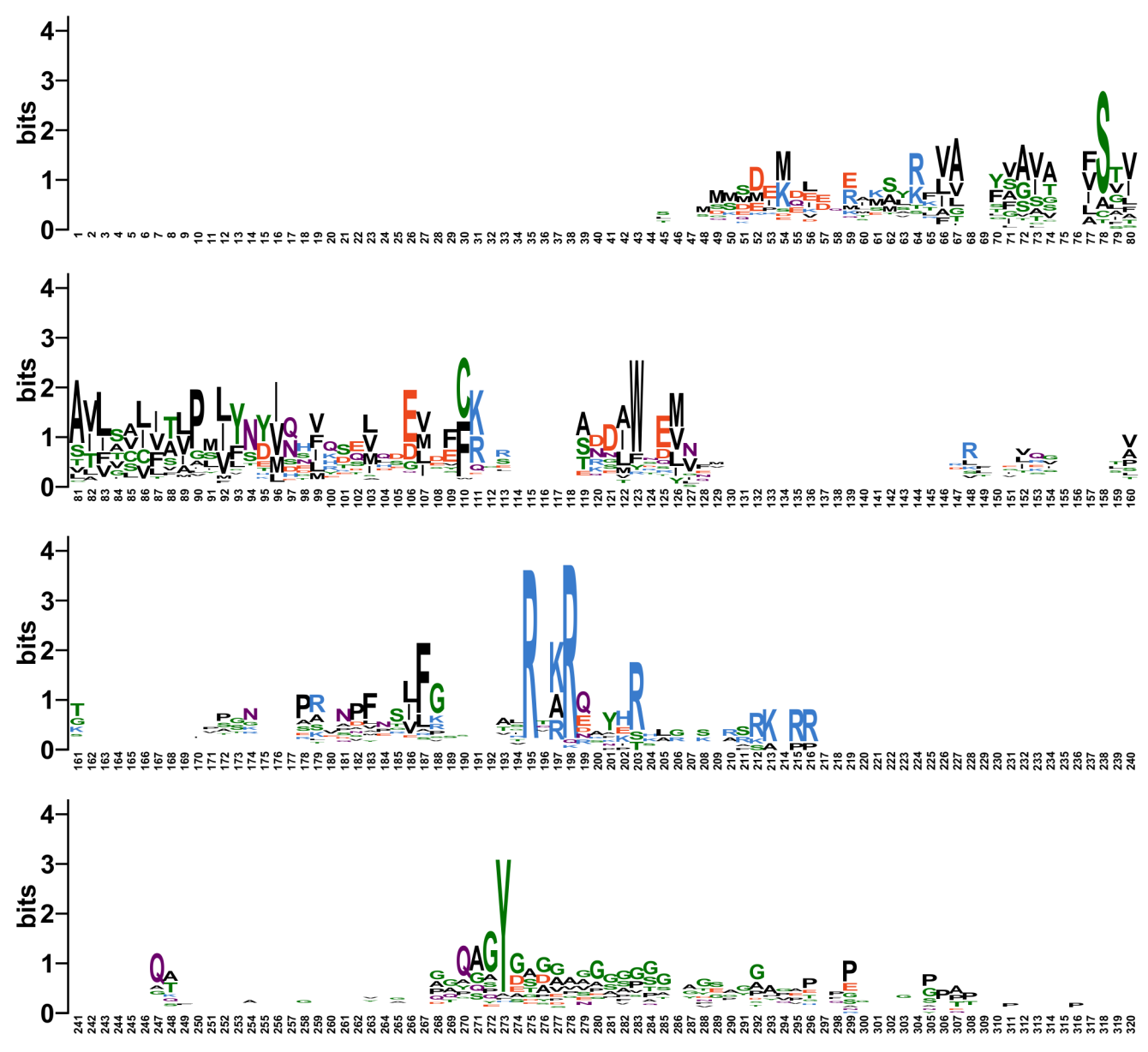
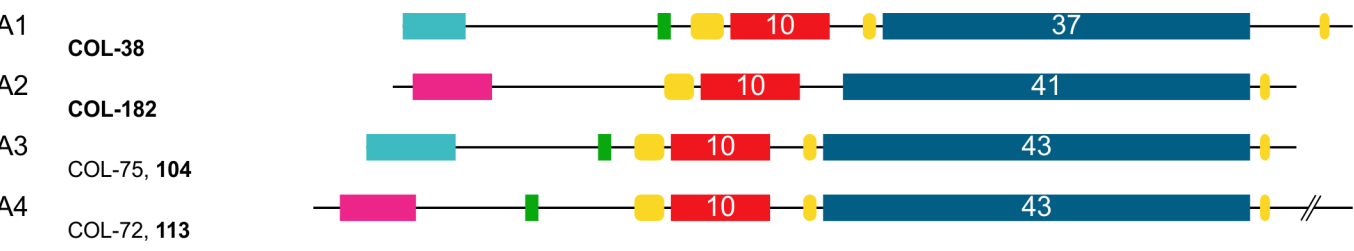


