGAGCTCGTAGATGGTCAGAAGCTAGATATCGACGCTGTGGTTCTCGCCACCGGTTATCGTAGCAACGTCCTTCTTGGCTTCAGGAAAG	T/A
1	PERL_8033_Ler	ACCCTAATCCTGATTTTCAGGCGAGGAATCAGTTTACGCTGAATTATTACCGTAGAGGTTACTTAGATGATCAAGGGAGGTTCCATAAAGGATCTCCTCA[T/G]GCCGCCGGGATGAGTCCGACCAGAAAATATAAGTTTTTGTGCTGCCAAAGATGCCGCCGACGACGATGCCGGAGACTCCGAAACTGATGGATCTTTTTCCGG	T/G
1	PERL_9896_Ler	GTTTTGAGAAGACGGCAAGGGACGCTCAACAAGACGACGCTCTCATTCTTGAGCATCCACCAAAAGCTTAACGTATTCTCTACGTGCACGCCACGAG[A/T]TCGCGCTTGAGCCTATCCCAAAGACGATGTGCTCGATTTTTGTGCGGCTCTGAGATTGATCTTGATCAGAAGATGAGAAGTATGCATGAATAGAGTTTTT	A/T
1	PERL_11886_Ler	AGCGCAAAGAGATAGGTTTGAAGAAAATAGTACCTTTATACCATCATCTAAATCCTTTAAGCTATCCAAGGACTGACAGCTAAGCTGTTGACTGGTCTGT[C/G]TGATACACTTGGACGAGATATGTGGTTTACATCTTACACAGTTCACTGTTAAGGATTTCTCAACTTTTTCTTCTCTCTCTGGTTCCTTACTGTA	C/G
1	PERL_13312_Ler	AGGTCTGAACCTAAATCCTTGAGCCTCCCTAACTCCTCAAGCGCAATACTAAATGACCCATTCCTGCAATGTTCCCTTACCAACACATTGAGAAATT[C/G]GCCAAACACTTCTTATCATCATCTAATCTGTTGCAGGAATCTTCCGGAACTTTTTCGTCAATCATCACGTACAATAAGGTCAACCAAAAGCGTTAT	C/G
1	PERL_15479_Ler	TGGAGGATCTTCTAATGTTTCTAAATGGCAGCTTCGATCTTGCTGTATTATCCAGTAGCACATCGTCCCTAACGTGTAATCATTATAGTTGCC[C/G]ATA GCAGTCAACCAAAATGGCTAGCCACTTCTCTTCCACCAACAACAACGACAAAGCCAAAAAGGCAACAGAGATGAGAACACAGGCAAGCCACA	G/A
1	CER428759	TTTATCTGCATTGAGGTCAGGATCTCTAAGGTAATCAATCATACTAGTCTTGTGTTTCAATACAAAATTTGGTATTTTCGATGATCTCATTGCTTTTGTAT[C/T]ATGTCAGGGGATATTTGACATTGTGCCATTACCATCAAAGAAATGAGCTGAAAGAGCTGACCGCTCCGCTGTTGCTAAAACCTCGTGGGTGTTTTAGCTTGC	C/T
1	CER446172	AATTTGCCAAAATGTATGAAGTCAAAGGTATCTTCTCAATCCGAGTGTATTTACATCAATAATTTCTAAACACTGGTGGCATTCTCCGTAATAAGA[T/A]CAGGAAACCAAGGGCAAACCCACAACAGCTCAGTATATACATCACTAGGCTAAGTCCCTTACCTCCACAACAACAACCTTCAGCTTTAAGCAGCAAAAAC	T/A
1	CER445501	CTTGTTTGTCTGATCTTCTTCTTAAATTTTTTGCATGTTTTCTTACATGATCTGCACTACTGCTGAAGAGAAAAGTAAGTTTGTCAATAAACGCC[T/C]ATGATAATGGATGCTTACTTTTCAATAATTGCTTCAGTTTTATTTCTAATCCCTGATCTACCATTATGGTTGGGAGAACCCTAACTGTTTAGCGCTGTGA	T/C
1	PERL_24716_Ler	AGGTAATAGAGACAATTAGGGTCCAGTTAGCTTACTATCATCCTCAATCATTACTGAGAGGGAGAAGCGAAATGGAAATAATTCACAATTAAGTACCT[G/T]GAGCAACGATGACACAGATCCATACATCACTTTTCCATAACATCTCCACAAGAATATCCTCTGTTACGAGATAATGCAAGATACGAGAGACTTCAATT	G/T
1	CER465299	TAGTTAGTGTTTTGGCTTTCAATACTTGAACATGCATATAGCCAAAGTTTTATAGTTTAAAGATTCAATAATTGCAGTTTGGATTACGAAATTTGTCTAA[C/T]TAGAGGAATGATTGCTCGAAGACTTATAATGCTTATGGTGTGCTTTCATCCATCCATTTAGAGAAAGAGTACTCTACCAATAATCGTTGCTTTACTATGTGTG	C/T
1	CER474495	CATTCCCTAAAAAACGAAATGACTCCTTTTGAATTTGCCGTAAGACAAAATCCAATGAATGATAATAATGATTACAGCACGTCACCTTAGTAAGAAAC[A/C]TTTGAATGATGAATGCTACGTATACTTATGATATCATCAATCAACTAATTCAGTACTAAGCTAATCCTTTTATTATGTAGTAGTTAGACTAAA	A/C
1	CER475313	CAGGGAAGAATGTGCTGGATAGCGAGTTCAGGGTTTTAAATGCGACAAAACCTGGTAACTTTTCCAGCAGCTGCTATCCGAACTTCTGCCTCATTATCAC[A/G]AAGTAGACGACATATGCAGGCACCAGATCCGTCCTTAATACATAAGGCACATGAGAAAGTATAAAAAACGACTCAAAGAAATTTATAAGATGACTCAA	A/G
1	CER468122	TGCAGAGTTTTTTTTTACAAGTATTGATTCTAAGAAAGATTGTGTATGTAGATTAAGAGTTTCTGATTCTGTAGCATTAAAGATTTTCAATAACACT[T/C]GATTGAGAGATGAGCATTCTACTTTTTAGGTAAGAAAAACGAGACACATAATTTGTAATCTGTGTAATAAATTTGTTTTTGTCCAAAAAGATTTCAT	T/C
1	CER465478	GTGCGAAATTAGGAGAGTTAGGGCGGACGATAATCCTTTTGTGTTGGCCGAGAAAAAATTTGGTTCAGAGTTAGGTAACCTTTAAGCCCATTTGGGCTACT[G/T]GTGATAATCTATGCTCATCGTTTACCTCACCATTGTTAGAACAAAACAAAAAATAGACATCACTTACCATTATTTCTAAATTAATGTTAAGTATGA	G/T
1	CER465333	AACTCCTCCGTAAGTCAGCCATCGATTTGGAGAAGAACAACGAATGCGGTGTAGACGCAAAAGAGATTGCGAGAGCTTCTAATGGGTTTCAGGAGTAGTCT[A/T]AACGATAAGATACATTGGGTGACATTCCATTGCGGATACGATTTTGGGTACTTGTGAACTCTTGTGAGGAAAGAAATTGCCGGAGGAGATACGGACT	A/T
1	PERL_41814_Ler	GTGATTTGCTCAATCCATCAAGGTCAACTTTAGTTTTGCCAAATAACTCACCCAAACAAGCAGTGTGATTTTTACACTTCTCGTCTCAGAGTGAGA[C/T]TCGGAATTTGAAGTTGTCTCGGTCTTGGTCTCCATCAATTGAGGTTGAACACCTAAACCCAAATAAACAAAAACCATATGTCAACGAATGACCACAACATA	C/T
1	CER475177	GTTGACGACAAGTTTCATTGCTGCCATTACCAACTTCAACCAATAGAAATTTGACTGGATCATATAATGCAAACTAGTACGAAAATGGTTCAATTTG[C/T]JAGAA GAAAAAGAACTAAAAGCAAAAACAGGCAAAAAGAGATACCTTTCCCATGATGCTAAGAAGGAGCAGCTTTTTCGTATAGCGGCTTGTCCACTA	C/T
1	PERL_46706_Ler	GGCCTGTGGATTGAGTTTACAAGGCAGTAGATCTTATCGTAAAGGACTGTTTATACCGCTGAGGCTCTCATCTACAATAACTCACAGTGGGTATCG[C/G]TTATTGAAAACCTTTTCCCTTTAGGAACCGGCTACTCTGCTTGTGACTCAATGAATGCAGTAACAGAAGGCATTGATGCCATCGCAACCACAAGAG	C/G
1	PERL_48654_Ler	GAAATTTGAAAATTTATGTGGCTAGTACTTAGTACGATTCACAGTTGCAGAAGAAATAGGGGGGAAGATAGAAAACGTGAAATGAATGTTTTGAGAATA[A/G]TTT AACGAGCTGTTCAAAGAAATGAAATATAATTATACATGACTTGGTCAATAATCTTATGGTTGAGATGTTATGTTTAGCTTCAAGCTTTATAGTA	A/G
1	PERL_50660_Ler	AACTGTGGTCTTATAGTTTTAGAGGGTAATACGAAAATGAGAGTGGGTTAGTAATGGATAACTGAATTTAAGAAAAGTTCAAAGTGTGTAAGTGAAG[G/A]JAGTCGTAAGAGACAAGCATCTTCTTCTTATAACCATCTAAACCACATGCTTATGTCCACTTTTTTCTTCTTCTGAGTGAAAAACACTTTAGTCTCCC	G/A

1	CH1SNP24	GCAACGGAATACGAAAATACCAGAAGTTATAAACGCGCGAAATCGAATTGACTTACCAGAGATCAGTCTCTCGCCGGAGATGACAGTTTCTATGCGACA[A/C]TTGGATCGGCGAATACGATTCCGGCGACTTCGGAGAAAGACTCAAATCGTTGTGACGATCGCTAGCGTGAGACTTGGGCCCTTTGATTAATAATGTACT	A/C
1	CER432978	ATGGTTTGACAGCCTAATTCACCTGCAACCATATAACAAACCATATAACACCTGCAGTAACAAGCTCTACAACAACGACCCCAAGAGTCAGC[G/C]CCGTGTCACAATCCCCAAGAATCATCTGCTACTTTCGGTTCTCGTGATCAAATGTTCCATCCAATCAATTTGGTGCCCAAGGATCCCAAGGAAGTGGCTG	G/C
1	PERL_58052_Ler	ATAAACCCCTTCTCGATGAAGAGATAAAAGTGTAGATAAGCCATGAAGCCACAAGCACTAGTGGTCCAAAATGAATCTCCGGAACACCAAGCTCTTCCGC[T/A]ACGTCAAGAGTAAAGCTCATCGAACCATCTGATACAATACAGCTCACCCGAGGGACATCCTCTCTCGTACAATCCGCTGGAGAAGCTTCTTGAACGGAA	T/A
1	PERL_61102_Ler	AATGGTGTACCCGGGAATCTAATTCCTCAATGGTACTTTATCCAATGGAGGAGCAACGTCTTCCGTTCTCTTGGAGGCAAGCTGAAGGTGTCATCTAC[A/G]GATCCTCGCCGCGAAGAAAGCTCCGATACGGCGGATGTGTCGGACGGGGGAAGACTAAATGGCATCTAACGGGTACGGCGACGAAGGGTATGATTTT	A/G
1	CER444670	TGCATAGCTTACGTAAGTTGTCTTATGCCTTCTTAAAGAGCTCCGGCTTTGTAGCCATTTCTGTTGTCTCTCCTCTCACACTTTATATTTACACCTTT[G/A]CTTTCCCATTTTGCACACTCTGTGTTACCAGCTCCTGAAACTCAATCCTCCTCACATTAATATCTTACAATACATTATATGTGTTCAAATAAATCAAC	G/A
1	PERL_68371_Ler	CTCCATGGATGCTGATAACATCTCAAGATCCAGCAACTCTTACCTCGGAAAGCTCAGGTTCTTTTCAGTCCCTAGACATAGTAGTTTGCTACTGTTGAAT[A/T]TTATGGTCTGTTTATCTATTGTTCAAATAATCTTTGTGATTTCCCATTAATCAAGCTTAATGAGGTTCTTTATCTCTCTCAGATCAAACCTTCTTGG	A/T
1	PERL_70718_Ler	AACCAAACCCAACACGTAATCAGTGAAGGAAGGGACTTACAGTGGATTTCCCGCGCGAGATGCCAGTGATAACAGACACCAACTGAACAGT[A/G]TCCGTTGATGAGTGAACCTTCCGACAGAAACATCCGGATGGATTTGAACGCCATCCGGTGGTCTTTCATCATCTTCCATTTTCACTCCCTCAGCTT	A/G
1	CER426758	TCACTTGAACCTGCTTGTTCGTTTCTTGTACTTCTTCCAGCTGAGGCTAGCGAAGGGTTAGCCCAACTTCAAACCATGCTGCAACAAGCGTATCACCG[G/A]ATTCTACTATTGATGATGCGGTTTCATACATCAACACTGTCAAGGAAGCATTTTCATGATGAACCTGCAAAGTATTACGAGTTTTTCCAGCTCTTTTATGA	G/A
1	CER480379	GCACCTTGCCTTTTCTACAGTTGGCGTGTGTCAGCTGTGTAACAGCTTTTCTCCTTCTCATTGCCGCTTCACTTACCGAGGTAACCTAAAATCAA[G/T]TCTCTCAAACCAAATTTGAATCTTGAACCTGAATAAGCTTGAATGTTATATTTACAGCAATTTTCTAAAAGCTTTGGAGGAGATTACACAAGG	G/T
1	PERL_77651_Ler	CGACCCGGGAGGAAGGAATGGTCAATCCTTGTATCCTCCAGGCTACTATGTTTTCAGTGTGGTGGTGGGTTCTAGGTGCATCGATTTCATCATGCGATCTG[C/T]GATGGGTTAGGTGCGAGTCTGTTCTTCAACGCTATGGCGGAATTAGCTCGCGGAGCGACAAGATTTCCGATCGAACCGGTTTGGGACAGAGAACGTTTAC	C/T
1	CER479670	AGACTGATGTTGTCTGATGTATACTACATCTTCCACCAATGGTCAACCGAAGTTACAATATGAGTGCCGTAATTTTCAAATAAAGCTGTACCAAAAGAG[G/A]AAC AAGTGGAGAAACACATAAGAATCATGATAGATGTCATCAAGAACACATAAAAGTGTAGCAAAGGACAAACAAAGGAAACTGACTCTCAATTAGA	G/A
1	PERL_82572_Ler	TGCATGAAGCCCAAATGAAAGGTTTTGAAAGAACTGCACTGTGATGACGATGAGACAGTCTTATCCAGAGTTGAAATCAGCCAAATAGACACTTGAC[A/G]CC TCAGCAAGAGGTAACCTAAACAGAATCCATTTCTGTGATCGCCAAAGCCACACGATGATTCTTGCCTAAATCATTTTAAAGACTGTATAGAGGAAAAC	A/G
1	CER426610	TGGTATTGGAGGTCAAGAGCCAATTGAGACTTTGAGGACTTTGAGGTCAGACAAAGTTTTACAGCCAAAGAGTAAACCACACGGAAAGGTAAGAAAGAC[C/T]GTGGTCCGGTTTATCGTCATAACAAATGAATACGAGGGTTTTGAATGGTAGATTTAAATATGATGCAGATATACTTTGGCGAGAATGGTTTGGAAAAGA	C/T
1	PERL_89383_Ler	GTTATTAATATTTACTTTATCAGTATAGGTTTTAGGGGTGTTGAGTGTATATATGATGTGTAACCGTTAATTTGGTACTGGTGCAGGAGAGATAAAT[T/C]ATGCTGATCCACTAGGTTTTACTCGGCCCATTTGCCCATTCATGTTCCGGTTTTCCGCTCGCGGCCAACTATCCGCGAGTTACCACCATATCGTCC	T/C
1	PERL_94924_Ler	CCTTGACGCAATAAAGAAAATATTTTCAATGTCGATAGCTATCTCCATTCCAATGGCCCCCTAGTCTATTTCATCGATTACAATCTTATCAATCATG[T/G]TCCG TCAATACACACTTTTCTAATTTCAACAATTTTATAATTGTTGCCCTCGTTACATTTAATTGTAATATTTTTGTTCTCCTCATGATAATATTATTCC	T/G
1	PERL_98015_Ler	AAGACAGGGACGTACTTGTATTTGATCATGAGAACCAAGTAAGGTGCGATTTGAAATTCGCATACAGATTCTTTCTTTCATGTCAAATTCAGCATTCTGAG[T/C]CAG TTTGACCAAGGTTGGAATCAAATTTGCATCGATTACTGACTGTATCACCAGGGGAAAACAGTTAGTTTAGTGAGATAGCAAATAGACAAATTTGTT	T/C
1	PERL_101417_Ler	AACAAATGAAATAAACGCATAAAAGAGGGTCGCAAAAACCGTGAAAAGAGACCAAAAATAAGTATGGATATCTGAACAGAACTTGGATGTCCTGAGACGCA[A/T]AG TTAGGTCGTGGCCTGGCCTATAGGCGAATCGTCTTGAAGGAATGTCTCATACGCAGTCTGGAGGCGGTTTCTATGGTCTTTCCCTTAGTGTTTTTAG	A/T
1	CH1SNP41	GTCAGTTTTGATAGAAACGCACGAATCTTTTCAGAGTAGACTTCTCTCTAAAGGGCCACCATACTGTATGTCCACATTTGGAATGTTTGTGAGGAGGTC[A/G]CCA AATCGCTTGTACTAATACTACCAAGAAACTGGTTGAGCCTTTGGTCCAAGTTTAGACTTCTCACACATATGTGAGTTTTGTTTTAGAGTGGATTTA	A/G
1	PERL_108653_Ler	TGGTTGTTTTGAGATATGGCAATGTGCATTTGAAAGAACAACTGGGATGTCCACTATTTGTTCCATCAATTTCTCAATGAGAAGCAAGAGGCACACCG[G/A]GTG TTAGATAAGCTGTCCCTTAGAAGACACAAACATCAAGGTGGGAAGAGAAGTATTTCCCTAAGGCGATTTCCAACCTATTTTATTTTATAGATAAAA	G/A
1	PERL_111792_Ler	ATTGGATTTATAATAATAAATTTTTTTCTTGGATTTTATAACACTAATAATTTAGCTAACGAGATAATATAGACAAATTTATATGGGATGACGGGTG[G/A]TCATAT GCGTTGGGGTATTTTACGGATGTAACATTTGATTAAGATGGTAGTTAACTCATTGATGTCTTCTGATGATGAACTACTGTTGAGGGCTAG	G/A
1	CER480992	CGGCATCTCCAGTGACAATCGCGGTCCGGAAATCTAGCCACGCCCTTCACTGCCTCTCTCATCTGAGAATCAAAAGTTGTCAGAAAACCAAAAAAA[A/C]CT AAAACAAGGGAATGAAGAAGTAAGAAGGGAAGCAAACCTCTCAGACATGTAAGCTCGATCAGGGTTTTCAACAATGGGGATAATGTACCCATCATAG	A/C
1	PERL_119867_Ler	CAGTGTTTTTCACTGTTATAAAAATCAAATAACAGTAAAAGAAAGATTATATATACATGTATAAATAAAGTAAATTTCTTAAAGGAAATTAGTACCAACAC[T/C]GGCGG TTCCCATCTCCTACCGGCGGTCTCTCCATTGTCGATAGGTTCTATGTTTTCTCTTTCCATTTCTTTATTCTGTTATTGTTGTTGTTAGGTTTT	T/C
1	CER480893	ATATTGTCAAAAAGAATTTATAATAAAAGTCCAATATGATTGGAAATAAGAGCTACACAATACTAAGTCCATCTTTTGGAGAGCAACACATGGTTTCAA[G/T]CAGT CGCTTGCCAAATGTAATAAACAATCAATTTGCCATTTGAGCGATCAAAGGGTATTGACTCGAAATAGACAAATAGCCTATTGTCTCTACGACCAA	G/T
1	PERL_125322_Ler	GATAGTCCCAGTTAGAGTCTGCGCAATCTGTTGGCAAGCTCCAACATGCTAGTCTCAGAGACTATCCACTCCGAGATGTTTCCAGTCT[A/T]GC AAAGGTTCTCCTCGAGGCTCTGAATCTACTCTGTCTCGAGCCTCTGGATCAACTCTAGTTACAGGCTCTACATGATCTATTTAACCTCAGACTCTAC	A/T
1	PERL_125426_Ler	GAGTTTCCGCCAGAAGAGACGAGATAAATAGAGAACGGCGAAGAAATTAGGGTCCGTCGACTGAACGAGAGAAGAGAGCGATGTTGTTTTATATGCGC[A/G]G AAGAACGGTCAAATATCGTGTGAATAATAAGAAACCAAGTTTTATAGAAATTTTGGTTTCAGATGACGTGGATTAGGGTAAATGACGTGGATTGGT	A/G