Supplementary Figure 2

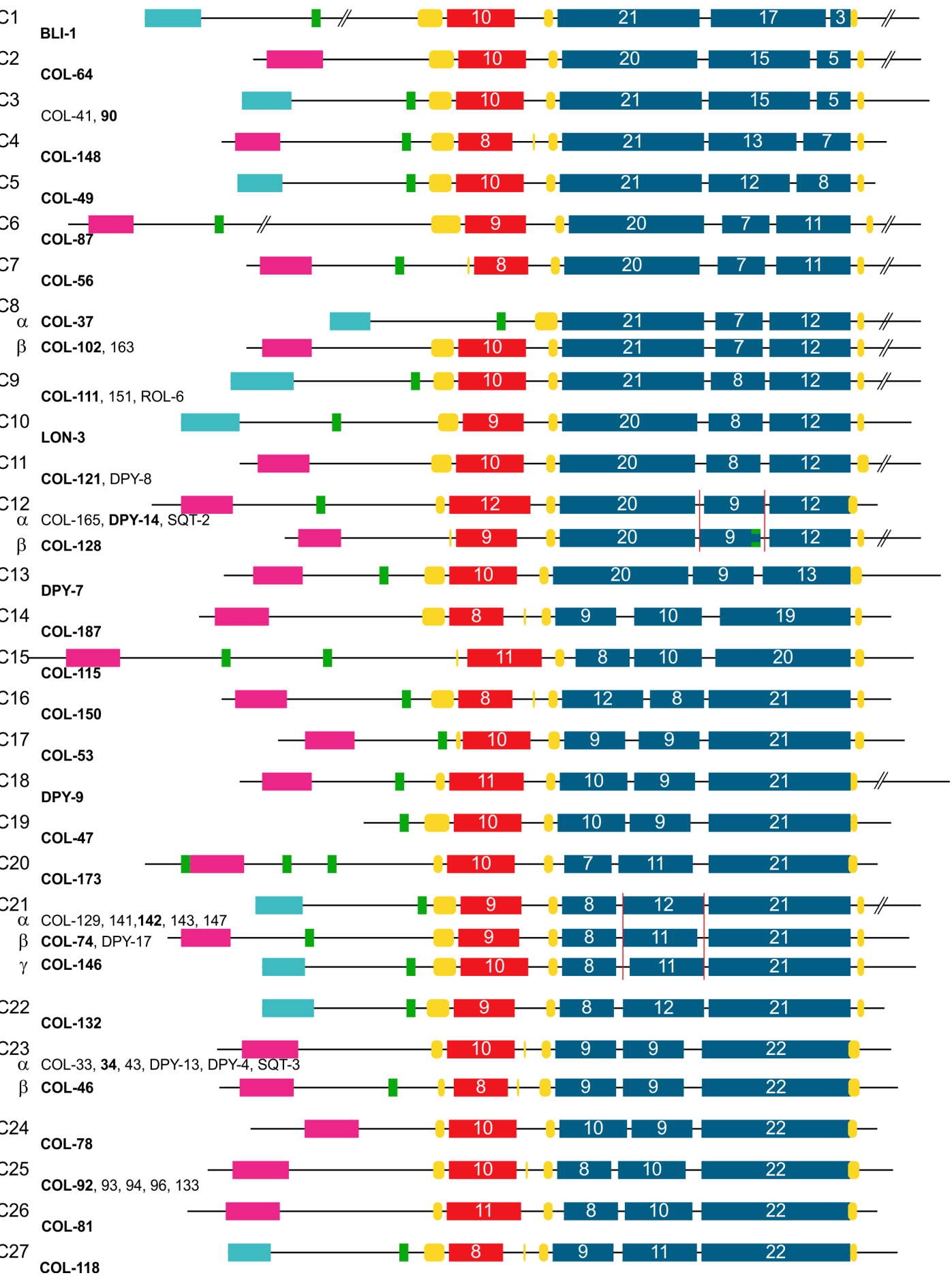
Sequence logo of the N-terminal region of cuticular collagens