1	PERL_126101_Ler	CAACAAGTCTAAGTACCTACCATTTCATCATTAGTAACCTTAAGTCATTTCCATAATATCTCTAGACAAGTAGAAGTATATACAATCTATACACCGCTCTAC[G/A]ATGTA TGGTCCGCCATTGAATTCATCTAGAAAATGATGTGATTCCCAACACATTGGGCTGTCCGGTGAACACCACCGTCTCACTATACGTTCCAAACCGGT	G/A
1	PERL_126577_Ler	GGGCTAAGACCAGCTTGAACAACAGTAAGAGAAGAAGTACTGTTATGGTGCCTTCCAGCTGATTTGGAAATCCATTTCTGTTTAGGCCCGCTG[A/C]TA ACATCCCGGATAACAGCTCCTTGGATCCATCTGATGACTTGTATAGGACCAGGAGGCAAGCTGTTTGTCTTTTTTGAACGGGACCTCTCTTTTTG	A/C
1	PERL_127515_Ler	GAAATGAAATGTGAGTGGAGTAGAGAAAAAGAAAAACCTGCTGACGAACACCGAGTGGGTAATGTGCGCCGATGTTACATTCCAGTCAAAGAATCGGTA[T/G]G GACTCTCCGCGGTTACCGCGGGCAAGAATGATAGGCAGAACAAATAGGATGGTGCCTCCGGATCTGCCACCGCCATCATTTTTAATGAACGACGGCGTT	T/G
1	CER480480	CATACCAGGTGCCAAATGAACCTAAATACATAGGGTTTTAGAGCAACAAACAATTGGATTAATGGAGAATTAATGTAAGATATTAATGCACTCACACT[T/A]ATGA ATCCATGTGCGATTGTCAAGTAATCAGACTTCCCTACTGATCTAAGTATTTGACGGAAGAAGCACATGTGAAAATTAACCTCTAGTTCATTAGAT	T/A
1	PERL_133623_Ler	GAAAAAGAAAAATATGGATTAGCAAAAAGACAAAAGTGTAGAAGAACAATGCATAGAGTTACTATGATGTAAGGCAACATACCTCTGTATCACCATAGC[A/C]AGG CTGCAAGAGAAGAAAAATCAGAACATTAAGACGGTATAAAAAGGGCACAAAAGTGTATGTAGTTAATTCGTAACACAGGTCATACATGCGATGAACGGC	A/C
1	CER467835	ACCTAGCCTAGACCAACAAGACAACCTTCCACCAGACTAGAACCCTAGCCCACCACCTCTGGTAAACTGATAAATAACTAAGTTTTGTTGACCA[A/C]TCC GGACAATCCGATTTGACCCGATCCAAACCAAAAACGAAAATAATTGATTTAGAAAACCTCGATCGAAAACCTATTTTTATAACAAGTCAATAATATGTT	A/C
1	PERL_140292_Ler	CTTTGATGCAAAACCAGCTTGTAGACCCTGCATAACCGCTGTCTCCATGAGCCGTATTGATGATCATTGGTTTCGAATTTGCTTTGTCTAGCCATCT[A/G]ACT AGCCGAGCTGATGGGTTGAGATCATCCCATGCAATCTTTACCATTCCCTCTCTCCATAATGCATAGACTACAACCTGAAACACATCTGTAGTGGC	A/G
1	PERL_143530_Ler	CTTGCAACTTCTTAGCTATCTCTGTGCATTTCTCCTCTCTTGTGTCTTCTCTGTTTCTCTGTCTTGTTCGGATAAATCATGCTTCTCTCTCGCGAGTTC[A/G]GACT GCAATGATCCGACAATTATCTTCAAAGTTTTACCTCGGAATTTGCTTTCTCTATGTTGGATATAACTTCTTCAAGCTCCTTCTAGCAGAAATCAA	A/G
1	PERL_147948_Ler	CTAATTAACCAACCGATGGACTTCTGTGCTTGAAGCTCTAGCGGTTTTCCGGTGGTTTTGGAGGTGCCTTTCGTTGCTTATCAAATCGACGATGAACGGCGA[T/C]GA TTATGCGTCATCTGCTCCTCGGGTCAACTTTGTGACGACTATTACTTCCCTACAGGAATTAGTTTTCTCTGGTGGGCTTTTCAATAAATTTGGCAT	T/C
1	PERL_152362_Ler	TTTGAAATCCACGAAATAGGCGATTAATCCATAACAAATTAACAGATCTGTTTCGATCTCAAGCATAGAGAACCCAAATCGTATACATGCGCAAGAAG[A/G]AAG ATAACTACTATTTGACCCACGAAAGATCAATGGATGCTGAATTAACACAGAGAGAAGAGAACCAGGGATCAGATTCGGAAAATTCAGGAA	A/G
1	PERL_155480_Ler	ACGGCTTGATTTATCTGCAACTGAATTCAGACATTTTCTTCCGATCTAATCACTCTTTTTGATTACCAAACCTTTTTGTATATGTTGGAGCGTCAAGC[G/A]TTAG GGCACCAACCAATCAGCATCCGAATAGGCAGCAAGACAGAGATTCTTAGAGCGAGTATGTGAACACCATGGGTAATGGTTCCGTTTATGTATC	G/A
1	PERL_158268_Ler	AAAAAGAATTAACATCTTTATATAATTAATGAACAAATGAAGAACAATAAGACACAAGTAACATAAAAACCTTTAGAGGCAGCATAGATAGGATCAA[C/T]GGGC ATTGGATAAAGACCCGACGCTGATCCCATGTTAATGATAACTCCAGGCTTTTGTGTTGCTTTTATAGCTTTGATCTACACAAAAGTTGAAAATCAT	C/T
1	PERL_160456_Ler	TATTTACTTTTCATTTCAAGTTCTCAGGATTTCCGAGCCGTTAAATTTGTTTGCATAAGGGAATTACAGTTGTGCTTGTATCATCGGAGACCCTAGAGTAG[C/G]CGA TTTGGTCACTAGGGAGCTAACAAAACGAGGCTTGTCTGCTTAATCTTTCCACCAACTCATGGTATCGGGGCTTCTTAACCAAAAATACGGTTAA	C/G
1	CER481644	ATTCTCACATGGTGTGTTAGAAGAAACCTTCAAAAATCAAAAAGAAGCTGAATTTCTTCACTGTAACCTACCGAGCCAATGGGGTCACTTCGGTACCAAAG[G/A]TCA AGCTTACTTCTATAGAACCCTCTGAGTCCATGTCTGAAATCGCTCCTCCCTTGAATTTTTCAGATGTCAAACACTCGTTTAAATTCATAAACAACACTG	G/A
1	PERL_166550_Ler	AACACCATTGAAAGAGTTTCTCGATAAGTACGAGCTAGCTCTTTCAGAAGAAGCACAGGGAAGAACTCTCAGCGACATAGAGTCTCAAACCTTGAACACC[G/A]CG GAGCTTAAAACAAAGTGTCTTTCGAGACACAGCTCTCGAGAATCTACAGGAGAGACATGTTCAAGAAATTCAAATAGAGGTAGAAGAAATGTACTC	G/A
1	PERL_168980_Ler	CTCGTCGAGAAGCACATCTGCCACCAGCTTACCTTTCCGAGATGCTACCACCTTCCAAACTGTTACCAAGCGCAGCTACGACAACATTTGCTTTTGGCCGC[T/C]TC AGGACATCAATGATAGCAACAGCTTCCATTTCTCCGAGCCATCTGCAATGGGTACAAGAATCTGAAAAGGAAAAACATGATCTCTCAGTGTACGGAA	T/C
1	CER425903	ATCCAGTTATAATTTGACTCATAAACCCTTATAGAACCCTCGATCCCTAAATATTGATTTTAGAGACTCAGTAATACTCGTAACCCGCGGCTCTCCCT[G/T]AGTT GAACGGTGGCTGACGTTGGGGGCACCAAGACTCACGCATAGGTTTCATCGGCAGGGTAAACGACAAGCTCACGGATGTTTCATCGGTTGGATAACAT	G/T
1	PERL_174514_Ler	TTATGTGCTTTAGACAAAACCTGCGATTAATCCTCCTTTTTCGGAAGAACACGTTTTGCTACGTTGTAGAAATGGTGGGAGATCGAAGTAGTAACGGC[T/C]TGT GCTGCCACGATTAGATCAACGGAGTTATCTCCGCGACTAGAGCAACCAATTTGGTCTTCGGAAATTTGTGGGAGGTGATGTTAAGTACTTCTTT	T/C
1	CER480463	TTGTTTATTTCTCACTGACCTTTGTCACAACAACAACTGGTACAAATGAAACAAAAGAAAATCATAGAAGCTAGCACAAAGTTGTTGCTGCAGA[C/T]TTCCG TATGAAAACACATTTGTGCTATTGAGAGTTGAGGACTCAGCGCAAAAATGGACTATCATATTTGTAGTTTTACAAAAGAAAGGACGAGAAAACAAAAGCAAA	C/T
1	PERL_180543_Ler	GAGAACTAGAAGTGGATTCTTCGACGAATCTCACTGTGACGTGAAGGTACATGTCAAACGGCGCTGGAACCTCGTTCCGGATGCTAAAGCCATCTCAACGCA[A/G]A GACGAGTGCCTGAGATACTGTCTGAAAGATTGTTTCGAGGAGAGGAGAGGTCTTGTGTGGATCAAAGTTAACGACGCTTTTTAAGATAAGTTGAGTGA	A/G
1	PERL_185054_Ler	TGGCAGATTCATTGATGTGTTGATTATGTTTAGCTGAAGAATTTCTGTGATTCATCTTTAACCAATTGTGTTGATGTTGTTGGTGTATGATGACGGCGAC[G/A]TTTTG ACTGCTTACAGAAGACATAGGGTTCCTTACACCAGAGTTCTGGAAAGAGACTAGATTCTCCAGATCGCCCTACCAAGAGCACACTGATTTCTTGT	G/A
1	CER428933	TCACGTTTTAACAGTAAGACCCACAGTACGCAGACAATGAACTTCAGGTTGTAAAATACACATAAAAATAAACACACCACAGATACGCACTACAAGGTG[C/G]JAG GCAAAACACTAGAAAAATCATAAAAAACAAAATTTGAACAGTCTATACAAAACAAAATATAGAGATTGAAGAGACCGTTGCTGCAATGTAATAACA	C/G
1	PERL_191685_Ler	AATAAGGAGCAAGCAAAGCCAATCCGGTTAGGAGAAGAATGGTGGGTTTCATTTGGTTAGGTGAAAGTGAAGAAACTTACTTTGAGAATGCCTTTTCT[T/C]GG GTCTGAAGCTATATCGGGAATGTTGAACCCGCATGAGATGAAACAGATTTAAAATAGGTTGCTCGATTCCGGAGAAATGTTGATGCTGCACTCGCAAC	T/C
1	PERL_195268_Ler	CATTTATTACAGAAGGTTGTTTATAGCAAGAAGCAAGCAAGAACTAACTAGTTCTTCAAACACCATAGCTCCTGTTCAAAGTCAAAGCAAGCACTCG[G/A]AAT CACTTGCGAAGTGAACCCCTCCTGCTGAGTTTTCCAATTTGTACAATGTACATTATCAAGAACCATTTTCATGTTTCTCCCGGTTGTTTTGATT	G/A
1	PERL_199396_Ler	TTTTTATACCGGACAAAACAGGCTGAATTCATTGAGGACAATTTGATGGCTAAAAGGGAGATAAATCCGCAACGGCCTCAGCCACTGCTGGACTATC[A/T]GT AAACGCATAGCTGATGACGTGACGCCACGATAAGACCACGATGGCTTCGAAAACCGATAGTAAGAATGATACTCCCGTTGTACGACTGTGGAGAACG	A/T

1	CER446517	CGAATATGCTATGGTAATATATCAACTTGAAAAAGAATATAGTTTTCAATAATAAATTTTGTGCTTTTTAGTGTGAGTACCTCGATTGGATCGCAGACC[T/A]GTGTGGATTCCCACATGTTGAACATTGGAGAGATCAAGAAGTAACTCGCGGTTACCAGAGACTGGTAATCAACCAGAAACTTTCCGTGATGAATGGGAT	T/A
1	PERL_206982_Ler	AATTGAGATTCGGAGAAGAAGAAGCTATAAAGTTGTACCATAATGTCATGTGAAGCCATTTGGCGCCAAATCGATCATCCGCTTAGCCTCCGC[G/C]GCAAGATTTGCAAAGTCCGATGCAACATCGACGGAGCGATCTTCGGCGACACACCCACCATCTTCTGGTTTCAACGAATATGGTAGAGAAGAAGAAAT	G/C
1	PERL_211165_Ler	GTGCATCAACTTACCCTGGAACTGAATACTCCATTAACGGTGATCAAGAGTTCGTTGAAGTCACAATCGATCTTCAAGACGATGACACAATCGTTCTTCG[T/A]AGCGTCGAGCCAGCAACCGCCATTAATGTCACTCGGAGATATCTCCGACGACAACACCCGGAATAATGACTCCGGTTTCGATTTTCGAGATCTCCGACGATGA	T/A
1	CER425307	ACTCCTTAGGCCAAAGCCACTAGGAACCAAAGGTATAGTAAAATTTGTTTCGGTAAGGTCATAAAATATGTAATTAACATACTTGCTTTGATAACACAAG[T/C]GGA GAAAGGCATGTCGAGACGACGTTGCACAGATCTGATGGTGATTCACACCTCCAACAGCTTTCCACAACATATGTACTTTAGGATCATCCT	T/C
1	CER431810	CCTGAGAAGGGCAAGAAGATCGCCAGGGCAATAGTTCTGATCAATGAGGATAGGATATGAGACATTAACCATAATAGCTCCTAAGAACCGGACCCTCTC[C/T]A CGAACCCGTTGCTATGTCGCGGCCACGACTTGATCCTAAGCCCATTTGCCGTCCGTACAAAACACAGCATTCTTACAGTTACGTTTTCCACGCTTGCT	C/T
1	PERL_223567_Ler	CTCACTGGAGAGGTCAGTGTGACAAGAACCCTGAGAAATGTTGGACCTCCGCTTACAGTCTACAGACCAGTGATTGAGTCTCCTCTTGGTATCGAGCTTG[A/C]T GTGAAACCGAAGACTCTTGTGTTTTGGTTCCAACATAACAAGATTACTTTTAGTGTGAGAGTGAATCGAGTCATAGAGTTAACACTGATTTTTATTTT	A/C
1	PERL_227196_Ler	ATGATTTCTCATTGATCACCCAGTCACTCAATCCTTTTCTTAAACACTTTTCAAAATTTGGTACACTTCACTTCTTCTTTTGTATCGAAACTCGT[G/A]GGAAC CTTACCGTGAAACTGGAACGACAGCTCTCAGGATATTTTTCAGGGCTTTTCAGACACTGAGATGGGACCTATCTCAGGACATGTATAGCTAGAAA	G/A
1	PERL_230392_Ler	TAACCTTCTCACCACACAAAGCAACTCAACGCCAATCTTATCATCCTCTCCATTATCACTCTCAGGTACATCTTGAACAATGACGCGCATGTAGTCAGCT[A/T]GAG CCGTGGCGATTGTACCGATGGCTTGAAGCTCAACGAGGTTAGGTTTTTCGTCTAACGGGAGAACCAGGAGCTAAGAAGGATCTGAGAATAGTCTTGTT	A/T
1	PERL_232983_Ler	TATCAACTAGTCTCAACAATTGTCAAAAGCGATGCACAAAACCTTTCAATGGTGAGAGGAGAACCCTCCGGTAATAGCGGCGGGTAATGGTGAAGTCT[C/T]AC TCTACATTTGGGCAGCTGTTGTGGCTTCTCCGTATAGCAGCCGTGATTTTCTGATGCAATGACAGCTTCTAAACCTCACACTAACGACGATGC	C/T
1	CER465324	CATTAATTGACACAACCAGAACACACGGACTATGGGCTTGTCAAAGATAGTTGAACATGCGTGAGTCGAAAATCCAGAGAAAACATAAGCCAATTGGTG[A/T]AT CGCTGCTTACCATTGAAGGAAGATGAGGCCAATGCTATAGATATCGAACCTATCTGGCAAATTCATCTGTTTGGACAAAACAATAAGTATCAAATTC	A/T
1	PERL_238431_Ler	TATGGCCATTCAAGAAACATACGCTTGAATGTGACCCGAGTGAGAGACTTGTGAAAGAAGCAAGCAGAGACTTTGAGACTGTCTATGTAGGCCAAGTTTG[T/C]CT CTCGTGGGAGATGCTTCGATGGCAATACGACAAAGTCTTGGAAATTTGATTCACAGGTTACTACTTATCAATACAACTTAGTAGCTGGAGAGTTTCAGT	T/C
1	PERL_241367_Ler	CGCTGATTAGGAGCTCAAGCTTTTATCATTGAAAATTGATACAAAGTCAAGGCTCAGCAGGATCAACTCATTAAAGCCTTCTAGGAAAGCGTTGATTTGAGGGCG[T/A]ATA GCACCTGGTAAGTATGTGGTCCGCCACAAGGTCAACATATTCATGTTTTGTTTTCTTCTGTTACCCGATGTTTTCGTCTCCAGGTTTAAAGTTCATAGT	T/A
1	CER425902	TGTTAGACATGAATCTGCTAGAGACTGCGCACAGAACCAGATTTCTTAGGAAGCAAGGCCAAGAGAAGCTTGGAAAGAGCGATATGGAACGACACCAA[T/C]T TCTTGGCTGTAAGTGTTCATTACCCCAATTCATATTTTGTCTTAAAGTGTTTGATTAATCTGTTTCCCATTATCCTCTTGTGGTTAGTCTGTGG	T/C
1	CER473460	AGCCCTCTTTTTCATGGCTCTTCGATCCGCACTCTCAATGCTGAACATGACTTCTGAGGGTAAAGAGTTTATGAAAAGATAGTGAAGCGGCTGCACGCA[C/T]TA AGCTTCCATATGAGAAGCTACTTTTGGCTCGATTCCAGCAGCTCAATGACATTAACCTTACAAGACGGAGGAGTACTCTCACACCCGGTAAACAA	C/T
1	PERL_248424_Ler	ACGGTGGAGATTCTACGATGATACACGTGTAAGTCAATGCCGTTATGAAGATGTAGATCCGATCTATCCAAATCAAAGTTACAGAAAACGGCATGAGGAA[G/C]GT AAACCACCGCCGGAAGATGTAGATCAAACAGAGGACGGTGATAATGGAGAAGGAAGTAAGGTCCGTAACGGCGGTTCCGAAACTGAGAAAAGTTGAGGT	G/C
1	PERL_251951_Ler	AATTGCAGATATATAGAAGGAATCATTGATTTTACTTACTCTCCAAGGCAGCCATGTCTATAAGGTGAGGTCTATCTTCTCCGTGATATCTTGAGC[C/G]ACA AGGTTCTCATCCAATTAGGGTAGTCCACAATGTCAATGCGCCACAAGATTGGTGTCCCATGAAACAAGTAACTGCTCAAACCCAAGTTTCCGAAG	C/G
1	CER468291	CATGGACATTGATACCTAACATGTTACCTGAAAAGAGCAGTGGAGGTGGAGGAGATCAAGCAAAAAGAGATTGCTGCTGCAACAGCGGCTTCAGAGGCTCC[C/A/G]C CGCTTGTAGCAGTTGTAAGAGCAGGCTTTATGCTGCGAATTACGCGCAGCAAGAGGTGAAGAAAATACGATAAAAAGGCTTAAATGTATGGAATAAGGTAG	A/G
1	PERL_255454_Ler	CAATTTAATTTGTGAAAATATATTGTTTTCTTTTTGTCTTTGTAATGTCTTTTTTCAGATCTACTTCTTAGCTTATGAAACGAACTCGCGCTCATTGGCT[C/G]CAAGT GTGGAGATCTTGTAAAGTTTGTTCAGCAAATTAAGGTTCAAATTTTTTATGATACAAAAGTACAAACCCCTTATTCATATAAAATGGGCCATTTTTTC	C/G
1	PERL_257106_Ler	ACAGAAGATCAAAATCCCACATAAGATTCTTAATGCTGCAACTGTCTTACAAATGTTCAAAGATTTTCTTCTCATAACTACAGTATCACGC[G/A]CAGA GCATAGCGAGTGGATAAGGCATGAAATGGATGAATGGGAAAGAGTGGGAGATACCTGAAGCATTAGCTCCGCTAGCTCAGAGTTTTAGAT	G/A
1	PERL_258427_Ler	ATTACAAATACCTAGGATCCATGTTGATAAGATCACACAATTCATGTTAATAGCCCAATCTGGACCAATCAGCATATCATTGTAGCCCTTCTGCACA[T/G]GCAG CCGCATCATTGGCCATCTTAACAACCTTATCAATCAACTCCACAAGTTTTCAAATTTTTCTATGAAGACACCATACTACTTTAGTCCAAAG	T/G
1	CER468885	AGACAGATACGTCCAAGCAGCAACAGATCACACAGGACTTGAAGTCCAGTGGGATCTTCCATTTATGGGAGCGCAGGACAAGCGAATGCTCGTCTGCC[C/T]G AGGAGTTGCATACCAGTGTAGCTCAGCCACAAAAATCAGATAAGCATGAAAAGGTTGCAAGTAGCAAAAGGCCATCAGCGCCTCGTAAAAGAAAT	C/T
1	PERL_262340_Ler	GATTTGGTTGGTTGTGGCAGGGAAAGAAATGATTTGGGGATTAATAACGCTTAAACGCTTCAATGGTCCAAGACTCCGAGATCATTGTTCCACATTCCATCAATACA GCTTCAAATGGCAATCTTCTCCATCATCTTGTGGCATATTACGATTTCTCAATGGTCCAAGACTCCGAGATCATTGTTCCACATTCCATCAATACA	A/G
1	PERL_264296_Ler	AACAATGCCTTGACCTCTACGATTTAAACGACAAAACATCAGGTAATAGGGAAATTAATAACCTTAAAGAAAGAAACAAAGGGAGATAAGACACCGCCA[G/A]AAA GGTAAACAGAACCCAGCAGATCAAAGATATCTTTTCAAGATCACTGAGACAGAACTAGCCTTCTTGCATCTTCAAAGAACTAAAGAAATGGGAC	G/A
1	PERL_266525_Ler	AGGTGGTAAACCTGACGAGCGGCTCGATAAGCAGTTAATCTCTTCTTGGATTTGAGCAGTTAGACACCCAGAGTGGCGTAGTCTCCGGAAG[T/C]A GCAAATACGACGAGGGAAACGGCCCGTCGATTTTCGATAAGGCGTAGACGAAGAAGACGAAAGATGAAAGCGACAAGAAGCTCTTGTGATACCTGAAATTTG	T/C
1	*PERL_268547_Ler	TTCTGTCCGAGAAAAGGAAAGCTCTGTTTCGAGCCACTTGAACCCATTACGAACTTGAACGGAAAGCGACCAACTGCGGCTGATTCATTGTTGCCACCGCC[G/A]G ATTTTCGAGACTGCAAACTACCCAAAAGGCTGTTGATCGGTAAGAAGAGGAAGCTTGTGAATGTTGATGTAGTTGAGAGCATGCGTAGAATAGCTGTCC	G/A

2	*PERL_269150_Ler	ATTCCCCACTTCGGATCCTTCATGACTCACAACAGCTATTTTCAGACATCAAATCCTCCCGCTGGAACCGCTGAGACAAAGTCGACGATGAATCCAAGTC[G/C]AAA CTAGCCTCATGGGCATGCGAACCACATCGCATTGAATACACACACCACCTGGTCTCCCAACATCTCTTTGTTCCACACGCGATCGCTTCCCGTTGGAT	G/C
2	PERL_270864_Ler	TCCTCATGGTCTCATGGTCTCATGGTCACTGGAGCTCCATTGTTGGCGTAAGTGTGACAAGGGCAAGACATCTCGTTAGCCTTCTCACTTCTCGAG[C/A]CG ATCACAACCGGTGCTTAATCAATCCTCCTTCTGCCATATCTTCAAATCCATCCGTACACGTGTCTCATCCGTCATGCTGCACCTCATCCACGTCT	C/A
2	PERL_273021_Ler	TTGGCGTTGTTGCCCTAATCGGTGTCCCGTTTCTAGAAGTTCCTGGCTCGCTATAGGAGTCATTTTCAGTTCCCATGTCTCTCATTGACACAGACCTTGC[C/T]GTT GAAGGCGGTTGAGCAAACGCAGTTGCGACTGACGAGTCATGACGGCTGAGATTAAGTGAAGAAAGCAAGTAAAATTTGGCTTTAGAAGATAAATAGA	C/T
2	PERL_276304_Ler	ACTTGTCTGTTACATACCACCTCGTGTGAAGGTAAGAGACTAGACTATCTTCAGTACGTGAGGAAAAAGAAAGATGGAGCATTGATATACGCGGCTCA[T/C]GC AGATTACTACATCTTTTGGCGGTTTGCTAAGTAGCTAGATGATGTAGGAATATGCATAGAGGTGTGTTGAGCTTTGAGAGGAGATTTGGCTT	T/C
2	CER427280	CATACCAGTACTCCAATATATGATCCCAAAAGGGTCCACCTATAAACTTCCCTTCACAAAACGCTTCAACCGCTTTTTCGATAGGATAATCCGCGGTTTC[C/T]TCA GGAGCTAGCTTTTTCCAAAATGCCATAAGGACACAACATGTCTTAGGGTTCCTACAACAATACACAATCTTACAAGACGAGCTCTTAACAGACT	C/T
2	PERL_281027_Ler	CGTTTACTAAATACTAAAAACAAAAAAGAAATATATATCTCCGACTTATAATTACATATACAATATTTGGGCCCTTAAACACATAAGACCAATCGAAT[A/T]GCCTT GCTGTATCACCATTCAACCCCATGTATATGGTTGAGTTTATCTTAGTTAAAACAATCCAACATTTCCCGACATCTTAAAAAATTTTTTTTTT	A/T
2	PERL_284251_Ler	TCACCCATGACCCGAGAAAAAGACGAGCTGTTTTCTCATTCTTTAATTAATCGAAACGTAAGTCTATCACCCACTGTCTATCTTTTCATCGGAA[T/C]CGTC GTAATCTCCCTTGTGCTCTCCCTCATTCTTAACACACTATCATCGTCCCGCAACTCTGTTTTTACCACCAACATTTTCACTCTCGACACT	T/C
2	PERL_288159_Ler	ATTCACTTTAAACATTTGCACCTTCGGGAAATTAAGATAAATGAAAAATCAAACCTCATCATTATCTTCTTGAATCGCTTATAGGTACGTAGTAAAGGCTG[G/T]CCAC TTTGTGGAGAAGACACTATCTTACCAGGTCTGAGCAGTTTGTAAAAAATGTTACTTCTCGCTTATCTTGGCCAATCATGCATCTCATTGCCCTA	G/T
2	PERL_291873_Ler	ATTTGATCCGTCGAAGAAGTTGAGGGTGTGATGACACCCATCTGGTATCGCTTGACACCTACGCTACGTTGCGAGCAACGAGTTGCGCGTTGAGTTGC[A/G]C CTGCTCCATTATCTGACCTCATCATGGATGATTATGTGATCATCTAGTCTCTGCCAGTGACATTATAGGCTTGTCCATCATCTCTCAAAACTCA	A/G
2	CER442147	CGTTTTATCGATTTTTTCAATTTTTCTAGGGTTTCGCGCCGGGATCTAAAAATCACAATCATGCCGGTGAGTTTGACTCCGAACGCAATCACGGCGATA[C/A]ATG ACGGCGACGTGAATTTGAAGCGGTTGTTACAGTTTTAGAAATCAAATGATAGGAAGAAGTCAAGAGAGAAGCCAGGAGAGGTATCGTTTCCCTCAT	C/A
2	PERL_298019_Ler	TGTCAGCCCAGTACATATATAATCTTATGAATACAAAGACTCATCGTTAACGCTGAATTACATATCTCCTTCGTACCATTCTTCCAGGTCTTCCATGGCT[T/C]CCGA ATCAACATGGACTCCAGCTGACTTCGGAAGGTTGAGATTTGCTATCATTGTCAACACCAGACAAAGTAGACTTTGGATACATTGCCAAGTATCT	T/C
2	PERL_301285_Ler	ATTCATCAAACCTCCTTCTTCTATTACGCTCTCAAAGACTTCACGGTTCCACTTTTTAATTACTCTTTAGAGCTTTAGAGCTTACAGCGTCTCT[C/A]CTTC CGTATCCAAGAAGCCTGAAGCAAATCCTTAAACCCTATGGGTAAGCCAAGCCGCTTCAAACCGGAAGGGTCTCCTCAGCGGATTACTCCGCAC	C/A
2	PERL_301533_Ler	TAATAGCAGTTAAAACAACATGTTATATAAAATAAATACATGCTAACATATTTAATATCTAGATAAATTTGTATGAACGTGCCATCTCAATCCACGTTTT[T/C]CATTCA CGCCACCTCTTTTTTGTCAAACCTACCAATACTGATTTAATATCTTTGTTTCGATTTGATTTTATGTTTCCATTATTATTCTTATAGTTTTGT	T/C
2	PERL_302774_Ler	TACCAAACCTGCACTAGATAACCTGAGCCTTAAACTGTTCAAGCAGGGAACTCCAGTGAGATCATTGTCAAACCATAGATGTCACACAAATCTCT[T/C]GGT GGTAGACTCTATCTGACACCCGAATGAAGTAGATAAGACTCCTTCTGAGCATTGCTTTTTCTGTCACTTACACATAGTAGACCCTAACAGAAACCA	T/C
2	PERL_304972_Ler	AGGATTCGATTAGAATTGAAGCAACAAATGAAAGATTACTTCCAATTCACACTACAAAATTTTCAATAAATCAAGGATTCAAGAAGAATTGAAGCGCGAA[C/G]GATT GAACGACGAAGATGCAAAGGCTTTTTCGGGTCCGCCGAAACCCGCTACATTTAATGGGCATGTCTTGTAAATCCGCAATCCAACGGATCATA	C/G
2	PERL_307094_Ler	CACATTTTTTGGATCAGTAATTGTACGTATATACATTGAAAAATTTCTGATCTCCGAATTTGTTATTTATAAAACATGACTTCTCGCGAGCTTCTAA[G/T]CACGG AACCATCCGTTCAAACCTCCCATAGTCCAAAAAACAGTCTCTCTCCATCTCATCCGCAAAAAAATTTTCTCGTCTGCTTACTTGGC	G/T
2	PERL_309922_Ler	TAAATCCAAGACCAGATTGTCTCCTCAATCAAATTTGAATCCATTCAAAGGTCGTTGACACAAATCTCCGCAAAAGCTATCGAGAGAATGGCAGCTT[C/G]TAA CGGTCAAATCTGCAGCTCGATTGGCTTCCGTAATCGTTTGTAAAGTCTTCTTTCTTAGCTTCTGAACTAATTGATTTAATGCATTTCTACATAGT	C/G
2	PERL_312769_Ler	GATCTTTTCCATGATGGTTGTGCACTTAGCAGCGTGAATCTCCTGCTTAGAACGACGCTTCTACGATAAGGGACAGAGGAGTAAGCAGATTCCGAGGTG[A/C]AT TGGGATTCGCACCTCATATGGTGCAGTCCGACCAATGTGATCGACACTAAGCAAGTTATGAACGAACTAATCTAGCATTACCTCGCCATC	A/C
2	CER445429	ATCATTTTTTGTAATGTAATGTTAAATTAATCAGAAAAATAAAAAATGGATCAAAAAATTTTTTTTATAATAATTTTAACTCGACTT[C/C]GGATGGT AAACCGGACTACCTTCTGAGTACCGGCTATTGTTTTGCTTGGTTCGATCATAGTAATTTTATAAATTTTAAATATATTTTTATTTT	T/C
2	PERL_319622_Ler	ACAAAAGACATAAGTCATTTGCCCAATATCACATGTGGCAATTAAGACATAATTTTTAGTGAATACCTTGAGATATTCTTTGTTTCCAGAAATATGTCGAGAG[G/T]GAAC AACACCAGATGAGGCTGTTTGGCTAAGGCCATTGACACAATCATCTCTCCATAACTTGTTTAGCCGCTTCTCCACTTCGAGAACAAGAGACTC	G/T
2	PERL_323687_Ler	AATTTGTTTACCTACAAGTAGATGATTCTACACCTCTAAGGAATGACCTACGCCACCATATCTGAAACGCTTGTGAGATTAGGGCACTCAGTCCCATG[C/T]TTT GAGAACCACCTGAACCATTCATGAACACTTGATACCTGCTTTTTACTGGTAGCGTAAAAGCGTTTCCCCATCCCTTCTACTTCCCTCATGT	C/T
2	PERL_326605_Ler	AAGAAATTTAGAAAAGACGAGAAAGTTTAAACATAACCTACATTGGTTCCGTGAACGATATTGAGAACCCCATCAGGTTAAACCAGCTTCCATTGCCAACTC[G/C]GCA AGTATTACAGAAGCACCTGGAGAAAGCAAGTAATATCAATAATCAACCAATCAATAGAAGGGACCTCTATAGCTATAGTGGAAAACAGTCAATCAAC	G/C
2	PERL_328856_Ler	TCCCTATTACAGAAGTCACATGGACACAATTGACAAGAACATAGGATACACTGTTTGGTACAAAAGAGTTACAGAGATACAGATGCGAAAAAGAACACCGG[T/C]AT CAAGGGCCACATCAATTAAGAAGCCTTCCGATTTCTTTCCGGGGGAATAAATAGATGGACATTTCTTCTTAGGCAGTTTACATTTCCG	T/C
2	PERL_330675_Ler	TTTTACCGCGTTGATTTCTGATGAAATTTGGCATTGTTGACATTTAAAAAGTTTTCCGCCGTTAATCTAGAGTTTCTCTTTGGTCTGCATAGTGC[G/A]GTTT TGTCAACGATATAGTCTGTTGCTGATCAGGTTTTAACGGAGGTGAAGGTTTTAAAGCCGTGTTACGCGGTTGAAGACGTCGTGAAGTCTCGAGTTC	G/A
2	CER433367	GGATTCTGTTTCTGATCAATATTTTATCCGTTGTTGTAGTAACAATGGGGATTTGGAGATGGCTTTTCTTACAGGGATGAGATGGTGAACAAGGTATG[G/A]TG CCGACGTTTTTACTTACAACACGTTGATACATGGTTTGTATGGAGAATAAGATAGAAGCTGCTGAGATATTGATTAGGGAGATTAGAGAGAAGGG	G/A

2	PERL_336286_Ler	TGGGTCCTCGGCTCGGTGTTAAGAGTCTGAAACATGAGCTCAGGCTCATGCTGCATTGCTCTGAGGACATCTGCAGAGGATTGGCCATCACAGCACG[G/A]GTCACTGCGAATCCGTGAGGTCCATCGCTCTGCAATACGCGAACCACGCTTGGTCCACCGAACAGATTGGGACTCCACCGAGAGCTTCTCCATAAGCTC	G/A
2	CER432380	AGAACACGGTAGTGAGTATGTTTCATCTCCTCCACCACCACTGGATTTTCATTTAACTTGGTTAGCCAGTTACAAGATTCTTGGGTTACATT[G/T]CAAA GGCGCATGCACATACCTGTACACTGTCAATCTCACACCGATCACACATCGTAAGGGTGTACGATGAATAAGAAGATGAGACTCGAAGACGGT	G/T
2	PERL_340933_Ler	TGGATAAAGGGATGGAGTTATATGAAATGATGAAATCAAGTGGTGTAAAGCTTGAGAGTAATGGTTATGCTACACTTGTGAGGTCTCTGGTAAAAAGTGG[C/T]AAGGTCGCAGAGGCTTATGAAGTGTGGATTATGCAGTTGATAGCAAGAGTTTGTCAAGTGTCTGCGTACTCTACACTTGAAACTACCTTGAAATGGT	C/T
2	PERL_343158_Ler	TGATCTGGACCAGATATGGTAAATAACTAATGCAAAATTCCTTTGCAAGAAAAAGTTGAAGAAGTATTGTTGCCACACTCCCACAAC TAGTTTCATAGCG[C/T]CAC CACCAGTAAACATGCATGTGTTGATTCTTAAGGGTTTTAAGTCGACATTAAGGCTAAATGTTCAAATAGTTATCTTACAGATTGTTTTCT	C/T
2	PERL_345444_Ler	TTTTTTGGGCATAAGTCAAACAATTCCTTATGGAGTGGAAACCGTAAGACTAATGTTGTAACGCTCAGTCCCTTCTTAGTGAGGCCACGCTTCTCCGG[T/A]TT GTGAGTCCATCCTTATCCGACAATCCTTATCCGACAGTCCGTATACTATGTCTAAAGATTTAAGGACTTGTATCCATCCTACAAGTTATCATATA	T/A
2	PERL_347732_Ler	AAAAATGAGCAAACTAGTGGTTACGTTGCGGTACAACACATCATTTCGATGCAACACATTTCTTCTTCTCGTAGCTCTTTAGCATCTGTCAGGCT[C/T]AAT GTCGTCGATTTCATGCGAAGTCTAAAAAGAAATTTAAGAATTTTACTCTCAACCCATAAACTTAAAGATCCGTTTGGTTATCTATCTTTGATTG	C/T
2	PERL_349483_Ler	TCTACCCAAGAATAACACAACTACTCGGTTATTCACCCAGGATGATGTTCCGGAAGAGAAACATAAGCATCGAGGACGACTCTCCAGATCCAGCC[A/G]A GCAGGTCAAGATAATGAGAGAGAATGTCAACCTCATCCAAAGGCTGATCTACGCAGACCCGAGATCAGAACTGGAGACGCAGAAAGATGCATTTGA	A/G
2	PERL_351339_Ler	GGTTCATCATTGTGTCAGTTAAACATTCCTTTGATAATCTCCTCTTTACCAGAAAACCAAAAAGGTTTCCAAGGTGGAAGTAGGAACTAGGTCTACCGA[G/T]GCA TCACTCGATGAATGGCTCGAGGTTCCGCTCTCTCTTTGTAAGTCTTCTCCTCTTCTCCTCTTCAAGTGTGATTGAATAATCTGATTGAAGGGTATGT	G/T
2	PERL_353122_Ler	CTCTAAAAGTACAGAAGCAAATCTATGAATTTACTACACCGGCAAGTGTTCATCTTGGCTCAGGGCATTAGCCAAGCTATACTCTTTGTGATTTCAC[T/C]AGTT CCGGCAAAGTAGTCTAAACCACACTATGCTCAACAATGATTGTTGCTCAGGACATACATAACACAACCAATAACGATGAATCAGAAGCAGACCTG	T/C
2	PERL_354658_Ler	TCTTTGAGAGTATTATCAGTATCAATCAATCTAATGTATTATTTTAAATTAATATTATCAACCAGTATCTATTTGATTGTTGATTGCCTTTCACGCCT[G/A]CACATA AAATTCAGAGTCGTCGATATATGTATAAAAAATAATCGTGTGTTAGCCATTAGCACATGAGCAAGTCCAAATCTCCCTCTCTCTCTCTATC	G/A
2	PERL_356299_Ler	CAGCACATTCTCCAGAACTTCTGCTTGATAGAGCAACCATCGGTGGTACGGTTACAATTCATCAAGAACTGTTCTCCGACGTTGGTGCAGAAATTC[T/A]CG CCGAAAAGCGGATTCATATCTTCAATCTCCGAGTACAATTTGAGAGAGACCGACAATATACTGTTTTCCGTCACGTTTTGAACGGAAAAGTCTCC	T/A
2	PERL_357977_Ler	TTTAAATTCATATCAGTCTTAAACAATCCAGGACAACCGAGTTAACGCGAATCTCGGGATGTTTTTCGCTAAGATCCTCGTGAAGCATCAAACCG[G/A]CTT TCGAAACAACGTAAGCCGACATGACTTTAGCCCAATATTTTGTCTTAGCCGATCTTCTTTCAGATCATTGAGAAGTTGGTTGATCACTTGGTCAAT	G/A
2	CER429760	GCATTAACCAACATCGTTAGATGTAGCTAGACATGCCACATCAGTAGAATCATTGGGAATCACCGACCGCCGATATCGCCGTGGCACTCACCGGTGCC[G/A]T ACCTATTCGGTGGTCTTCCGGCGATGTTAGCCCTCATAGCCTTCGCTTACTTATCTAGCCTGCTCTTACTGGCGCTTGTCAACCTCCGGTGTAGTACT	G/A
2	PERL_362547_Ler	TTTTTAGAGAAATGATTATTGGTAAGTAAATAAATACTCTATTTTGGGCCCTTCCGGACTTATTTTTTACTATTTCGAGGGTCTAAGTCAATTTG[G/A]CTGCC GACCTGCTAAATATGGGAAAGGATCCCTCCTTCTTATTTCTCATCACTAATCTCATAAGATATAAAAATTTACTCACTCAATGATTGTGTCCA	G/A
2	PERL_364614_Ler	ACTGCTTGAACAATTGGAGTGACGAACACTCGTATCGCACATGTAAGGATGACATCCACTAGAAGAAGAAGAGCATGTCAAAGAACAGCATTGTGAGG[T/C]G GTTCCATGCAGATTACACACCGCACATCTCCCAACCTGTCTCAATAGGCGACTCTGACGCCTTGTGTTGTGCGTCCGAAAGACCGAAGCGGGTATG	T/C
2	CER427000	TGTCTTACCGGCCCTATTGGGTACGTCGCTGTTCCGGTTCCTGGACCGGTCCGATCACAAGACTCTTCTTCTGCTCCTTACCGTCCCCATTGGTTGAT[C/T]CA CCCGTTAATAATGCTCCACAGTATCAGATGGGACCAACACCAGCTTCACATAGCGCAGCTTCAGCAGACTTTATCTTACTTTCTCTTTTGTATCTTAC	C/T
2	PERL_369404_Ler	GCAAATAGAATAAAGTAAATGAGACATAAGCAATCAACCAATAAGAGAATGTAACACCCCTAAGAAAATGTTAGGCTTAAGACTTACCTTGTGCTCTT[C/A]GCGA TCTTGCATTCGTGGAAGAGCCGCTTATGTTAATGTCATCAAACTTCATCGTATGCAAAAGCAGAAGGATCCTCCTCTATAGCTTTCTTATGCT	A/G
2	PERL_371102_Ler	ATTTGATGAACACTACTGATGACGTGTCGGTTTTCTGAAGATACGACGCCGTGCTTTTTGGGTTAATTGCGGCGACTCCGGGAATGTAGTCATTAGATCGC[T/C]GC GGGTTTTCTGTGATAAAGAACAATAAATTTATGGGGAAGATTAGATAATTAAGGAAATGAAGGATGCGTTCTGTAATTAGTTAAAGGAATAAATAAA	T/C
2	PERL_372171_Ler	CTTCTCCGTAGACAGATTTGTTGCATCTATAGTACCAGCCGTTAGCCAAAGTGAACCCGAGGCTTACTCTCAATGCTGCTAATCGG[A/C]CC TCTTACCATTCCAAGAAAGCTGAAGCCCTCAAGCCGCTACAAAACCGATTTAAGGTAACAAGTAACAACATAGTATTTTAACTAGTATTTTTTTGTT	A/C
2	PERL_373965_Ler	GGTAAGGCTGATGAAGCTTAGGGAGAATGATTAATGGTCCGTACACAGTAGCTCTCATCCACTGAATATGAGCATGCCACCACAAGGTTCCCTTTGTCC[A/G]GT CACCGTGAAGTTGTAACATAAATTTGTCCCATCGAATTGGACATTGTGTCACATAGGACGGTCCATCCGCCAACCCTCTTACTGCTCCGGATAC	A/G
2	PERL_375688_Ler	TTTTTGTCAACAAAATTTTTGGACCTTGACCTATAATCTCATGCGGTCCGGAACTAGTCCGGAAAAACCGTTTACATAACATAGTGACAACCCATGC[T/C]GCC TCAACTATGCTTGAATGCTTGAAGTTCGGACATCCAGATATGCTCGATTGATTGCTGCCACTTTTACTACCATTCCGATCTCTATCTTGGTG	T/C
2	CER442035	ATATCTGTAATGGTCTAATAAGAATATGGTATTGTCATGTTATCACGATATGAGCAAATCAAAGAATCAAACCAACAGCTGTTGTAAGCCTGAGG[C/T]GCA GAAAGAAGCTCTTCCCATCGAAGTTCCTCCTTGTCTGTGGATGAGGTTAAAGAAAAGACTGACAATTTTGGATCTAAGTCTCTGATTGGTGAGGGT	C/T
2	PERL_378201_Ler	TTCCGACGAAAGCAGATCGTCCACCGAGACGAGAACACGCGATTGCGACGTTAGCGGGAGCACCGCCTGGAGCTTTGAGGAATCCAGGAGCTTCCGGCAG[A/T] JGAGACGCTGATTCGGTAGGAGCAGAAATCGATTAGCATCTCGCCGAAGTCAACGATCAGTCTTATACCCGTTGATCCGCTTTAGATCAGAGATCTGT	A/T
2	PERL_379592_Ler	TTTTTGTTCATCAGTACAGAATCCCTGGTGGTGGACAATATACCCTGGATACACAGCAACTGCAATTCGCTCAGCAATGATCAGTACGCCCC[T/A]ATT GCGATTCTGATATTCATCCTGCAAGGTATGCCTTATCGAACAACAGTAGAACTGGCCTATGGTTTTTGGAAATGTGTTGGTAGTTTTAGGTATAAAG	T/A
2	PERL_381438_Ler	CCTATGTTAAGTTCAAATTCATGTTTTGATTTAATCTTATCTACGGTTGTAACCGTTTTAATCTATCTCATTATGATCATTCCGGGACTTTTCG[G/C]CATCGA GTACCCGGTTTTCTTCCGGTGTAAATCGCATTGCAAGATTAATAAATATTGTTGACAAAAAAGGGTTTTCAAATTCATGACTTCAAGCTATAT	G/C