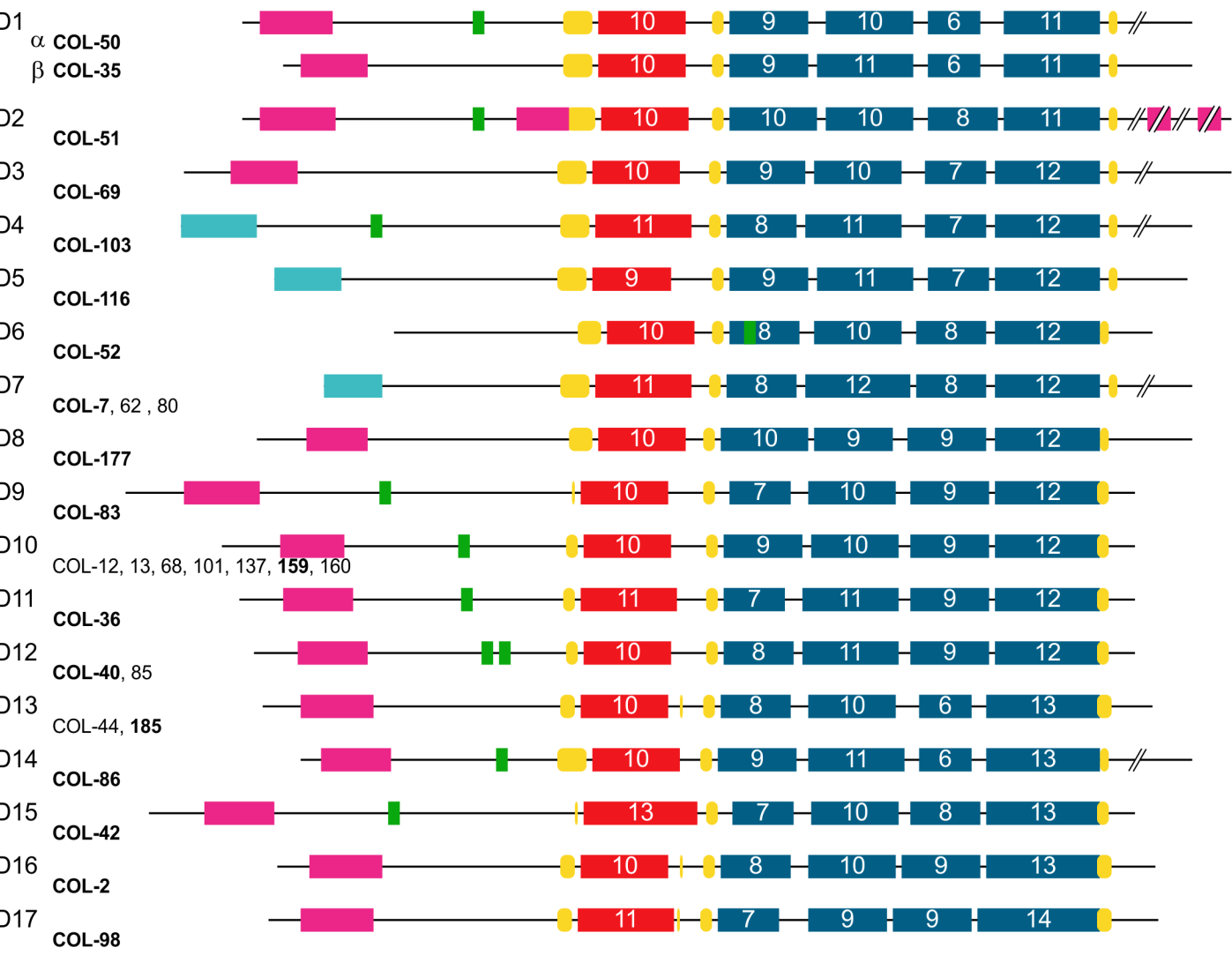
Supplementary Figure 3



Supplementary Figure 5

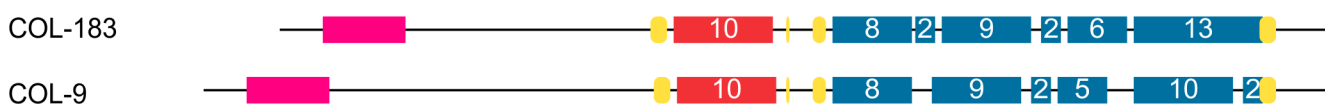


Supplementary Figure 6



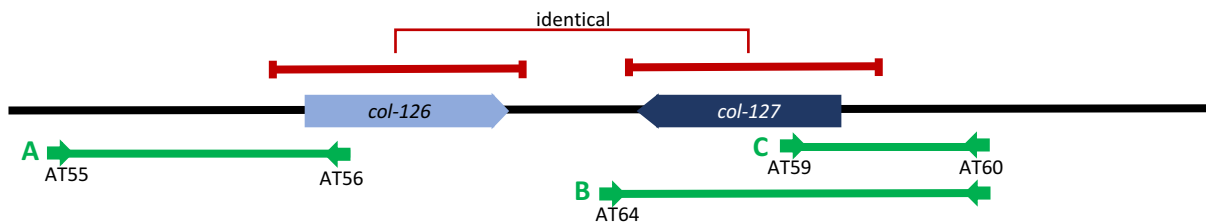
Supplementary Figure 7

Cluster E

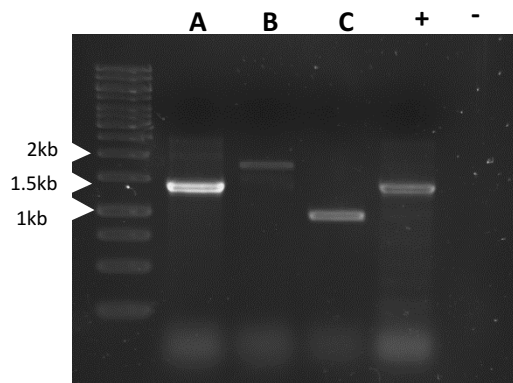


Supplementary Figure 9

A.



B.



C.

Name	Sequence
AT55	CCCATCTCGTCCATCTCTCC
AT56	GGAGTGACAGTAACCTGAATGTCC
AT59	ACGCTTTTGACGGAAGACAG
AT60	CACAGATTATTCTCAAATGCCGTC
AT64	GCAACCAAGAAGCAGTATGC

D.