2	PERL_383347_Ler	CGGAGGTAACCCCTCGCCATTGGGAAAGACAAAAGGAGATTTGCATGGTAGCGATCTTGACCGTCGATGTTCTATCTTAGAGATCTAATGGTTAGGAATT[T/G]ATGGCGGTACCACCCCGGTCAAAGTAAATGCGTACCGCTCGATATTTGACACGTCGCGGTAATTTAGCTCCGGTTTGACAGATAGACGATACGAGAGATTACC	T/G
2	PERL_384706_Ler	CTTTCACCCCAAACTAAACCTTTGAGATGCTTACTCTAAATCTGACTTTAGCTTGTATTATTTGTCTTAGCGTCTACATCTGTGCGAAATTC[T/C]ACACAACAGCTGCGTAATTTCTCCATGACACTATTTGCGTATGTTTTCTCAATCTTAGTCTCATTCAACCAAGCTTAGTGTTTTATTCTGTACACAACCT	T/C
2	CER427509	CTCAGTATCTGGACATGGTACTTCAAATAATAGTTTCACTAATGTGAGCAATTTGACCAGCCTGTGACTCAGCAAAGAGTCTTTTATTCTGAGCGAACT[G/C]TACGAGATCCAACAGAACTAACCGTTTGTCTAAATCTGATGATTCCCTTGCTTCTCAATTTGTAATGGCTCAAACACATCAGATGCTTTCCTGCCTAT	G/C
2	PERL_387436_Ler	TGTTCAAAGGAGCAGTCCCGAGGTTCTTCTGGGTGGCTCCTCTAGGTGCTATGAACTTTGCTGGGTACGAACTAGCCAAAGAAAGCTATGCAGAAGAACGA[A/G]GATGACAGTGTAGCGGATCAGCTTGGTCAGAAGAAGCTTGTCTAAATGGGATTTACTTTGCTTTGCTGTCACGAAGTTTTTTGGGGCAGCTTAAAGCCGG	A/G
2	PERL_388688_Ler	TTTATCTCTATAATACATTTGCTTATCGGTTTAGTTATTGGTCTTAATTTGACTGATCTTATTGTGCATGCAGGACAATACAGGTGTGTTCCCGTTGAG[T/C]TATGACCCCGTCAGACACAAAAGATAATTTACTTGGTACGCCAAACAGTTTTTACTTGTGATGTTTATCTGTTATATTTAGACATGTTTTTTTTGTTTAT	T/C
2	PERL_390343_Ler	TAGTGAACACTGAACAACGGAGTGATTTGGAAGGCTTCTTCTACCAGAAAGCATAAAGCATCGATAATAAAAAGAGACAAGCTCCACAGGCTTTGCAG[G/A]CTAACCGCAAGAACCAAGCAACTATCACAGTAACAGATAAGAGCTTGTGATTCATATAGTCTAAAACCAAAATGCTCAAACATAATCCAAATCTGAT	G/A
2	PERL_391711_Ler	TTGCTAATATCAGAAAAAATAAAAAAAGTACATATTTGTAACAACACTACAATAAATAAAAAATTTTCTTAGTTTAAATGTTTTCTTACCAGGTTG[A/G]AAATTTATCCCTCTGAGTAACATCAGTAAAACTACTCTACGAATACCCTGAAACATACATATAAAATCAGAGAATTTTTCTACTAAAACCCGGTCTTTTC	A/G
2	PERL_393403_Ler	TGCAAACTAGTTTTAAGCAGTTCAACAAGAAATTTTGGGCTCTTCTTTTTCGCCTAAACAGTTGTTCAAATTTCTAACTCGATCATTGATTACTGC[G/T]AAAACTCGACCACCTCATTGTAAGTTGTTGAGAATTTATGATGTTTTCTTTGCACTTGTTCCGAGTAAATAGAAATGTGAATGTAGTAGCTAGCTGTGCTTT	G/T
2	PERL_394981_Ler	TGGCCACGCAGATGGATTTCTCTTTCAATAAAAAGTGCACAATAGTGTCTTCAATAGACCCCAAAAACATATGTAAGCTGTCAAGGATAGCTCTAC[A/C]GGGTACGACTTAAGCGTGATCGCCTGCATAAAACAATCATTITAGTGGTTAGTACTATATAAACCGTTTCTAATATATTGAACAATATAAAATTTGG	A/C
2	PERL_396668_Ler	TCGATAAATGGGAACTCATGACGCCGGAGCAGAAGTTAGATCCGAGAACTTTTGCTGATTGTTATCATTGGTGTCTTCCGGGATTGCCTGATTCATGGA[A/G]CGAGTTGCTCTCTGTATATCATCTACAAAATTTAAATGTTTTCTGATTGAATGTGAGAATTTGCAAACACCAGATTCCTTCTCATCGGGAACGTC	A/G
2	PERL_398212_Ler	AAGAGCATGAGCAGCAGCAACAAAAGGTAGATCAGAGTGACATTTACATATCGTAAGGCACGCGTTTTGTACAGATCCGAAGGCCAACCGAGGCGTTGCAAC[C/T]GCTTGACAGGGGTACGCATGTAAGTAACGAGTCCAGGGTTTTGACAGATGCAATCTCCTCCGGTTTAGTCCCTTGAGGAGGTGTCCAAACAAAATGGT	C/T
2	PERL_400707_Ler	TTTCAAGACTCGGATTTTTATCTATATTTAGAATTTTATAGAAGGTATGGCTTATGAACTATTTAATGATCGGAAGAAATTTGAGACTCAATACCGAAGTTC[G/A]AAGACGAGTGGACAAAACAGCAAGATGTTCCGGATGTATTGCTTGATGAACTCAGGAGGTAATGATCAGAGTACATGAAGCTGCAATGACTCATGCC	G/A
2	PERL_402952_Ler	CGTCGCTTCCATCGCAGCAATCTGAGAAACAGACAATGTCATGCTGCTTATCCAATCCAACAAAACATGTAGATTACTAGCATAACAGCAAGAGACAGCT[G/T]AACGAGAATCATTTAGTCGAATTCAGAACATTAGTAACTACTGACCACAGATTCGATCATTACACGAGAAGAGTAAACGAACTTTGGAGAACTTCCAA	G/T
2	CER425424	TATGCCAGGGATGGTGGGGAGACCCCAAGTTACCGCTCCAGGAGCTGCTTCTCCTCCTCCCCACAAGTTGCTGCTCCAGAGGCTGCTTCTCTCCAA[C/T]TGGAAACCAACACAGCCAATACAACCTGACTTTTTGTTAATGAATCACCTTCTCAGAAAGTTGAGACTTTCGATGAATTTGATCCACGCAGTGCCTTTTCA	C/T
2	PERL_407406_Ler	GAAATCTTGTACAACGGTGATGTTGTTGGTGAATGAGGATTAATGGACAACGAGTGGCTTCATTTGGTGACTTAAGAACAGAGGTTAGTGCAGAAGTGG[C/G]TTACAGAGGGAATCAGAAATCACCTGTTTGGTTGAAGAATGATATAGAGAGAAGGCTAATAATCCTCGAGACCAGAGCTAAACTAAGAGGTGAAGTGCAC	C/G
2	PERL_409455_Ler	GGTGATGGAGGAGGCATCAAGTCTAAGGGAAAAAGAAAGGAGGCAAAAATAAGAATAAAGGAAAGAAAGGAGGTTGGCAAGAAGAGAGGCAAGTAAT[C/T]GCGGTAGCTCTGTACAAGTTTTGAAGCGTTTCAAGTATCATTGTACTTCAACAGGATTACTCTTGAATTAACATTACAGTGAAGAGCTATGAGT	C/T
2	PERL_410860_Ler	AGATGATTTTGTTTTTATTTTTATCACAAGGGTTTTGAGCAATTTAAACAACACAGAGGAAAGTATTACAATGGCTAATTAATGGTCTGTTTTCTTTACGGGAA[T/C]GGCATATAACGTGTTGGTCTGTGTAATGTGATACCAAAGGTCTCGTCCATATCCAAGTCTCTGAAACGACACCGTTAGGAAGCTTCCAGTCAAAGGAA	T/C
2	PERL_412300_Ler	GTTAAAGCTATTTAATAACCCAAAAGACTTCGAAGAATATATGAGATTAGCCCCCTTTTTTCATTTTCTTAAAAGATTTGTATAAGATCTGCAGTGC[G/A]AAGGTGAGATACGTCTATATTTCTATAAGATGAATAGTCTGCTAGCTACTTTTTTGTGTTGGTACATGTTATGATAAATGAAAACGTTTAACTATG	G/A
2	PERL_414078_Ler	TTCTTTTTATCTACTGGGCTTTTTAGTTATTGTCAGATTACTGAAAACCTTTTTCTTACTTACTGGGCTTTTTAACTAGCTAGTACGGCGGAAT[A/C]GTGAAACCCGACAAGCCAATTTATCTAAGATTTTGGATTTTGGCAATTTGCCACCAACTTATCGTGAACCCGACAAGCCAATATACACACTCAGCCAAT	A/C
2	CER448159	TCCCCAGCGCCGACGAGATCGGAGAGCGGTCTCATTGGTCAAGCTCGTCCGCTTGGAGCTTGAAGAGCCAGCAGCTCTGCGTCTAGCTCACTCAG[C/A]ACTTCCAGAGCCGTTCTGGTGTCCGGAGACCGATCTCGCCGGGCTGAGGGGAGAGTGCTGTGGATCCTCCCGAAGCTGAGCTGGCGGCTGATCTCGT	C/A
2	*PERL_416019_Ler	AACGCAAGCCTCAGATGGAGACATCCATCATGAGATTTCTCCACGGGAGATGGTGTACTATTGACCATGTCCCCTGAGAGCTTAGCAGACACTTCAAA[G/A]AATTTAGATTCTCAACTGCAAAAGTATCATGACTAGAATGATACAGAAGGGCTGTCTGTGCTGTGACTGACCACAGTGTCTTGGTGTATCT	G/A
3	*PERL_416091_Ler	GAACTTCAAAAATTTTTGAGTAGATCAATTCGCACAATGTTACTCACCAATCCGTAGAGTTGACTTGTCTGTTGACTAATGATAGAGAAGGAGAATGGGCTTAACATGAACCTGTGTTCAACTCTTTGACTGATCATACTACTTGTCAATTTTGTCTTGTGTTGACTAATGATAGAGAAGGAGAATGGG	G/C
3	PERL_416091_Ler	TCCTAGTCTAGTAAATATTGGTTGAGAGACCTGATAAGTGAACATTTGATGTTGATACCAATTTGGACTTTTGACATAATGACAACATACTTTGGTAAATTAT[C/T]GTCTTCGGCCAAGATCATTAAAAATGAATCAACGTTTTAGGAAACGTGATAAGTATACTTGAAGGGCTGGCTTAAAGCGCAACAAATCCAAAAAATA	C/T
3	PERL_420280_Ler	GATACAAGCAACAGCGGCAGCTACGATCTGAACTTTGAGGATTTGATATCTCAAGCTGACCCGAGACTGACACTGACATAAAGCTCTTCTGCAGAGGA[G/A]C GCGATGGAGCTGAAGCTACAATCGCCACTACATCTTCAATTTGAGGAGAATCCCAAACTATCACAATAGAAAAGAAATGTGAGCAGCAAAAATGCAAA	G/A
3	PERL_422425_Ler	AACCTGACAGCTCTTTTGAATTTAATTATGTTGCTTGTCAACTAATTCAAATGGATCTTGATTCCAAAATAATGTTACTAAGAAAATATTTACGCTAG[G/C]CCAATTTGGTTGTGGATTTACGATATTTGGGCTGGGCCAACGAAAAGAGCATGTGGCCATATTTGATCAAGTATTGTAACCTTTCATTAGCCGTATGT	G/C

3	CER473550	GGATCCTCTGTGTAGGATTATCGTTCACTTACCAGCTTTATATCTGCTGGACGCTACTGGATTTTATTCTCTTGGGCTACAAGCTCTTGGGATTCAAGT[T/A]TGT AGAGCTACAGGGCAAGAAGCTGGTATTAACCTTCTCCTTTCTGGTTGAAATTTTCGTGTCAACCATTATCTTACTATGCACCCCATAGAATTAGGGCGCT	T/A
3	CER468485	AGTTAAACCGTTAGACCAAAACGACGTTTTGGTACCAAGAAATAAAATCGCAGTTTTTTTTGGTTAAAGCTTGATGAAACACGAGACTTTGGTTCTGT[A/G]TTGT ACAGAGTTTTGTTACTTTTCAACGCTCCATATAGTTTTTTTTGGAAAAAATAATGATTTTATCCAAAAATAAAATGTA AAAACACTAAAA	A/G
3	PERL_429038_Ler	TTGAGGCTTTTTCTGGTTCATATACTCTTACTTTTTACTGCCAATTATTACCCAAAATATTCCCTTTAATTTAATTAATGTTGTATGTCTAGTGTCTC[T/C]TAGTGG TGCCCTGCATAACTCATGATTTGTGAATGTGTCGGTCTACAAGATTTCGATCACCACAAAATAAAATAACAATCACTACAATACATAGAAAAAAG	T/C
3	PERL_431508_Ler	ACAAAAATTATAAAATAAAAAGTGACAAGAAATGAAAAGAAAATAAAGCTGCATCGCCGTTTCAAATCCAATATTGCAAACGTTATCCAAGTCTGTCCGGC[T/C]GAAA TACCGGCAACTAACCATACTCTGATATGTTCCCTACTCATAAATGCTAACATGCTTAAAGTGCATAATTTTGGTTTTGTTTTGGATTTTACTGAT	T/C
3	PERL_433766_Ler	TATAACTTGTACTGAGAGTGCAAAAAGAGAATAATTGCATGAAGAACCCTAATGGAGTTGGATTAGATGGATCATGAAACTTGGGTTTTATTGTTTTCTAGGC[C/T]CAC GTTTTCTACGCAATTAGTTAGATTTTACATGCATATTGATAACAAGTGATTATCATCTCATATATTAACGTAACACAGAGATGATGGTTGGAGAA	C/T
3	PERL_435300_Ler	CTGTTAATCTGCAGTGTGTCAAGTGCAGAGGTAGAGGTTTCCGTAATGGTCCCTACAGTCCGATTTCCCTTTGTCCCTGGTCTCCCGGTGGCTATACCGTG[T/C]GA GATCACACTGCTTAATGTGCCAAGAGATACTGTTTATGGTGTGAGAATACAAGAACGATGAAACTTGGCAATTTGTGTACTTGGATCCAAACCTCT	T/C
3	PERL_437189_Ler	GTATTCACACATCAATCAACTACTAGTTTTCTGAATAATTTTTAAAAAACCCTAGAATCAAAAACCTCATGATTTTATAAAAACAGAGTATGCC[T/G]GATTGT GCTCCTCCAGGAAGGGAGAAGTTTTGGTTAGTTATGTCTTCAAGAACCGCTTGAAGTTCAGCTTTCGCTGTCTTAAACAGATATTTTCGGTAGGCC	T/G
3	PERL_439306_Ler	ATATGGAAGTCAATAAGCGGTAACAGAGGATGCTACTTTAGAATAACAGAACGAACTATCCAATAAAAAGGAAAGACTAACAGATATTAGAAACCTGTGA[A/G]TA GTTTTGAATGGCCTTGTGAAACCACCATGATAAGCATGGACAACCTCATCAACAACCTCCTCGACAACATCACTTTGTCCCTTAAATATATGAATGT	A/G
3	PERL_442052_Ler	TATTATAATATAGAGATTATAGATAATTGTATAGATATTGACGTTAAAAGAAATATGTATATATTACATGGAACATCATAGGGAATTGAATGTTAGTGG[A/G]CATT CGATGTGAGACCGCTTCAACTTTTTGACTACGATAAGAACAACAATCTCGCTGTCTGAGAAGCTATATACA AAATGAAACAACCTCCAATGTA	A/G
3	CER477518	TATTCGGACAAACAGCTCAAGTTTTCTGAGGCTTGTCTGAAAAGCCGAGTTCAAATGCGGAAATGAGGTTTTCAAGAACATGTTAAATGAGACGATGC[T/C]AAAT TACAGAGGAATGTTGTCGTGATATATTGAAGATGGGCAAGATTGCCATCTAGGATTGGTTAAACTCATATTTGCCACATATGAGTATAAAAATATT	T/C
3	CER437449	CAGACGGTCCCTTGTGCTCTACGCTCTAAGATGATTTCCCGCATCTGACAAGGGCAGGTTCTTTGCCCTCGGTCTGTCTTTTCTGGTACGGTTTTCTAC[T/A]GG TATGAAAGTCAGGATCATGGGCTCAACTATGTCCCTGGTGAAAAGAAAGATCTGTATGCAAAAGTGTGCAGAGGACTGTCATTTGGATGGGTAAGA	T/A
3	PERL_448757_Ler	ACCTGAGGATTAATGGACGGTGTGGTTTTACAAAATCAATATGGGCTAAGATTTATTATAAAATGGGCTTACAAAAGCACAATGTTATGTTATCCTCCAA[A/C]TTCCG GGCCTCTAACACTTGTACACAACCTACACATGATATGAATACAAGCATATCTTCGTTTACATTTATTGCATCATTGCATATGTGTACACAATAAGT	A/C
3	PERL_450708_Ler	ATCTAGCCGATAAAGAGATAACTTAGAGAAGTGTGACATGTTTTGCTTCTATCTTACATGATAGTTTGTGATGCCGTCAATTTGATTTATGTGATGGGCTGT[G/G]ACCT GGGCCAATTCTTGATTAGGCCTGCATTA AAAATATTCTGCCAACGGCTAGAAACTTTTTCTCTTCTTATAAATTTACTTTTTTGGCCTAATCCC	T/G
3	PERL_452986_Ler	ACGTGTCTTTTCTATCTCACTCATACCCGGACGGACCGGTTCTCGCGTACGTACGCAATAACAGCTTCCAAGTAGTTTCATTTCCCAACCCAAACCGTGT[G/A]AT TTTTGCGTTCTGTCTGAACATCTTATCCCTGACATACCCGAGAACACCCCTACTCTCTTTTCGACGTTTTCTTTGGAGTAAAGTAGCAATGTCTGGTATAA	G/A
3	PERL_454858_Ler	GAGAATCAAACCTTTCTTTTAGTTAAAAATGAAATACAAAACCAATAAGTAACCATCAAAACATCGCAAGCTTACCAAATTTCTCAAACCTCAACCCGTGT[G/A]CGTA AATAATACAATAACTCTCAAATAGAATACACAATAGACTAAATGATTAATCTCCCTAATCAAAATCTACGCAACTATCTTTAAGCTCTCCATGCA	G/A
3	PERL_457971_Ler	CACTTTGGGCTCCACGACTGGAGTAAAGTAGTTAATGCGGTATGAGACGAACAGTTTCTGTCAAGGCTAATTCGGCTGCGTTCTTATAGCCATGGTTC[G/T]CT CCCTAACCCGGACACTCCCAATTAATCTTTGGACTCGTTTCTCCACCTCTGTAGAGCTCACGAAACCCGCTCTGATTCATTCATCGAAATCGCAATC	G/T
3	PERL_460787_Ler	TAGGGTTTTACTTCCACGCTTTCAACTTTTTATATTGTGACGGCTCAGTCAAATAAGTTACTCGCTCTGTTTTTTCGGGCCGAGAAGACTCTGGCCTC[G/A]ACC CGTAACCTCCTAGATAACCCAACCTCAAACCTCTCCTTTGCAAATATCATTTCATCCGCGCCAACCACAAGTATAACATGATGAAAAGGAACGTTTTT	G/A
3	CER439712	TCCTCTGCTTCCGGTGGTTACAAATTTGAAGACAAAAGAACCCACCCTAACTGAATTGGGCCAATCATGGGCTTTAGAAATCTAATAGGCTTGTAAATGTG[G/C]CC GGTGAAAAGAGATAAGAGTGATATATTATAGGGATGAATTTGGAAGATTGAACCTCAATAAGACCAATCGGAAGATCACGAAGGTAAGTGAATCAAAA	G/C
3	PERL_466437_Ler	ACGTGTTATAAATTTGATCATTAGTTGCAACCTATGGAAGTTAGTTGTAGTATGTCAGACGTAATCAACTGATCAGAACCAGTTTGAAGGCTCA[C/T]GAA GATTTGGTCTGCAATAGCTGTTATAATAGATATCACTTTCGAAAAAGAGACTGACATTTGTTTTGAAAGCATGTTTAGATCTTATAGGTTGATCTT	C/T
3	PERL_468933_Ler	TACGTATAACGCCTGAATAAATCTTTCAGACCTGCGTGCAGCGTTTCGCTGCCGCCGAAATTTCCGATCAACCTTAATAAGGAATATGACGTCTCTGTCCG[T/C]AA ATGATCGGAAGGATTTGTAGATGGGCAGATGAAGTACTGGCGTCAAATAGCCGAATCCGATGTACGTTCTTCTTTCATTTTTATGATCTAATTTTCGT	T/C
3	PERL_471183_Ler	TCGAAATTTATTAGTTTTCTTCTCCTTCTTTGGGACCCACAAGAGACGAGACGCGCTTATCGGCATCGTCTGCTCCTCCGTGTTAAAAGTAAATGC[C/T]GTG TTGAGGATACGCATTAATGTGGAGAAAACAACATTTTTGTTCTATAAAAAAGTGAATTTATGCTCTCCATTAACCCCAATCTCAGAACACAAAACG	C/T
3	PERL_473449_Ler	TCCTTCTCCGATTTTCGTTCTCAGCCTTCGCATTTCTTTTTTAATTTCTGTTTCGAAACGCTTTCAAGGTTACGTCGATCTCAAAGTAAACATCGCCTTC[A/G]GAGA GAAATTGATAAACCTTGTCCAAATTCATTGTTATTCATGGCTCTTAGAAACTTTACCTAGATTACTCGGATTCAATCGTCAAGTTTTATATTGGAT	A/G
3	(1) PERL_476047_Ler	GGGCTCACACGATTGGCGTCTCACATTGTTCTTCCATGAATACGCGTCTCTACAACCTTCTGACTACAGTAAAACAAGATCCATCTCTCGATAGCCAGTA[T/C]GCA GCAAACTAAAGGCTAACAAATGTAAGAGCCTTAACGACAATACCCATCCCTCGAGATGGATCCCCGATGAGCAGAAGCTTCGATCTCAGTTATT	T/C
3	PERL_478227_Ler	AATTAACCCTGTTCTAGCACAATACTACAACATTAATTTGAAGGTGGCTAGATTACACCAAACATTCGTTCTATTGTGCAAAGTCAACGGTT[A/T]GGA GAGTTCTTAAGATCGCATTAGCTATGAACTTTTATTGTTTTGTGTCAGGAAAAAAGAAAACTAGCAAATGTTAATTACATTTAAGAGATATAAT	A/T
3	CER434254	TGTGTTAAATATATATATTTTTTGCATATTTATTGTTGCATATTGTGTTGCATATTTAGTAATGGTTACATTTCCCTGTTATCGGAGATCCAAGATAAT[A/G]CGGCT CTTGTGGCATGGACTACTACTCCATGGATTCTTCCAAGTAATCTTGTCTTGTGTGCAATGCAAAGTTTGTCTATCTTAAGGTTTCGTCAACAACA	A/G

3	CER477021	TCCTCCACCAATTTATTTCCATCGAAGTCACTACACTTTACACTAATAGTGATATTTCTGTTGGGACCTGATCTTCATAGGAAGTGCCTAGTTCTAGATC[C/T]GATGCGATGAATGATTAAACTCTTGGTGAAGCAATTTCTGAACGCACATAAAATACCTGAATGCGTTGTTGTTCTTGGGATAGTATGTGATAACATGTTT	C/T
3	PERL_597178_Ler	ATCCTCCACTGGCTTGTCTCCGGTGTGCGGTCTATGACCCATTGCACCATAGGCTTAAAAACAAGAAAGCAGCAGAAAAAAGATGATCACCGGACA[G/A]TGTACAGATAGGCTGTTGCATGTGAAACATGAATGTAGGTCGTTGTATAGAGGCAACTATCATGGAATAATCCCAAGATGTCGTTGATGACACATGC	G/A
3	(1) PERL_600735_Ler	ATGCAAAAAGATTTGACCGCATTTGAAGCAACATCTCCTAACTTCATCTTCTTTAGTTGATATAGAGAGCTCGGTTTCTGACATTAAGCCGAGCATCGCG[A/G]GTTGGGCAGTAAATTCCTCTGTTACAGGGATTAAGTCTTCTTTAATCCTTTGTTGCCACATCTCTCTTATTTTAGGTGTCAAAGATTTATACAGCCT	A/G
3	CER478878	GTCGAATCTTTCTGTGTGATAAGCTCTCTTCGAAGTTACTTACTTCGTCCAAAGAGATTCTCGCAAGCGTAGGCGGTAACCTGGCTCAGACATTTACCA[C/G]JACGGCAAGATCTTACCAGAGTCTCTAGCTACAAATTCGGTCACTCGTGGTCGTCATTGGTTCGTCCTATTCAATCCTTTTGACTACCAAACT	C/G
3	PERL_609298_Ler	TAATTCGTTTTGTTCTCCATAGTAGATATTTGCTTCTTTTGCCTTATATACTCAAGTTCAGACTTTGTAATCTGAGGATGTCGATCTGGTGCCTTGACGT[T/C]GCAGAGAGCCACACGAGCAACCAAGGAACCCCGATAGTCCAAAATTAACAATGGCCATATATACCTCCTTGAGACATAAGAATAGGAGACAACATGA	T/C
3	PERL_612997_Ler	GGGATGGGAACCCGCCTAAAAAGCGAGTTTCGAGTGTATCCCTCGCTGTGCCTTCAGGAGAATGCTTTGGCATGTTAGGGCCCAATGGTGCCTGGCAAGAC[C/T]TCTTTTATCAATATGGTCAGTACACAAATCTACCCCTAAAAATAAATAGTTGTGCTTACTGATGACTGAAAAACTCCCTGGATAATAAAAGTTGCA	C/T
3	PERL_615911_Ler	GTTTTACCGATAGCTTGTATCAATTTCCAAATTCGAATCTCGAGTCCGAGCTATAGAAAAGTTTATATAGACTGTAACCGAGGAATTTGAATCGT[T/A]ATCGAACAAATCCCTTGTTCGGTTCTTGAAGATCGATCACTACCGATTCCGATCTGGGCGATTAGATTTGATGACAAAAATACGGTGTGTGTCTTCT	T/A
3	PERL_618967_Ler	TGCTTCTCTGTTTCTCCGTCGAGTCTCCCGGAGATTTATAGAATCCAATCGCCTCAAATCGAATCGCTAATCTAGTTGAATCAAGATGGTTTATATCGC[A/T]TCGTGGGACGAATTCGTTGATCGATCTGTTCAAGCTTTTTCGAGCTGATCCGGAATCTGTAGGTTAACTATTTTTTGTCTCCTCTTTTCGATTTACATAT	A/T
3	PERL_624470_Ler	TTTTTCCACACCGATAGGTGATGTTGCATCAGATAATCTCATTCTTGAAGTTACAGATAATCTCATTCTTGAAGTTACTTATCAATTTGGAGCATGCCAT[C/T]GCTACTGATGCCTTTAAATACAGAGTCCACTCTGATGTTTGTGTAATGGAACCCAAATGGGCTGGCAAAGTTGTTCAAGGCTACCGTCTCTC	C/T
3	PERL_626784_Ler	AGACGAGGTACGTAGCTAGTCTAAGAAGATGTGATGATCAAGCCTTCGTTCTTGGAAATTTGGGAGAAAGATGGAGGCAGTGAATGAAATGAAGGTGCTG[T/C]JACAAGAGGATTTCCGGTCTCCTTGGTGGAGACCCTACGTACCACATTGACTCTATGGTCCACCTTCTATCGGCTGCACCTACGACCACGATGAACATT	T/C
3	PERL_628544_Ler	TACTAGAAACCCTAAATAGCTAAACCACGCAATTCCTGAGGAAGATTCATGTAACGAGAGATACGCATCGAGAGGAGAGAAAAATCGCAGGACGAAA[G/A]JCATACTTGGGTCCCTTCGTCCTCGTGAGCCAGAGGATCGACGCCGAGGATGACTTTGGCGTCAGGACGGTACGGATCGTCAGGACGGTACCGGATCGTCAAG	G/A
3	PERL_630835_Ler	AATTTGATTGTTTTTGTGGTACAGCTATGGCGGATACGGTAGAGAAAGTTCCACCCTTGTGGAGTCACTTTCATCATCCACCCTTGAAGCATTA[A/C]TAGCGCCGAGAAGACTGAGCCCACGACGGAGAAAGAAAGTGGGGCGATGTTGAAGATGATGATGATGAAGAAGAAGCTGTATCGGAGCTTAATTCATTG	A/C
3	PERL_633276_Ler	GAAAAACAAAACCTGTTGCTTCGAGAGCACAGTCCAGGTAATTTCCCTTATTAAGCACCAGAATTTGATGCCTCTTAGTGTGTTGATCATTGGGACTTGC[A/G]JACGAACATATGATTGTAGCTTGTATTGTCACTGAACTGTATTGGCGATGTAACCTTAGATTTGCTCATTTCGTATAGTCTTTTTCGACAGAGTTTTAAACAC	A/G
3	CER476104	AACTGGCAGACACGTTAATCTTCAGTTTCTCAAACCCATTTCCAGTTTCAAGAGATGATCTTGAAGTTAACTGCTGCTCCGTAAGAAAAACGAAAACT[C/T]TCGGTGGCGTTAAAGTCTTGAGAACCATATTATTAGCCATGGATGAAGCATCACACCATTACTGATGACAAGAGTTAGTAGCAAGGTTGATCCTCTC	C/T
3	PERL_637620_Ler	ATTTGGGATCATTGACACATTTGATTTCGAAGCATGCGCCGAGCTTTGACCCTGTTAAACAACGATGTGCTCAGCGCCGCGCTGTTTGTCCGTATCC[T/C]JTGCTATACAGATTCGGTATCCACACGCGCCACCTAAAATAACAACAACAAAAACAAAAGTAAATTAAGGAACAAGAAACAGAGCACTCTGTTTTAGA	T/C
3	CER476418	CTCAGATGAATCATCCCAAGATTCGAGCGCCGGGTAACAATGGAAGCTCCTCGCTCCGTCGGAGGAAGAATACAGAGGAAACCGCTCGCGGATTGTAC[T/C]JACACCCGTCCTCAGATCTTCTCAACAGTCACTTCTTCTGTAATAATCGCGAATCCGAGTCTCACTTCTTCACTAAAGAGATTAGTAGAACAAACTACGC	T/C
3	PERL_642202_Ler	TTTCCGCTCCTCTGAATTCATCTCAGGGACATAAGGTAGGGATGCAAAAAGCCGGGAGTGTACATACATCTTAGCCTTTGCAGACAATATCCGCCAATTT[C/T]JCAATATTCCAAGAGTTGTTCCAGGAAGTGGAGCTTCCGTGAGCCTCGTGACCTTTGCACCATCTTCTTGGATAAGGCATTAATCAAAGTAGATTTCCC	T/C
3	PERL_644299_Ler	TGCAGAGGTTGTAGATTAGATATGAGCGAGGTAGCTGCTTGGCCAAATAAGCCTTTCTTAGATTAGCGTTGAGATGCATTGGATGCAAGTTGGGAGAC[C/T]JCGTTGAGTAGCATGATTCAAGTGACGAAAGAGCTCAGGCTGATTGAGAAAATCTGCATATTATCCATAACAACACAGATCACAGATGAGCTCCATATGACA	C/T
3	PERL_646360_Ler	TGAGTGTGTTTTGAGTAGATTAATGTTTTATTTCTATCGTAGTTCTTATTACATTTTTGAGCCATTTTCATATCTTACTACTTCTGAAACAT[T/C]JGAACGTGTGAATGTGGGTTGATGGTTTTGTGGAGGAAACATACTACTGTTCCACCTTTTAAAGTTTTTAAAGGTTTTCTTTCTAAACAAGACTATTAT	T/C
3	PERL_648257_Ler	AGTATGCAATAGAGAAAGTCTCGAAAGTGTGGAAGGTTGAAGATAAAGAGAATACAGAGAGGTAACGGAAAAATAACGACTGCTTTTTCTCAAATGA[T/C]JGACGTTACAATCATCTCCATTACGACGTTTTACTCTTTTTTCAGTAACTTTTCTGTAGTTTGTGGCATCACATAGCAATGAACATTTTATGAAATCT	T/C
3	CER477934	TAGATTGACTAGTTTTGATAATCAATCTTCAGATGATAATACTTAGCCAGAAGTGTAAATTTGGATATTTCCAAATGAAAAGTGTGAGGCTTTAAAG[A/G]JGGCAAGCGTGACCAGAATCCATCACACCATGTGGCCATCTAAAGATAAGATCAACTAACGCATTCACTCCAGCTGAGCAATCGCTCTCTAAT	A/G
3	CER482305	TTTGTACACTGGTTTTAGGAGTATTGGACCTGCCATGTTTGAAGGAGAGGCTTGGTCTTAGGCTATGATGAAACCAGAACAATCCGTGTTCCAAA[T/G]JCCACACAAAGCAAGTTAATCTTCTTTCTTTCTTTGGCGTATATACATTATTTTTGTTGATCTCTAATCATAGATTCTGTTAAAAAGTGTTA	T/G
3	CER478092	TGTTTCTTTACTTTCTTTGTTCTTATTTTATTCTTTGCTTTAAATTCACACTAATTTCTCTTTCGTTTAGTTACCCTGTATCTGTGTATAGCCTTA[G/C]JCCATTATCATACTAAAACCTGCGCTGGGCGTAATTTAGCAGCAAGAGGATTAGGCATCTCACACGAGAGCCTCAGTTTCTCGGACAAGTCAACGGCTCT	G/C
3	PERL_656311_Ler	GATGGGTTACAGGGTACACCACTTGAAGAAAGTTGAGAATGGATCTTGTGGAGCTGCTTTCACATTTGAATTTACATCTTCTGTCTCTCAC[T/A]JAGGCAAAGTAGGCGATCCGGTCTGGTTCGAGTTCCATTTTTGATACTCATGAATGCAACTTTAGCAGCGCTCATTTCAGCCAACTTTTGGTTTTCGCC	T/A
3	*PERL_657590_Ler	TTCTGCATTCTGGAATTTGGGGCAATCATTTGTGCTCTTGTGACCAATTTGACAGATTGGTGACCTTAAGGGGTTTTTCGGATTGCTAATGGTCAAT[G/A]JTCCAACAGCTGAGAACGAAGCTCAAATATTGGACAACACTTATGAAATGGAAGTGGTAACTACTTCTACTTTTTCTATTCTCTCTGTTCTAC	G/A