Name	Sequencing result
A1	TTGGAGATTGGTCTCGTGAGAAAATTAATGATACTCAGCATGTGCTTCAGACAAAAGTTTATATCCGGAGCCACCGGTTTCCATTGACGGGAAGAAAGTGTAGTCTTTAACAAGTTTTCTGTTGGTTGGTTGCTTAGGAAGAAACGCATTATCTTGACCGGATGAGCTACTTGAATAGAAGTCTCATCGAATTACAGAAATAAAAATATATGCTGATTTCTTCAGAAAATGCAACTACATTGGTCGCATTCTTGGTCCATCAGGAATGTCTGCAAGAATGATTGAAAATCAATATGATGTTACTCTTATTTCGTGGAGCCGGATCTGTGAGAAACAAGGCAATGATGAAAAGAGTGAGGAAGAGAAATGAACACTTGGAGGAGCCCTTCAGGTTCTTCTTATTGCAAGACACAATGACAAGACAAGTTGTCTAAATATAATAATTTCTTAATACTACAAGAGTTTAGATGTGAGGAGATTCTCAACAAGGCTGCAGAAAAAATGAAAAGTCTTTGACTCCAATTCATGATGAGTACAAAAATGGATCAATTTGGTTAGTTATGCAAAAGATGAATGGAACCTTATCAGGAAAGACCAAAAAAGAAA AAGCCAAATGGATGAGCAATCCCATAGTAATTATTGGGCTCCACACTGAAAAGAGATGTAGAAGATCCAGAAATTAATAAATTA-TTGATTCTGCGGATATAAAGGATTGAATTGATTGTTACTGAAATCTCAGATAACAATGCCACATGGGGTGTGA
A2	GGGCTGCAGAAAAAATTGAAAAGTCTTTTTGACTCCAATTCATGATGAGTACAAAAATGGATCAATTTGGTTAGGTTATGCAAAA GATGAAATGGAACCTTATCAGGAAGAACCAAAAAAGAAAAGCCAATTGGATGAGCAATCCCATAGTAATTATTGGGCTCCACACTGA AAGAGATGTAGAAGATCCAGAAATTATAAATTTATTGATTCTGCGGATATAAAGGATTGAATTGATTGTTACTGAAATCTCAGAT AACAAATGCCACATGGGTGTTGAATTTGTGCAAAATCAATAAGACCTTTACACGGAACCTGTTACGAAATGATTATACGTTACAACAA GGACAATACTTCTGAAAAATAAATTTCTCTGCGCTTACCCTCGCCTAATTGTTGGCTTCTTCTTTTAAATGAGGAAGTAATGTTTTTA ACTGAATATTGCTTTACACTCTCCACCTAATTGCAAAAAAGTGTAGGAGTAACACATTCATAAAGAATGAAGAAAAGATGAGTATAA AAAGAAAAGAAAATCAAGAGAAAAGGTACCATTTCGACATGGAGAAGATTCTTGAACCATCTCAACTGGAGCTGCATCCATTGCAG TTTTGGCTGTTCTTTCACTGTTCCATCTCTACAATACCATCAACGAAGTTCATGATCAAGTAAGTTATTCATACAGTTTCC