4	131	CTGAATGTTTTCCGGATCTGCTGAGTCATAAATACGAGTGCTTTAGGCAGGCAAATAAGACTCCAGCATCAATTTGGCTGGGGAAGGTGTTAAAATCTC[T/A]ACG ATCAGGTACGTGATTTCCATTCCCTTCTCTGCCTTGTCTTTAAACATCTCCGTGTACACTTTCCCTGCTCCTTGAGGCC	T/A
4	130n	GTGCTTTCAAAGAAGGCGTTAGACTATATATATATGTTTTCTTCAGTGTAGGGTGTGCAATGAGCTAGGATCCGAGCTGCGAAATACTC[C/G]G TGATCGTAACGGTGATAGAGTCTCTCGTATTGGAGTAGTGTGTGCAATTTGTAATTTCTGATAACACGAGATGACTTTTGTGTGATTTTTACGGAGAGT	C/G
4	128ac	CAATGAAACAGCAGAGATAATCAAATTCATACAAAAACATAAGCATTTACTAGAATATCTAAAACATAAGATCTCAAAAGCTTAAATTTGACTTGTAACA[T/A]ACTAT AAACGACATCAATCCGTAATTTCTGGATGAGAATGAGAGAAAAATTTCAACAATCAGAAATATAAAATCAATCTGATCTTGAACGAGAGACATT	T/A
4	128	TAAAAATCTAACTGTATTAACCTTTATATTTAACTATATAAACCTCTTGAATATATTATATCATGTGCATGTTATGGACTAAACTTTTTATTATTGTTG[T/C]AGCGTTAT TGGATCTGTGGTGGTGTGATCGGTTTATATATATTTCTATGGAGTAGGAGTAAGCAATAGTAGAGTGAAGATCATGAAGTTGCCTACC	T/C
4	127	CCAGTCCGTGGTTCGTAACACTGACAATCAATGTACTTCTCAATATGGATGCTAGATACTTGTCTTACAAAAGCTTACACATTTAGTTACATCCCAAAAG[C/G]CTATG CTTCCATCTGTGGCCCACTGATGAGCAGATAAACATCACTATATGNTGTATTACCTGTCAGGTAAGTTATCAAAACTATTACGACAAGAAGA	C/G
4	126ter	GAGCTCATTTTTAACATTTGTTTCGTACCAATCTGGGATTTGTAATTAGCTGAGTATTGAGCTCTAAATCTTGAAAAATTAGTGAGTTTAGTATTTTGC[G/A]AAAGAC CCATTAACAGATTAGATTTGTGCGTTGTTCTTGCCAAACTTTTGAGAGGTTTATGAAACAGAGTAAACCCCTAGAATTCAATTCCTTTG	G/A
4	125	GTCTNTTCTTACAAGAAGTGGATTAATGTTGAGACTGAAATGGCTTGAATCTGGATGAACCTTTACCAGCAGAGATAGTCTAAGACTCTAAGAGGGT[C/A/T]GTAA AACTTCTCTTCCCTTTTTCCATTTCAAAAAACAGGAANCGAGGCTAAGAGGAAGATCACTTAGCAGGAGAGTAGTTAGATTTACATCCTTTAAGG	A/T
4	123	GGTTTAGTGGTAAAGGATATGTTTGTCTTAGTGCCTTTTCTTATGAGGATTAGGAGAATTTTTGGTTAATTCGTATTTGACATCAACGTATATTGAGTATGGA C[A/G]TACTGTATATAGGTTCCACCCGTCTCTTCTTATACTCGCAAGCATTAGCACACAGTTTTGAGTTCATCGCTACTAGTACAGTTTCATAATGATATTAT	A/G
4	103	CAAAACCATCAATCATCGCGTACGAGCACGAAAGCAGCTAAAACCCGAAAACCTAAAGCTATTTTACCTCAAGCAAAAGCCAATGAAATTCACACTATAT[G/A]TCAC CAATCAGAGCCTATAATTTCCATTACTACTTAGAATGTCACAACAAAAAAGAAATCAAGTAAAACCTTATCAAACCTCTAGCTAATCATTCT	G/A
4	102	CCCCAAAAGAATCCTTAAACCGTCGCAATCGTTACTTTGCGACTAATGTGAGACGATACATGTTAGTCGCTATAAAACGGTCGCTAATTAACCGGTC[A/G]CTA TTGCGTCGTCATTTGTGACGCCTTTGAGACATATATTCGGTTCGATATAAGCGACAGTTTTGCGACAGTGGTTAATTGTCGTATATTTACGAC	A/G
4	101	GGCAAAAGACTCACCGAGACATCTCGAATGACGCCACTTTCGCTGTTGTGTACGGTAACCAAAATATCAGGCATGAACCGCACTTCAACATCCTCATCT[G/A]TGG CAAATACGAAAAGCTAAGAAAATAGCCATAGATGTGAAACATCTTGCATGAAACGTTGACGAACATAAAGGAGATGCATGGAATCAACAATAC	G/A
4	99	TCAAGTAGGATTGATTACGGAACGGGACACGAAACATTTCCGCGCGTGGTTGATTGTTTAGCTAGGATGGGGATAGTGAAGAAGAGGATTATCAT[A/G]GTT TGGTTGCTAGGGTTTTGTTAAGTATTTGGAGTTGATGAGGAAATGCAAAATGGTTTTATTGTTTGAACCAGCTGGATCTCATGGAGTTTGGGGAC	A/G
4	98	GGAGTTCAAAACATAGNAGGGATGATAAGCTNTGGAACGACTCCCATGCCTTACCATNTACTCTGCTACACCTAATCTTGGACTCGCATCCACGCTT[T/C]GAG TTCATCTCGCAATCACAAAATATTTTGTCAAGGATCTGGNTNCTACATATTTAGTATTGTTNTCGTTCCTCGCTTTCGAGTTANACCAAGCTAACC	T/C
4	94	TCGTATAAGATAAGTTTGGCTAGACCGGCTTTGAAGTTCAATGAAGAGGCTGTTCTTGTCTTATACTCAGGTGAGTCACCATCTCATCACATGATTC[T/C]CACT GCAATTCCTCTCGCTTTCGTTTAAACGCTGATATTTATGTTCCAGGAGATGTGAAATCTGCAACCGGCTTCAAACATACTTGTATCAAGG	T/C
4	91	CAAGACTCAGATGCAATCTGTGGTTAAGAAGATGAAGCATTCCCCTGCATCAGCTTATAAAAGATTGACCGAGCAGAACATCATGAGTTGTCAGAGAGC[T/A]TAC GTTACACCCTCAAAGATCTATCTGTTGGGTCCAGAGCTTGAGACTGCAAAATATGTTGTGAAGAATTTGCAGAGCATGTCTCGGATTTTCATGAGA	T/A
4	88	CTTGTTGTTTAGTAACGAAACGCTGGATTCCACGGAGTTCCACGGTATGGTGAGTTTTACCGCCACGACAAGTCCGGAGACAGACAGGTGATGCCGTT[G/A]CC GGATGAAGATGTGTTAGGTTTGAACGTGAAAATGCCGGTAAATGCTTCATTTAAATCCAAGAGATTCCTTCCACCAACGAGTCTTTGTGATGGAAA	G/A
4	86	TATCTAAACTAGCCAGAATATTGTGCAAGCAACAGTAACATATCTCAAAAATAGTTAAAAATCAACAACAGAGGAGCTCAAGAATTAAGCAGTTTCCCTTTC[A/T]AAT CCTTTCGACATAGAATCTAATGAAGCCTCAAACCAAAAGAACATCAACATAACCAAACTGTAAGCTATAAAACCACTTAAATGGACTATAAGTAAA	A/T
4	85	AAAAAAGTTATAATAAGGTAATGGATCGTCCCAAGATCATTATTGGATAATTAATACTGAGGCAAGTAAAGCCCAAAACAGCCCATGATA[A/G]CTCA AACTAGATCAACCAGTAATGGCCATGATGCTGATCTTGAGGTGACGTGGCAAAATCTGAATTCGCGCACCGGTAGATTCTTTTCTTTTTCCGT	A/G
4	83	CTCTTGAGATCCAAAGTTGTACATGGTAACAGTACTTCCCTCAAACTACTAAGGACCGCATACCTTTCGCTGTTCTTCCAGCAAAACAATCTTATACCATA[G/A]TCAC ATGTAGGAGAAGGGAGTCTCAAAGTACTTACTTAGCTAATTTGGCTGGACGAAATTCGAGGCAAGAGTGTAGCTAATGCGCCACCAAGCTA	G/T
4	80	TCTCCAACAAAGTTTGGTAGCTCAGATGTGGGATATGAACGTGGAAACATGCTAAGACCAAGTACTGATGGTTTTCGAATTAGTGTCTCAAGCACACCAAG[T/C]T GTTCAACTGGAACCTCTGGTCCGTGATGACATAGAATCCTTAGGAGATGTTTATGTCTGGGAGAAGTTGGAGCGACGGGATATCACCAGACGGGGTC	T/C
4	78	TGCTAAGAACTATCTGGATACAAAAGATGGCACTGAAACATATTTTCACTAGTAAATATGAGAAGGAACTAATAACTGGAACCTCATAGCAGAAGCAGAAG[T/A]TCCT TTGTTTCAATCCTATTCTGTGGAGAGTGGAAATGGCAATGGAAGTATGAAGAGCCTGAACCTTGAATAAAATCATAAGTTTGTGCTTTGGCCA	T/A
4	75	TTATATCCTAATTAGAATGATATTGCCACACTCTCTCCCTCAAACTACTAAGGACCGCATACCTTTCGCTGTTCTTCCAGCAAAACAATCTTATACCATA[G/A]TCAC CAAGAACTCGCCGCTTAACTTTGAATAAAGGGGAAGTAGACTTCGACACAAGCTATCAACACTATTAATTATGATGTACATTGAGTGCTC	G/A
4	66	GTGGCTCAGGAAGTGAATAAGTGTGAAGGATCTCCTGGTTCGTAGAGAGAGGAGCCAAACCCGCTAAAAGAGTTTTCTTGTATTATTACTACCTTAAACA[C/T]AAT CACACATGCGTAAGATGATAAGACTAAAAGAAGGAAAAAAGAAAAACTATAGTAGCANCTTAATTAATTAATGCATAAAATAGGACCAAAAGGAA	C/T
4	64	TGAGAGCCATCCAGAGTCAGGATGTTACTTGTACAGTATGGCTTCGAGCCAATCGCGGAGTCAAGGAGCCTTATTGAATTTCCATGGAAGAA[G/T]G GAAGCTTGAAGGTGAGTTTGAAGAGAGGTTCTTGAGCCATGGGATTAAGTGTAGTATGATCATCAACCAATGGGTTTGTAGGACTCGGGAATGATGAAGAC	G/T
4	62	GCTCTTAACCAGATCAGATTTNTGGTTATACTATATCACGTANTTCTGCGGTGGAACCATGGACTTGTGTACAGCAACAACCTTGGACAGATTGCTCA[A/G]TCTT TAGGACAAAAGCTCAAATACCACAACCTTGTACACTTTATTCNNCTTCTCATTCTTTGGAAGATTGCTNTCTGCAACACCNAGATTATATCCGAG	A/G

4	57	AGAAAGGTTGATTGTACCTCGTTGGGTCTCAACAGAAACCATCCGAGCAACCGAAGGTTGATTTACCTTGCCCGTTTGGCAGGACTACTTCCACCAA[T/C]TGG TATGTTTTCTAAAGCCCCACCATGAGTCCAGTATCTACGACAGTCTTGCGAAGATATCGTGGCTGAAACTCACAGTACTGTTGTAATAACAAAATT	T/C
4	55	GACTGGTACTCAAGAAAAGACGGGAGCCAAAAGGGTAAGCAGTCTGTTGTACATGCTCAGAGACTTTGTTGTTTGTATGACAAGTGGGCTAACGT[A/G]TGC AATTGTGTCAAATGAGCAGGTTGATTTGCTGAGAGGGCAGAAAGACAGACAGATGGATGTCTCAGCTTACAGCCAGAAGAGCTGGATGCTATGGAAA	A/G
4	53	AAAGGACCAGCGAAACGAACAGAGTCTGGACGGTGAAGTTATCTGAATCAATGGTTTGGAGAGATCTCATCGACTTTTATTAACGGTACGATTCCTCGTGA[T/A]A GCAACGGGAACAAAATTCACGAACGATGTGTAGCTGCAAAAGAGGTTAACCAAAATCAAAGCAGCACGAGATCTACCATTTGAATCCAGAATCCTACG	T/A
4	48	TGACAGTGCACCTTTTGTATGATGAGGCTTGAATGCACATGGACTCTATTGTGTACCGTTATATGATACACTAGGTATGCCTTTTTAGTATTTCCCAATATAC[T/A]CTA GAAGGATAAATTCGCCAATAGATTTCCAGTGAGCTCTACAAAATCTTAGCTAGCTTATTGTGCTATTTTGTGCGTGAATTTATAGGTGCTGATGCTGT	T/A
4	41	TTCTATTTTTCTTGGTCTTCTTCTTCTTCTTCTCGATAAGCGGGTGGTCTCCTTCGCTGTTTTCCTTTTGATTATCGGCTTCTGCAGGTTCTTCCAGGCTG[G/C]JACAGA GTGTTCTGCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTGATACTCCTGTGAAAAACACAACAAAATGTCAATCATAATTCATAAGAAG	G/C
4	40	CAAAACTTCTCTCCAAAATCATTTGATTTTGAATGAAAATCCTTTTCTTCAAGCCAGTAGCATTCTCAGGACATATTTACCACCTCTTTATCTCCTTG[T/C]CTCC CTTTATACCCACTCCACGTGAAAGCTTGAAGACTGGACAACAACACCGCGGGAACGAGAACTCGGCCGTTTCCAGCAGGCGCGGGTCTCTAAACTA	T/C
4	37	TGGAAGAAAATCNAAGTAAGTTTTAAGTAGTGTTCCTCTTGGTCTGTGAGTTAGTTACTGTTTTCTGTGAAGTTGATTGATCCTGATAAAGGT[G/A]AATTG AATGGAATAGGGTTGGTCTTCAGCGTGTCTGGAGAACCGTAAAGCGGCTTTGTGCAAAAGACAGCGATGGCTTATGCTCGAGCTTTGGTTGT	G/A
4	35	TGTTAGGAAGTATCACATTTGTAGGATCGGACACGTGCCATCATGTGACTTTGCGTTATGTTTCTAATCTAACAAAAAGCCTAGCATATAGAGACCAT[G/A]ATTA GTAGAGACGAACCACGTGAGGGCTCCCTAGATTTTGTGCTGAGTCTTTGCTTTTTCTTTTTGAAAATCCATTTTACCGCATGAAGCCTAAA	G/A
4	31	TGGTATCATATGTTACACATTTTCACTCAAACTGTTTATGAATCTTATGATAGACTCAATATTTCAACAGATTTTGGTGGTAGTACAATGGCTA[T/A]TGATGA TTCGACATATGTAATAGGTTATAGTGAGAGTCTGTGGTTTTAACTTGTGCATTTGAACGTTTTAAGTGGCAAATTTATAGATGTCGGAG	T/A
4	29	AGGAATGCACAACAAGCTCATAGAATCTCAAATATATTCTATTTATTTATCTACACTTCTCTCTTCTTTTTATGTGAAAATGTGAATGCTCTGTTT[A/C]TAGCTTG TCTATTATGTCGAGAATTTCTTTTTCTGTTTTGATTCTTTTCGTTGTATATCTTTGTTCCAATAAAGGAAATGATGTGCTTTACTCTTAT	A/C
4	25	TTTCTCTTCTCCCCAGCTTAATCTTTCTCAGGTTTTAGTATTAAGTTATAGGATTAAGAATGCAACTACAGATTATAGATTGCTCAGAATCATATAC[T/C]CTTTTTA GCCTTTAATGCTGATTCAAGTCTAGCTACTGATTTGAAACCTTGCTTGGCTGATTTCTTCTGATAACTTTGCGTTATACTTATCTTT	T/C
4	19	TGAGTCACAACAACGCGAGTGAGACAGTCACTGCTGGTTGATTCGTTTACGGGTTTAAAGGTAAGTGAAGTTGTTGTGGGTAGAGAAAAGGAGTT[G/C]AA GAGAGCAATAATATTGGATCTGGGAGGTCAAGTTTATTGAAGAGATCTATCTTACAGTGGAAAGTAGTACTAGCTAGCTTCACTGCTAATAATA	G/C
4	17	TGATTCAAGACACCAAACCGCAATGTGAGAGACTTTAAGACTAAAAATCATGGATAAGACTAAAAAACATGGATAAGTATCAACTGTTCTCACGATT[A/G]TTTTAT TCATACCCTGACTTAACTTAAACCCACTATACTAAATAGAAAGGTAATCATCAAAAATCAGTATGTAAAAACCCTTTTGTGAATAAAA	A/G
4	15	CATCGTTGCGGTTGTTGTTGCTGTGTACCTTCAGTCTACGACATCATCGGAATCAAAACAGGAGCTTTCTCAATCGCATTGCTTCCATACTTCTCAT[A/G]CTCT TAGCCTCCTGTGCGCTGACCTTTCCACGCTTTTATCCGTAGCAAAGTTCTATGATGAGCAAGACGTAGAAGGACGAATAGATGAACCTTTACTA	A/G
4	14	TCGTCCATTGTACCATGATTTGAATGCTTATAGGTTCTCTTTGATGAGGTATTATTATTTCTTCTCAAGAGTTATTTATTTGCTGTTTAAAGAGATGC[C/A]CTGTCT CGTTGCGGTGCCTAACAAAGTATATTGGAATGAATATGGTAGGATGGTGATCCTCGTCTCTCATGTTTTGGCTTGATGAAGAACAGTAGGGATG	C/A
4	9	AAGCTCATGCCTCCATACATTGACCAAATGCGCGCATAGGACCTCCATAGCCACCAAATATTCAGGACGAGAAGAATAACATGGAACCTTGCGCCA[G/A]CG CTAGGTCCAGCTTCATCAAGAGGCGTTGCTGAATCTATTGCTACCTAAACCCGAAAATCAAACAGTGTAGCTTCTTTATACATCTTAGATAAGTTT	G/A
4	7	GTGTTATTGTGAGTGGTGTGTGCTTGCAAAATGTGCCAAGAACTCGATGATTATGATCTGAAAAGAAAACCGTTGCACCGATCACAAACCAAAGAGCTA[A/G]TT GTCCAGTATTCCTTTGAAAACATCGATCTCTCCATCTCTCGCGAGCTTATCTCGTTAAACACCTGGAGTTTTCAGAACCAAAGTCATGTCAAGAATC	A/G
4	PERL_848945_Ler	GCAGTGTGGAGAAAATAAACGTGTTATAGGTAAAGCAACCTCTGATGCTGACCTTCTTCAAGTACTTTTTTACATTCCTCTTGTACGAATCTTTGTG [G/A] GACAACAATCTTTGTTGAAACTTTTTCCATCCCATTTTGTGCTAGCGCTCTTGATCAAGCAAAGCCATGGGCCATGCACCTCTCTTGCAAAAGACG	G/A
4	2	CATTGTTTCTGATATTAAGTGGAACTTTTCAAGGTTTCACTAGGCTTATAGCTTCTTTAACTAAAGTCTTGCAGGAAAGTTGGAGATCA[A/C]ACTTT ATTGTTGATTGACCTCAGGATAGCTGTCTGCTTGAACATCATCAAGATACAGAAGTCTCTTTGAAAGTTTGGCAACGTTGCTTTTCTTGGCTATATTTAT	A/C
5	*PERL_853156_Ler	TACGAAAAATTCATGATCAACCCCTCAGAAATACACTATCTGGATGAATATTTGATAGAGTACGAGATTATATATACTATGCGAAAAGTAAAGTTTAACCA[G/C]AGTTT GGAAATTAATGAGCAGACTCACAGTCTTTCCCCTGAAGCATTATGTACTCCACGCTAAATCCGATATCCTGGTAAAAGACAACAGAAATATA	G/C
5	PERL_855702_Ler	AAGAGAAGAATGGAGCAGCCGTACGTGTACGCATACCCGCAAGGTAGTGGCCCTCGGGAGCTCCGACTCCACAAGCCGGAGGAGTGGTAGTGGATCCAA[A/G] JGTAAGTGGCTCCTTACCCTATAGATATGGCATCGTACGGAAGATGATGTCGTTAACGGACGGCAATTTCTGATAACGGACGTCAACGGAACCTGCTG	A/G
5	PERL_858841_Ler	CTGAAGCCTGAATTGGTTAGTGGTTACATTACCCGTCATATGCCTGAAATATCCGATACCCACACTTACTCGCTCACTCATGTGCATAATTGCTC[T/C]ATC TCCATGCATCTGTGTCTCCTCACTTGTGTTACGGGTGGCTTTTGATATAATAATATTAGTATAATCTCGACTAATATTGTTATAACTCGATATC	T/C
5	PERL_862557_Ler	GTAGCGCATCAATAATAAATTTGGAGCATAAAAAATGATAATAAATGACTATTGTTGATCTTGGAGTCCAAACAAACTGGATATCTTCAACCGATGT[C/T]GCCA GGCTTTTGTCTCCCGAATCCAAAATTAAGACTTCCCCTTGACCAACTGAATGACTTGTTTAAATACACTTCAAAGATAGCTTTGGATCCATTT	C/T
5	PERL_864956_Ler	CTCTTTTCCAAATCCAAAGATCTTTTTAACCCATCTTTTTAATCACTCTTCTAGCCCTTACCTTAGACCCAAAATAATAGACTGGATTGGAATTTGTTGATGATTTGA[T/C]CCGAG GCTTCCCATACAGTTTCAAGCAACGCATGATCTCTGATCCCTCATTGCTGAGGCTTTGCAACAAGAGGAGACTATCATCAGCAAAAAGAAAGATG	T/C
5	PERL_866977_Ler	TCGTTCAATTATATAAGATCATGAACGGTATGTTATATGAGCCTCCTGGAATTAGGTTATCATAACCTTCCCAGAACCATGACAGTCCATATTGCGGCT[A/G]CGA AGTATACAAGATGTGGACAAGCCTCAAAGGATCTTATCTCTCCTACTTCTTCTATTTCGGACCTCAAAAACCTAATTCATATAATTTCTAATAT	A/G

5	PERL_869153_Ler	AAGGAAAAGAGTAGGATATTTAGGTTATTTACTATGGACACTCTATTTTGAATTCTGGTTATCAAGTTTATAAGATTGTTTTGAGCCTTTGTGTCTTAGA[A/T]TCGGAAGCAGAGGACTCTGTTCTGAGTTCGCCGCCGCTTCAAAAGAGAGATCTTTCAAAGTTTTCCGGGGAGTTCGGAGAGAAACTCGATCCGTTCTTAC	A/T
5	CER482823	ATCTGCTTATGTAGAGTCTCAATCATTTAGGTCTAGTCTAAATCTTGACACTTTTGGAAATGTTTTGCAGTGGTGGGCAACTGGAAGCTCAGGAGGAGCATG[C/T]GATAGCGAAACAGAACCAGTCAAGAAGCATACATCACTAACCCCGTACCCGCTAAAATGAAAGTGCTTGAGAAAGTGTAAAGAGGTATGAAACACCTG	C/T
5	CER477094	TAGTTTCTCTTGGCTCCGGTGTGTAGAAATATATACTGATCGGTATTGTGCTCCCAAAAGTTCTCCCTGCAACAGTTTAAAGATCGGTTAGGAATTGAAC[G/T]TTGTC AAGATCACATTCACTATGAAAGCTATAATTGAGGACAATGACAAGCACCATCAAATTTCAATTTCAAGATAAGAACACAAATTCAGTTTAAACCATT	G/T
5	PERL_875329_Ler	TACAGGATCCAATTAATGAACGGCTCTCGTTCGTCCTCAAGCTTCAAATCTGTATTTTAAAATATCAACGGCCAGGATTTCATAAATCCCTCGGTGGCGCG[C/T]JAGA GACAGTCAGTGGCCATTTCCGGCGACGGAAGTAGGCTCCGCCGGCTGCTGCTGCTGATACAATGAATGTTTCCAGCAAGAACGATCTCTCTTG	C/T
5	PERL_877303_Ler	GGAGAAGAAGAAATGAAATTGAACAAGTTGGAATGGAAGAAGACAAACTACTTTGAGAAGAAAATAATGCAACGAGTAGTTGTGTTTTGTGTACTAGTCCCTG[A/C]JAT TACGGGTTCCAGCTTTTAGCACAATGTTTCTGTTTTGCTTTGATGCACACCTTGGCATTACAGAAAAAGAATAAATGAAGCTAGAGGAATAAACCAA	A/C
5	CER482707	ATGTGTCATAACATAAGAAGTTATTAACAGCGTAACGTATATGAACCTTATCCCACATCATATAATAAATAACGTCATACTCATATCCCAACTTTAT[C/A]JACGCT ATTCTCAAACAGCAAAAGAACCTTAACCAAAAAGAAAACGCTACGGAGACATATGGAGGAAACATCACTTCTGTTAGTTTACAACGCTTAT	C/A
5	PERL_881677_Ler	GTTCCGTTTTGATTTTTCGATTACGGTCTGATGTAGATTAATAAAAATATAAAAAGTTCCAGAAGCATGCAGAAAAGATTGAAGAACCAGGATAC[C/T]GAG ATTTACAGAGGATCAAATCAAAGCAAAAAGAGAAAAGAGAGAAGTAGAAGAATCATCATCTTTAAAGCCAAAATATCAATAAATTAGATTAGAG	C/T
5	PERL_884176_Ler	AAAATAATAAAAAAAAATAGTTTCCACAGTTTATAAATAAATAAGAAAAATAGTAGTAGAGCTTAACCTGCGCCGACATCTTCGAAAAGGTAGATTCCG[G/A]JTTAA AATGCGCACTACTCTTCTTCGTCAGCTTCCCTCACTTACTTGGTAAGAATAGCTTTGACTATTACACGAAGCTACTATTTAGTTTTTAAATGTCC	G/A
5	PERL_886324_Ler	GAGACCACCACATCATTAGCATTACAATTCTGTAGTTGGACCTCTCAAGAAACCGTCTAGCAGAGGGAAAAGAACATTACACCCGCGAGCATGTTAGG[T/C]GA CAAATAGGAAACGACTGCTATTATAAATAGAGAAGGTGAGTGCATAGCACTCCCAACCAACTTTGATAGTTCTGGCAAATGCTGGAGATCTTTCC	T/C
5	CER440051	ATGCCTCTTCTCTTGTGAACAAGTACCTGAATACGATTTTATGACCGAATCTAACTATCACAATGAAAATGCCAATGCGTTGTGACGCGGACAGTCC[T/C]ATT TACGGAAGGCGGTGAGATGACATTTATGGTTTCTAGCCAAGAGAGAGCAGGTCAAAGCAATGATCAAATCAGGCGGAGGATGATAGAAGCGAGACC	C/T
5	CER477932	ACTCTTTAACTTGATAACAGCAAATTCGCTCTTATTAGTAGTATACTAATGTTTTGCTATTGCTTTTGCCTTTGGCCAAATGGGCCAGCAGTTCAAATGCG[G/A]JCATC AACAAACGGGACGTAGACTACCATAACCCTTTACCTTCTTCACTTTCGTTCTACAAGGAGTCCCGGAGAAAATATCTTCTTCTCGGAAGATG	A/G
5	PERL_891788_Ler	CTCACTCTTTCGCTGAAGTTTCAAGCTTTTATTTGAATTCGTTATCTGGATTCTGTTTTGATTTGATGTTGATGAGATTTCCGCGCCTAACAGGATTG[T/G]AACAG CTCGACGCACATTTTATGAGGCTGTGGCTTTTACCAGGAGAGCTTAAACGGAAGAGTCTCCCAAGGATACTGTGAAAGGATTGTTAAACAACCAAT	T/G
5	PERL_894000_Ler	GCAATGGAGTACTAATCTCAATCGAAAACCTTAAAGAAGGGCAGCCATACTCATATACCGTGGCAAGAAGTACAACGTCCTTATCGAAAAGTATGAGG[C/A]JCA GAATCTTTTACGAAAAGAAAAGCATTGCAACGATCTGTTGTGATGCACGACTCGGCGTAAGTGAATGAATGAAAACGATCTATCTCTTTTCAATTT	A/G
5	CER483050	TGTTTTATTTCCGCGATCGATGAAGATCTCAGATTTTGTTCAGACGAGATGCGTCTACGAATATGTGAGCGAGACTTTTTCTTCCACAAAACCTTAT[C/T]GGG CTAAGATCAGCTTTAGTGGGCTTAAAGGATCTTTTATGGGCCCAATATATGCAATTTCTCATTTTTTGTATAAAAATTTCTGAAGAGGTAGTGACAC	C/T
5	PERL_899013_Ler	GGTATTTAATGTGTTTTAAAGTTTTGACTATGAAATTTATGCTGATGTCAGTTGGTGGCACATGGTTTTAACTTCTAATATACAAGTTTTGGTTGATAA[G/T]TGGA CTCATATAGGCGTCCATTAGATGGCTCATTAAACAATAGACTTGATCTTACAATCGGACTCAAACATGTAGTCAGTCGACATCGACTACAGTGGCT	G/T
5	PERL_902420_Ler	AAAAGTTTCTTCCGACACTCCCATTTGATCGGAGGGCTTCGACATTGGTGGGCTCTGTTTCGCCGCTCCGGCTAAAAGTTAGTGAAAGCAAAAATGGA[G/A]JG GGTACGGTGGCGCCGGAGAAGATGAGTACGGTCCGATCCATCATGAATGGTCCGCTCAAGGAACCGAACTGGTATCGAAGGTAACGTTGATTATG	A/G
5	PERL_905180_Ler	AATGGCTGATCTCGATGTTCTCCTCCTCAAGTTCCCTCAAAGTAAAACACTAGAGACTTTGACAAGCTTCTTCCGTCATGGGAATCTCGTTGACCCCGGCTT[C/G/T]TAC CCGGACCCGGCGTAAACGCCTTTTATCCCTCAATTCGCTTCTCGGTTATATTCCGATCGTTTTTGTGGGTTTTCTGAGCTAAGTTTTGTTCTGTA	G/T
5	CER483565	AATGGTTATAAGGAAAGAGTTTTTCGATGGTATGAAGGAGATTGGCGTGGGGATAGGCTTATGTGGATAATGGTAGGGGAATAAATGGGACCAGTGCT[C/A]JG GAAGGAAGGAGCCAAGAAACAAAGAGAGAAAGTAGGTAACCTTTTGTGAAAACAATGCAGTTGTAGACTTACATTTGGATTCAAACCTTTTAGTGTTC	A/G
5	PERL_911371_Ler	GGCAGGTCCTTGTCTTGGCCCAATAAGCTTTGATATTTGACCTCAAAGAGAGCAACAACCTTTGATGAGCGTGTTCGAAAACCTGCTAC[A/G]JCG TTTCCACATTACAGAGATGATCAAGCTTAGCTTCTCAGCTCATATTCTTCTGAATCACCTACTTTATGTGAAAAGACTTCCAATCATTCTT	A/G
5	PERL_913730_Ler	GCGTTACTAAATTAAGTGGTGTATATAAGAGTAATAGTAGCACAGAAGGACCAAGATGCAAAAATAAATTTGAAATCAAGACTGGGGAGTGACGCACAC[T/A]JTA AAAGGTACGGACAAAACGATGCATTAGATCTTGATTGCTGACAACTGAATTATAAGGGTTAATTGCAATTGAGAAGGTTTATAATAAGTGTCTTT	T/A
5	PERL_916785_Ler	CTATGTAGAATCTAGAAAAGATTAACAAAATTAGAGGAATATAAAAAGTGATACAGCAACTGTTTCTGTCGCTTGACTTTATCTGGGAAGGGAATGAGTTT[C/T]GGG ACTCGTTTGAATCTTCTAGTTGGTATCAAGAAAATCATCTGCGTTGCTTAAACAAAACCAATGTTACTGACTCAGAAGGAATGT	C/T
5	CER434838	AGACCAGCCAATATGGACTGCTTCTGCAAGTGGCTCCACTTCTTGAACCTCAATTCATCGATAGGACTTAAATGGTTGGATTAATGAATCCTATTCCG[T/C]CCT TGCTTTGTCAAAGTATGTTAGATGAATGTGCTTTCATAGTTAACTAAGTGGTGTCCAAGAAGCGAGATATTGTGAACCTGATCTGGACCCATAT	T/C
5	PERL_923014_Ler	AGAATACCCCGAAGCTCGATAGTAGTACCTCCGCGTTACGTGATTGCGTTACGGGGAACTGTCCCAAGTGTGTGAGTGATTGGATACATAACAGCCGAT[T/C]GT ACTCGAGAAACTCCATGGCGGGGTAAAGCATATGCATCATTAGAAAATCTATTTTGGTGGCCAAACCGGAAACACAGCTGTCTGGATCGCTG	T/C
5	PERL_926808_Ler	ATAATTTAGTCATGAGACTTTTCCAATATTTGTTTGCAGAAAACCTGTTGGCAAGAAATTTGACCTCTAATAACTAAATGAGTACACCCAGCGGC[G/C]JACA ATATTTACTCAGTCAATCTTCAAAGATGATAGAAGATTGTGTCACGAAGATAAATGTTCCGCTGTGAAACGTTGAAATCACACCCGGTCAAATTT	G/C
5	PERL_930173_Ler	GATGCCAAGGCCTTGATTCCGCTGATCTGAGACCAAAGTATTTGAGATGTCAAGGTCATTGACTGAGTAGCAGTTCTTGGCTACTGCGACAAGGCTTGCCT[T/C]JTG TGATGTTCTGACGCCGTCAGGTTAAGAGACTCCAATGTGCGTCCGTTGGCAAACAGAAATGCGAGACTGTGTTGTCTGAAACATTGATACATTCG	T/C

5	PERL_933560_Ler	CCAATTTGTTTTAAGATGAAAACCTGTGATTTTTAAATAAGCATTACAAATATTTAAGAAGTAGGGTTATATAAAAAATACATCGTATACGTACATGCGATA[T/C]TGCTT ACATGAAATAAAGCAATTAGGTACAAGAAAATGAACATAACCAAGACTAAGGGAATTTTGGCCATATGAAAAGATGATCTTACCTTCCCTC	T/C
5	PERL_937585_Ler	CGGTTGATAAAGCGACGCGGTGGTTATGCTTACCTTACGCTTATGGCTCTGTGAAGAAATCTTTGAAGCGTATTTACACGCTCCGGTGGACACGTCA[C/T]C GAGGTACAGTTACCTTTCCGGTTATTTCCGGCGGATGAGATTATTGACCCGTTTAGGATTGTTTAGAGTCTGGTAAAGCGAATGGTAGGAGATTAGG	C/T
5	PERL_942083_Ler	TATAAATTATCTAGGCCAAAAAAATAAAAATAAAATCTTAATAAAGTAAAAGTAGTTTTGTTTTGTCATCTAGCGACTAAGCATTCTAGGCGCTAGGCCGA[A/G]GATC ACTGCCGATTTAGCGCCTAACACTTCTTAAACACTAATCCAACCAATGATATATTAAGTCTAAAACATGAATGCAATTGGCATAATTATAAAGC	A/G
5	PERL_946009_Ler	TAAACCCGCTAGTTAACCATCACATTTGGCCTTTGCCATTGTAGCTCACAACTTAGGCAATTTTAGGATTTGATTGGTTAATAGATAGGTGCAAAATGC[A/G]AGA CTTTTTGGTAGCAATGGTTGCTGTTTTAAGAGCTATAAAAAATATTTGATTGGTATAAGAGTTGAAAATATGTGTGTTTGGGGATGTTGTTAT	A/G
5	PERL_949882_Ler	AATCTTTGTCACCACGGCCACTGCAGTTCACACTACCCTTTGGCTCCATCACGAAGATAGGCACGAGTTTTGTCGAGGAACGCGAGCCGCTGAGACGCTTC[T/C]A ATGCCGGTATTATCCCTCCAATCTGCTTAATCGCATGCACGCTGCAGTCGACAACATATAATTAAGCTTAATGTTTTATGTAATATATTAAAAAA	T/C
5	PERL_952964_Ler	AAGACCGAGTGCCTGGGAGAGGATTGGAGACGACCAAGTGCGTGGGAGAGGGATTGGAGACGACCGAGTTCAAGGGATCTGTACCATGTGTTATATCGC[A/G] JGACCTTGGTTTTGTAATGGGTTGGATAGCTCACAGTGGATCAATGGAACCAACCAACCAAGACCCGATTTCTTGCAAAAGATTTCTTTCTGGGTGCGCATTAA	A/G
5	CER477084	GAAGCTTGGGAGAGATTGATCGTGCTGCTACTCTATAAGTATTCCCTCCAGTTTGAGTCAAGCTTCCAGCTCAAGTTCTGGAACAAATGGCATGA[G/A]TT CGAGGTCACAGCACGGGAACGAAGATACCTACAGAGAAATGCTCCGATCAAGCGAAGTGTTCGCAAGCTATAGTCAGGTCGCATCAGTTTCTCTT	G/A
5	PERL_960485_Ler	CCAGGTGGGGCAAGTCTGGCAAAGGCGTGGCACACTCCGGCAGGTCCGGCGGGTGGTCCGGGGCGCATTGGCAAATCTGGCCAAGTATGGCCGAAATC[A/ G]GCGTGCTCTGGCTAAGACTTGGCATGGCTGGGCCGGCTTTCTGGCGGCACCGGTTACTCGGGCGAGTAGATGGGCCTGTTGCACGGTGCCTAGTGAC	A/G
5	PERL_962058_Ler	TGGTGCTCCTGTTATATTGCTTAGGAATCTTATCCGAAAGGAGGGCTTTATAATGGGACCAGGCTACAAAACGCAACTTACCAACAAGTTGTGCAAG[T/C]GA GAGTAATAACTGGAGATAGAATTGGTAAATTGCTTGTATTCCTCTAATCAACCTTACACCTTCAGATATGAAGCTGCCATTCAAGATGCCAAGAAGA	T/C
5	PERL_964521_Ler	TAGGAAAATGGGAAAGAAGAAGACAACCCTAATGTCGACTACCAAGATCGCTTGGATAGTTTACTAGCCCTGCCAGGACGGGAACGACTTCCACTCCTGT[T/C]T GAGAAACCTATCCCTGGAATGGAGACTCTAGTAATTGCGTGAGCTTTGTTTAGTTAGTTAGCATAGTTTGATTGTTCTTTAGATATCCTTAGTA	T/C
5	PERL_965006_Ler	CAAGTAGATTTTATGAGATGCCATTAGTACCAAATGGTTTTCTTCTTTAAACTCAAAGCTATATTTGTTGGTAAACCCATCATGTATCACTCTCCGA[C/T]CAAA TTGCCAAGGCTTCTTCAACAAAACGTGATTAGCTTCCAAGGGCAGAATACATAAGACCTCATCTCATACTTCTCAATGGCTAACGGCACCCTTG	C/T
5	PERL_968445_Ler	ATCGGCTAATACTACATATCAAGAAGACTAGTAGGAGTGTGACACGTCGAGCCCGCCAAACCGGGCGCTCCGTGGCAGACCTCGTCTTCTTCTTCATT[C/T]G CAGCGTCCGGTCCGCCAAGGACCGCGGGCGACAAAACGAAGCCATACCCACCCCGATTGCCATTGGTCTAACGGGCGCCGCCACAGACCATGACC	T/C
5	PERL_972440_Ler	CCTCGAGCTTCATCATTTGATCCTCGGGAAGTGATCTTCGAGCTGAGAGAGCCAAGGAGAAGGCAGAGGAGAGCATCAAACGCTCGACAACCTACTCGA[T/C]C GGACATGACGAGCAAAATCCTCCCGCTTCAACATCAGTTCTGCTTATACTCAAGAGAGATTGGACGATTTCTGCTCCGTCTACTTCACCTGATCACTG	T/C
5	PERL_975061_Ler	TGTGGTGGCCTACCATTATAGAGTGAAGAACTACTGTGTGAAGAATCGGATGTTTGTGTTGGGTTAGAAACCCCATCGGAAGTACACCAGCAACGCC[A/G]AC CGTTTGAAGAATCGGAGAAAAGAAATCAAATTGAGTTGGGATCGAGACAAGTCTAAAACAAGCATACTTCAGGGAACAGGCAAAAAGAAAGGAAAGTTC	A/G
5	PERL_976568_Ler	CCCTGCTTTTTGCTGCATTATAGAACATTTTATTGTTCTGGTCCCCTGCTGCCATCCAGTGAAGCTTTGCTTTCTGTCGAAGATATTTTCTTTCGATTT[C/A/G]GACA TCCTCTGCCATCTCGCATATGCCACTGCCTCTGCATGCACAGATTGAGTTGTTGGAGCCATCATTGTTGCAGTTTGAATTCGCAGAGCTTCTTGT	A/G
5	PERL_980169_Ler	TGAGGATGAGGTTGTGAGTGACACGGATTGTTGAGGTTTCGTTGGCTGTTAACGCCGAGTAGTAGTCGCCGATCATTGGCTCGTGAAGTAAGTACTGAC[G/A]C GGCGTTTTCTCCGTCCGCTAAGCTCGCCATCGTCACTTCTGCTTCTTTTTCCGCCAAGAAACGAGATATCTCCGATTGATTTATTGCTAC	G/A
5	PERL_984734_Ler	TAAGAAAAGTGTACGTTACATATGATGGCACTTCAATAAGGCATATGAGGGTGGACTATGATAAAGCCGGTCAAGTGGAAATGCTATGAGTACGGGGACAA[A/G]A CCGGAACACAATATAAGGTTATTCTAATAAAATATTTGTTTACTATTGATATATTTTTGTTTAAACAGTGGATCACTAATATATAAAAAATGTTTT	A/G
5	CER431735	TAGGACACCCTTAAAAACCAATATTTAATAGAGAAACATACAAAATCTACGCTAAAGATTAATCTAACCAAGGACCAAAGTACCTTTGGCTTCCC[A/G]GTAC TTCCACTGGTGTAGAGCAAAAACAGGGGATCTTCTGCATCAACCCATCCACCTCACACGATGTTGGATATTGAGAAATAACATCCTAAAGTGATC	A/G
5	PERL_993253_Ler	CAATTCCAAGTAAAGTAACAGATGGCGAGGAAGACGTTTTGTTGCTTTTGTAGTTGTTACTTCTGACACTCATTGTTGCTGTTGATGAGAAG[A/C]CTT TTTTGGTCTTTTGGTTCTTTTTGTAGTTATCTCGGATGAATAAATCTGACGACAAATTTGGAACAAGATAGCCTTGTTAAGATTCCAAATG	A/C
5	PERL_998723_Ler	AGGTGGTTACCATGTCTTCGCCTATTCTCTACCCCATATGGTGTGAACCGCTGCTTGAAGGAGATATCGAGCAACGAAGCTCTCAATTCTATCGCGC[C/G]AG TACCCTGAGACTGTAGCGAGTAAAGAAGACCAGTTGTAGAGAAGCGAGATTGATGGTCTTTGGTTCTTCCAAATTTACTAAATGACTTTATCAGGAT	C/G
5	PERL_1004314_Ler	GGCCAGTGGCCATTTATCAGATTTCAAATAACAGATCTCAACACTAGCATGGCTACACACGTTGCAGATTAATGCATCAGTCATATCTCAGCATCC[A/G]ACA CTTGTCAACCTTCCATTGGATCTTAACTCTACGCCTCGAAAACAGTTTTATTATTTATCATTCCATTTCTCATTGTATCTTTCATCAGTCTCTT	A/G
5	PERL_1008140_Ler	TGGGTAAGCCGATTAGTACGGATTTTGGTGAAGAGTTTGAAGCTCAATATATTAATAAAAATATATGTTCCGTTTGGTTCGGTTTGGTTGGTCCGTTCTT[C/A/G]GGT TTAGGTCGCTTTGTATATAGATTTTCAAGAACTTAAATAAATATCGGATAAATACCATATTTTCGGGTAATAACTCGCATTTACAGAGTAAAGTT	A/G
5	PERL_1011779_Ler	AAAAAAAAGATGAAGACTTTATGACAGAGATACTTACAGGAAGTTTCATCAACATCTAATTTGACGAAATCAACATCATTGAATTTATCAGCCATGGCATG[A/G]ATC GCAGGCTCAATCACTACATGCTCCGCACCATGAGGCCGAGAATCAACACCAGCTTTATTATTCACAGAAACCAAAATCAGTTAAATCCATGCT	A/G
5	CER438753	GGCTCAGGTTGAAGACGACCGATTTGTTGAAACGTTGAAAGCGGAAACATTTCAACCATCCCAATGTTTCAACACCTCGATGACTCT[C/T]TT GCCGTCGATACCCCTTTAATAAGCAACAGTCAGACATAAGACACAAAAGAGAACCACTTTCTAATTTAGGACTATAATCCTCACAAAGCAGAATCGAAG	C/T
5	PERL_1018094_Ler	GTCAAGAGAAGCAGTTGTCTCTTCTTGGAAAGGTGATGAATGCTGGAGACGATCTGGTGGTTTTAGAGCAACTCGAAGAAGACACAGACGGAATGGCTCT[A/G]C AAAAGGCGAGACGAAGCATGGGATCGATGAGCGTAATGTCGGTTCAAAGGAATGGTCTACATGGAATACAACCTAGGCCGTCACAAATCCGGTCAGC	A/G