C1	GGAGACAGAGTTGAATGGATTGACACGTGGCTTAGTTGGTGGAGTGACAGTAACCTGAATGTCCATCATCTCGTCCAAGCAGAATC GGTTTTCAACACGGAAAACGGAACTCCATCAAGAACCTGAAATTAATTAATGTGATGAAGTGAACTGTATGAATAAATTAATTAATGATC ATGAACCTCGTTGATGGTATTGTAGAGAGATGGAACAGTGAAAAGAAGACGCAAAACTGCAATGGATGCAGCTCCAGTTGAGATGGT TACAAGAATCTTCCATGTGCAAAATGGTACCTTTCTCTTGTATTTCTTTCTTTTATACTCATCTTTTCTTCAATCTTTATGAAATGTGT ACTCCTACACTTTTTTGAATAAGGTGGAAGAGTGTAAAGCAATATTCAGTTAAAAACATTACTTCTCATTAAAAAGGAAGAACCCAC AATTAGGCGCGGAAGGTCCGACAGTGGACGTTGTAACCTACAAAAAGGAAAGCAAGGACAATGCGATTTCCGCAAGACAACAAT AAACCTTGAATTTATGAACTTTTGGTAGATGGCAAGAGAGAGAGAGAAGGGTTTAACTGGCCACAATCCTGTGTTTATTTACTTCTT GTATCTAGTTAATATGTATGTAGAATATTTAGCAGATTTTGTATTTGGATTGAAATAAAACATTTTTTATAATAAAAAATTAAGG GTGATGTTGATTAATATTAGAAAGTTCGGGAAAAATTTGAGAGACAATATCTTTATTAATAAACTGGAGTCAATCTGAATCCATCTGCC CAATTTTTTCCAATGGTTTGTCTATTTTCATCAGTTGTCATTCCATTTGGACGAAGAAATCTCAATTTGATTTTGTCAATTTCAAGAGGAA TTTTCCGAAATGATGAGAGTGAATTCGGGCGGTATGGAGATTGGAAGGACTTGAAT
C2	GGCTTAGTTGGTGGAGTGACAGTAACCTGAATGTCCATCATCTCGGTCCAAGCAGAATCGCTTCAACACGGAAAACGGAACTCC ATCAAGAACCTGAAATTAATTAATGTGATGAAGTGAACTGTATGAATAAATTAATTAATGATCATTGATCAATCTCGTTGATGGTATTGTAGAG AGATGGAACAGTGAAAAGAAGACGCAAAACTGCAATGGATGCAGCTCCAGTTGAGATGGTTACAAGAATCTTCTCCATGTGCAAAATG GTACCTTTCTCTGTATTTCTTTTATACTCATCTTTCTTCACTTTATGAATGTGTTACTCTACACTTTTTTGAATAAAGGTG GAAGAGTGTAAAGCAATATTCAGTTAAAAACATTACTTCTCATTAAAAAGGAAAGCCACAATTAGGCGCGGAAGGTCCGACAGTG GACGTTGTAACTTACAAAAAGGAAAGCAAGGACAATGCGATTTCCGCAAGACAACAATAAATTTGAATTTATGAATTTTGGTAG ATGGCAAGAGAGAGAGAAAAGGGTTAACCTGGCCACAATCCTGTGTTTATTTACTTCTGTATCTAGTTAATATGTATGTAGAATA TTTTAGCAGATTTTGTATTTGGATTGAAATAAAAACATTTTTTTATAATAAAAAATTAAGG