5	PERL_1022802_Ler	TACACAATATCACAGATTCATTTTAGAAAACAAACCACGAAAATGTGTGGAAACAAATTCAGATGAATGGAAACGTTAGAGTAACCGCCGAGTTACCTG[A/G]GCGCGCAATCTGACTACTTCTCTGATTGAGAAAGCTCATTGTCTTCTTCAAACCTCTCAGCTATACTTGTGAAAAACCAAGACCAACGTTTAAAGGAATGG	A/G
5	PERL_1026634_Ler	TACGGCCTAACCGCCGACAATCTCCACCTCCGTCAGCGAGTGCAAAGCTCCTTCAATCCACAACCTTCCAAAAAGTCCGTCCTTACGGATCCGACCCGG[C/G]TGTAAATCAAGGCCCTAGCAAAACCGGGGATCGAGATCGTCACTCGGGCGTCTAACGGCGATGTACCCGGCTAGCATCGGACCCGAGTTTCCGCCGAAGC	C/G
5	CER441019	CACTTTCATGGTTTTCTCTGAGAAGGAAGAAGTTTTAGGGAACTTAATCTTGTAAAGCAAGTAAAAGACAAATCGTTTTGAGGCTTTGCTTCCCGCATC[G/T]ACATAATCTCCAAGAAACAAGTAGTTGAATTAGGAGGGTATCCGCCATGTTTCAAGATAGTCTCAAGAGATCCGGATATTGTCATGAATGTCCCCTGTTT	G/T
5	PERL_1037843_Ler	ACACAATCTTTTCGATCTTAGCCGTTGATTACCCAGTGAATAAGGTGAGCTGCTATGTGTCTGATGACGGTGCATCAATGCTCCTGTTTCGATACATTGTC[C/T]GAAACTTCCGAGTTTGAAGGAGATGGGTTCCGTTTTGCAAGAAGTACAATGTTGAGCCAAGAGCTCCAGAGTTTACTTCTCAGAGAAGATTGATTACC	C/T
5	PERL_1042398_Ler	ACAAGATCGTAAACGAAGAATGCTTGAAGATAACTACCATGCCACGCCGAATTTCTTATGCAATCCGTCAATTATGCACGTTCAATTGGATGTTCTCTATAC[C/T]GCGGATGATGTTTACAACCACCGCGAAGGAAAACCTCAAAGAGTATATGAGGCTTTTCTCGTAGATCCTATACTTCTTAGGACTTGGGATGCATCATGT	C/T
5	PERL_1048451_Ler	TCTCTACTGACGATCTCAAAGGAAAAAGAGTGGAGATGCAAGGTTTTATTCAAGATGCTGCCCGTGAATTCATCAACCAGACTTCGAGGCGTCGCAGAC[A/T]CTGGGAACCATCAAGAATCAGATTACTAGAAAAATGATAAATCTAAGGTAGGTGATACATTCTGTATCTATAACAATGTTTATTTAAATGTTTAAAG	A/T
5	PERL_1054488_Ler	TAAACTAATTGTATATGTGTAATTTGGGCAACGTAAGAAAAGAAATTTATGCAATTTCCGTAACCTAACTTATGTTGGGAGATCGATGAGACGAC[T/C]CAAACCTGAATCATTCTCATTAACTCTTCCAACACTTGATTATTATCTCAATATAAACAACTACGTTAAGAAATTCGCAAACTGTTTTCTTTTAAAGAAAAT	T/C
5	PERL_1058363_Ler	CATTGCATCAAATTTTTCTGACCCGATCACTTCCAGTCCGGACAATAATCATTTTTCAAACCAGACCCAACTCTTCAAGTAAACACCGAGCTTTTGT[C/A]GACTAAAGCAGCCACAGACTTAAACGAATTTTTCTTCAATTTTCGAGTGGTTGTTCCGTTCAAATTCGAAGCCTTTTTTTCATCTGTAGACATGTTTACAG	A/C
5	PERL_1060855_Ler	CCTTCAAATAATGTAGACGAAGGACTTGTAGCTCTTAAAAGGATCAACCCCAACACCTTGTAGCTTCTCTTTGTTTATTAATTTCTGTCTCTTAGGCGA[G/C]GATCCACGTTAGAGACTCGAGATTTGCAGCATACATCAGCCATGTCAAATCCTTTAGATGTATGCATGAGTTTATTACACAGCTGAGAGATCCTTGA	G/C
5	CER436994	ACTCTGATTGCTGTGGTTGAAGAACATAAACGGGTGTTTTAGTTGTGAGTTGAGTACAAGTTTTGTTACAATGGAACCAAATCAAGACGTTGCAGACG[G/A]CGTTGAGAGTGAAGATTACATTCTGCATCTAAGTGTAGCAGCCTGAGCTCCGGCATCATATGGGTTGTACGCCATTAGTTCATTCAACTGAGTCTGAA	G/A
5	PERL_1067562_Ler	CCATGAACCTCAATACCTTCTTTATATCTTCCAACCTCTCTCATGGAACAAGCGGTTCTTGAGACGGATTCTCCTGTATCTTTCTTCTGCTGGCTTCTTCGC[T/C]JACGTTCCCTACAATTGTCAGAAGCGTTTCAAATACCCTCCTCGTATTCTTGGATCTTCACTTCAAAAACAAACAAGATTTTATTATCTCTCTCTCTT	T/C
5	PERL_1070916_Ler	AGATCGCAAGAACAAGAACAAAGAAACAAAAGAAATCTCTCAAGCATCATCATCAAAACATGGCGAATCTAGTTACGTCATGACATCATC[C/A]GTTGGAGCTAGCTGGAAATCTCTCAAGCATCTTCGATACTTCATCTTACCTTTTCTTATTCTTATTTCGAAGATCACTCTTCTAATAATCCTAATTC	C/A
5	PERL_1073332_Ler	TAGCATCTGAAATGAGTCCAAGCATTGTAGCAAATATCAACATACCACCTGCACCTATAGCAACAGAACTATTCTTGTCCAACACCAACTCTATCAGC[A/G]TGACTTCCCGAATCCGCTACAAAAGTCCACGATAACCAAGGGCTTCATCAACCCCAAGCAGTCACTAACAGCATACAATGCTAATCCACCATAAACTATAA	A/G
5	PERL_1075675_Ler	AAATCCAAAACCAATCAAAGGACGCTCTGTTTTCTGAAACAACACGATTAGAGAGATCTTCTTATTTATTAATCTCTTGGACACTTAAACGGTTTT[T/C]GCACGATTTGGTTCTAGTTTCAACCCAGGACGAATGTTTTATAAATTTACAACCAACCCGATGAAATTAGTTGTTCTTCTTCTTCTGAGTAATCAACTAATC	T/C
5	PERL_1078160_Ler	TGCAATTCGACAACATAACCCGACAATGCTACAAGTCTTATCCTCCTACTCATCGAATATCAAATCCGACCCGATCAAACATGCACCACCGCGCTTA[A/C]CCTCAACGTGAAATCCGCAAAGGAAGCAACGTCCGTTGTCTTAAGCTTCTCAAATGTCTCAGAAATCAACCGCCGGACGAAAGGTAATGTTACCA	A/C
5	CER426941	GACTACACGCTTACAATGGCTCTTATAGGCGCGTCAGGCTCCGACGACGGAACGGTTCAAATGTGGGATCCACGTAACGGAGGGACGTTAGAAGAAA[C/T]GGTTAGGCCCGGTGGTGGAGCGCGGATTTGTTCCGTTAGAGTTCGATCCGTTCCGTTGGATCTTCCATAGCCGTTGGATGTGCTGACCGGAATGCCTACGTG	C/T
5	PERL_1084153_Ler	AATAGTAGTATAACAACAAAGTATCGCATGATTATTCTCCTAATCTTCGATTTCTGTTTTCTACACAAAAGTCCGCCAACATAAATCATGCAACGACAAAG[C/A]GGGATCGAGGGATAGAGAGAGCACACAACACAAGAGCTGCCTTTGACTTTTTCAAACCCTAAACCAAATGACCGTAACGTCCATCAACAACACGTCCC	C/A
5	PERL_1086348_Ler	TCTCACACTATATCTCAAATCACAGAAAACAAAATCTTTTTTAAATATACAATTTAAATCTTTTACTCCGATTTAAATATAACATTTTTGGGACAACATA[G/A]JCCAAACGTTACAAGACGTCAATAAATCCATTGACGGTTACAATTTGATGATAGGTTGCTTTCGTTACCCTGAGTCCCTGAGTATTAGTGTGGATATCC	G/A
5	PERL_1088463_Ler	TCGTGATTTTGAATCCTTATGAAGATGAATGCACCTCTTTGGATAAGAAGTGCCTATGGCGTTGTTGATGATAAGTGAACCTGTAACCATCGGTTT[C/A]CATGGCTGGATAGCTACTTTGAGTCAGGACGACGACTACTCGCTCCTCAAGACGATCAAAACCCGGTTGCATCGGATCAACCCGAAACGCATCTCCC	C/A
5	PERL_1091480_Ler	CACGACAAAATAAATCAATAAGTAAATTTCTTTTAAATCAAATCACGCCTTTCGCTCTCCTTGCATCTCGCTGAATCATCTCAGACCGTCCCATGAGGC[A/T]AAGCGATGGATTCCGTCATGGTTGTCACGCATATGCAGTTTTATTTAGTTTTATTTTTGGTAAAAAGTAAATTTATATCATTTTTGAAATTTA	A/T
5	CER441642	TTGGACTTTTCTTGCATATTGCTTGCCTTCGTGAACCAGTCTTTGGTTTTCCGGTCAACCCAGCTTTGGGTATCTTCAGTTGCGGCACAGATCGTGAC[C/T]CTCCGCTAGGAAACTCATGGCAAAGACGCTACCACAAAGAAATTTGGTTTTCCGGGACGAAATGGTCTGGTCTTTAACCTGGTCCGTTCAATA	C/T
5	PERL_1096052_Ler	TCATTACCCTAAAGAAATATGAATTTCCATAAATCAGTTCTTTCACTCTGTTAGCAAAGACAGTATAAGGGTCTTTTCTCGAGCACGGACTGTTCTT[C/A]GCCATTTGCATCACTATTCCAACCTCTTCTTGTGGCATCACGTTTGTAGTGAAGAGTTGATATAAAGCTGGAAGAAGCTATAATAAGGTTTCAAGT	A/T
5	PERL_1098054_Ler	ATGGAGCTTGAAATTTGAAATTCGATGAGGAAAACAAATCGGAAAACAGTAACTTACTTTGAGATCGTATTACGATCATTCCGCCGGCATTTCGAAACG[G/A]CGATGAGAGCTTCCACCTCCGGCCAAAACGGCGGCTGAGCAAACGATGAAACGAGAATCAATTCACAGAACAGATCTAATCTAAGCAGAGAGAGAGA	G/A
5	CER436560	CAAAGGATAGACTAATGGGCTTAAAGTATTTGGGCTTTATTATAGGCCATTAAGCACCCGGAACGCTGACATTTGAGTAGCTAGCTCCGGG[A/C]GCAAAATTCAGTCTGTGAAACTTTCCGAGAAAGGGATGTCGAGAGGATCTCGATTTCGTTAGGGCTCCTGGGCTTACTCTGTGCGGTTAATCTTCAA	A/C
5	PERL_1101746_Ler	GAAGAGTTTAAAGATTTATAAAGAAGAAGACCGTACAGATGGACAGATTTAGCTGAAGGCGTACGACAATATCACCTGCCAATGTTGTGAGTTTGGCA[C/G]TACGAGAGAGATTAAGGATTACAGGATTAAGGAAACCTATACATATGTTTTTCTTTTTTCTTTTTCATTATAAAAGGTATACATGATAAATATGTTATCTT	C/G

5	PERL_1105321_Ler	ATTAGTACCTTATCAATATAATGAGAGTTTTCTCGGAACCTCCTCAACGGACCATCCTCTAGGCAATCGGAAACCTTTGGAGGCATATTCAACTCCGC[A/G]GTG ATCCTGCAAAAGCATAAACACACTGATTTTAAGTATTTGATCCAAGAAGAACCATATGCTTCTGTAATTTCAAATCAGAACAAGGACCTGTTTGGT	A/G
5	PERL_1107666_Ler	TTATTCACCTTTCTTTCCAACATCTACTCTCTAGTACTAGTAAAGTAGTAACACTGAAGAATTTAAAGTTAGGGGCAGAAGACTTATGCAAAACACCTAAC[G/C]GCAC TCAGTCTCACGATTGCTCCCAACAAGCCTTCATGGACTACTGGTTCTTCTTTCATCAAACAACCTTCATAGAAGACTATACCGGACTCAGACCACG	G/C
5	PERL_1109312_Ler	TAAAGAATTTGTTGGCCCAAAAGTTAAAGAATCACCATCTAGGCTTTTAGCCTACAAATTTGGACAGATCATAGCACAGAGAATGATTTCTCTAACATG[G/A]ATC GGCCAGGCCTTAATACTAAGCCAATGTGACAATAAGACAAGTCATAAAATGTTATTTCAGATACATGAATATGTTTGTCTTCGTTGGATCAAAAACC	G/A
5	PERL_1110914_Ler	GAAACACTTAATGGATGCTTATAATAAGAAGTAAGACTTTCCGCCGCTGTGGAAAATATAAACCATAGAATTGGGACTGCTTTTGTAGAATGTGGACCG[A/T]TCCG GACTTTGTCAAATTTTCGTTTAAACCGTTGGTCTCCTTTTCGTTACTCATTTCCGCACGCCATTAACGATAAAGATTCCCATTTATTTTCGTCGTC	A/T
5	PERL_1112536_Ler	GCTAACCAAAATGAAACAAGTACAATGGAACCAGCAGCTTCCAGAGGCAACGATCATGGGTACCTCCACAACCACCTCCAGTTGCCATGGCAGAAGCAG[T/C]C GAGGCCATTCGCCGCTCTAAGCCACAAGCTAAGATAGACCAAGAAGCAGCTGCTAGTGATGGCCAGTCAGGTGTGAGCGATGAGTTACAGAAGATCACT	T/C
5	PERL_1114716_Ler	ACAAAACAAAAATCAGAAAGACAAATCGATAAATTAGTAAAGAGCTAGAGAAAGATAAACTTGTAAAGAAATAGGGTTAAGGCTTACTAGTAGCTTGCGCC[A/T]GAA ACAACAAGATTGAATCGAAGGTGGAGATAGCTAATTATCGTCTAGGGTTTGCCATTTTCACTCTCCAACGGGGGAATTGGGGATATCGTCAAGCTA	A/T
5	PERL_1116668_Ler	TTTTATTGATGGAGGCACAAGAACCTGCATTGGTATCATCAGCTTCTGTCTTTTCTCGGTTGATGATGCAACGGTGGCAGCGGGCGATCAATGGAGTCC[A/G]T GCAATCAGAGACCGCACTGACTCCAGATTGAGAATGATCAGTGGTAGTAGTAGTAGTTGCAGTTGTTGTGGTTTGTAAAGAAGTAGAGACAAGGCC	A/G
5	PERL_1118867_Ler	GAACGAAAAAAGGAACAACAACTAGAGAGCGACCTTCTCTTACCAGGCGGTTACTCTCACGCGCTAACGTACATATAGACGAGTCCGAGCGATCTCGC[A/G]G CGGCGTTTATCGATACCCTAAGCTCGTGGTTGTTTCAGATTTTTGTTAATTGAATTCTCTGCATCGAGATAGAGGGAGATGTGGGTTTTCTATCTGATC	A/G
5	PERL_1120950_Ler	GAAGACGGTCTTGATTACACATCTATACGTGCTCTAACTCTTCTACGCCGATGCAATTGCAGACTGCATTGACTTCATCAACCGCTCCTCCGCTTGAC[A/C]GC TTCTCATTCTTCCAATAATTTCTTCCATTTTGTAAAATCCAATGTTTCTGTATATGCAACCAATTCGAATTCCTTGTATTATTTATTTTTT	A/C
5	PERL_1123914_Ler	ATGCAGTGATTCCCTGGGCTAATGGCTGCTGGGGAGGCAGCTTGTGCATCTGTTTCATGGTGCCAACAGGCTTGGTGCAAATTCCTGCTCGACATTGTCGT[A/G]T TTGGTCGTGCTTGTGCAAATAGGGTTGCAGAGATAAGCAAACCAGTTAGTCTTTTTTGGAGACTGCTGTTATTATAAAAGATAAGTCTCTTCTGATCA	A/G
5	CER435876	AAAACCTTAACCCTAAGAATACGAAGCAGAACCAAACTTAGCTCTATGAAATCCGAGAATCGGAACTTTACCTGCAAATCCTCGGAGGCCAGCAGAAG[A/G]CG AATATCCCGACATCACATGTATATAATCTCAGAAATTATACAAAAATTCTCAACTCTTTCGCTTCTCCGGAGCAAAACACCAAATCCGAAACACTT	A/G
5	*PERL_1126141_Ler	TGTCACAACCTAGAACTAAAATTAAGGATCCATTTTAAATGTTAAAAAGAAAAAATTGGACGATGAGAGTATTAACATGCCTTACCGCATTATCAGCGC[C/T]ATCTT GGTTCGATTCCGATCCGAATTCGGGTTGACTTTGCCCGTTCTGATCCAGCTTCTTCTTCTGTGTTTCGTTCTTCTTCTCGTCAAGTCAAG	C/T

Supplemental Table 1 : List of SNPs used for genotyping

* Genotyping performed with Taqman technology

(1) SNPs genotyped only in female population