

miR-515-2 TCTCATGCAGTCATTCTCC AAAA G---AAAGCACTTTCTGTT-GT----CTGAA--AGCAGAGTGCCTTCTTTTGGAGCGTTA-CTGTTTGAGA

miR-522 TCTCAGGCTGTGTCCCTCTAGAGG---GAAGCGCTTTCTGTT-GT---CTG AAAA G AAAA TGGTTCCCTTTAGAGTGTTA-CGCTTTGAGA

miR-520e TCTCCTGCTGTGACCCTCAAGATG---GAAGCAGTTTCTGTT-GT---CTGAAAAGAAAAGAAAAGTGCCTTCCCTTTTGGAGGTTA-CTGTTTGAGA

miR-518e TCTCAGGCTGTGACCCTCTAGAGG---GAAGCGCTTTCTGTT-GG---CT AAAA G AAAA GAAAGCGCTTCCCTTCAGAGTGTTAACGCTTTGAGA

miR-516-1 TCTCAGGCTGTGACCTTCTCGAGGAAAGAAGCACTTTCTGTT-GT---CTGAAAAG AAAA GAAAGTGCCTTCCCTTCAGAGGGTTA-CGGTTTGAGA

miR-516-4 TCTCAGGCTGTGACCATCTGGAGGTAAGAAGCACTTTCTGTT-TT---GTGAAAAG AAAA GAAAGTGCCTTCCCTTCAGAGGGTTA-CTCCTTTGAGA

miR-517b -----GTGACCCTCTAGATG---GAAGCACTGTCTGTT-GT---CTAA--G AAAA GATCGTGCATCCCTTTAGAGTGTTA-C-----

miR-519b ---CATGCTGTGACCCTCTAGAGG---GAAGCGCTTTCTGTT-GT---CTGAAAAG AAAA GAAAGTGCATCCCTTTAGAGGTTA-CTGTTTG---

miR-519a-1 -CTCAGGCTGTGACACTCTAGAGG---GAAGCGCTTTCTGTT-GT---CTGAAAAGAAAAGAAAAGTGCATCCCTTTAGAGTGTTA-CTGTTTGAG-

miR-519e TCTCATGCAGTCATTCTCC AAAA G---GGAGCACTTTCTGTTTGA-----AAG-- AAAA CAAAGTGCCTCCTTTTAGAGTGTTA-CTGTTTGAGA

miR-518b --TCATGCTGTGGCCCTCCAGAGG---GAAGCGCTTTCTGTT-GT---CTGAAAAG AAAA CAAAGCGCTCCCTTTAGAGGTTA-CGGTTTGA--

miR-525 -CTCAAGCTGTGACTCTCCAGAGG---GATGCACTTTCTCTT-AT---GTG AAAA AAAA GAAAGCGCTTCCCTTTAGAGCGTTA-CGGTTTGGG-

miR-518a-1 TCTCAAGCTGTGA--CTGCAAAGG---GAAGCCCTTTCTGTT-GT---CTGAAAAGAAAAGAAAAGCGCTTCCCTTTGCTGGATTA-CGGTTTGAGA

miR-520b -----CCCTCTACAGG---GAAGCGCTTTCTGTT-GT---CTGAAAAG AAAA GAAAGTGCCTTCCCTTTAGAGGG-----

miR-518a-2 TCTCAAGCTGTGGGTCTGCAAAGG---GAAGCCCTTTCTGTT-GT---CT AAAA GAAAGAAAAGCGCTTCCCTTTGCTGGATTA-CGGTTTGAGA

miR-519a-2 TCTCAGGCTGTGTCCCTCTACAGG---GAAGCGCTTTCTGTT-GT---CTGAAAAGAAAAGAAAAGTGCATCCCTTTAGAGTGTTA-CTGTTTGAGA

miR-518f TCTCATGCTGTGACCCTCTAGAGG---GAAGCACTTTCTCTT-GT---CT AAAA G AAAA GAAAGCGCTTCTCTTTAGAGGATTA-CTCCTTTGAGA

miR-524 TCTCATGCTGTGACCCTACAAAGG---GAAGCACTTTCTCTT-GT---CCAAAAG AAAA GAAAGCGCTTCCCTTTGGAGTGTTA-CGGTTTGAGA

miR-527 TCTCAAGCTGTGA--CTGCAAAGG---GAAGCCCTTTCTGTT-GT---CT AAAA G AAAA GAAAGTGCCTTCCCTTTGGTGAATTA-CGGTTTGAGA

miR-520f TCTCAGGCTGTGACCCTCTAAGG---GAAGCGCTTTCTGTG-GT---CAGAAAAG AAAA GCAAAGTGCCTTCCCTTTAGAGGGTTA-CGGTTTGGGA

miR-521-2 TCTCGGGCTGTGACTCTCCAAAGG---GAAGAATTTCTCTT-GT---CT AAAA G AAAA GAACGCACTTCCCTTTAGAGTGTTA-CCGTGTGAGA

miR-523 TCTCATGCTGTGACCCTCTAGAGG---GAAGCGCTTTCTGTT-GT---CTGAAAAG AAAA GAACGCGCTTCCCTATAGAGGGTTA-CCCTTTGAGA

miR-520h TCCCATGCTGTGACCCTCTAGAGG---AAGCACTTTCTGTTGTTGTCTGAG AAAA AACAAAGTGCCTTCCCTTTAGAGT--TA-CTGTTTGGGA

miR-521-1 TCTCAGGCTGTGACCCTCCAAAGG---GAAGAACTTTCTGTT-GT---CT AAAA G AAAA GAACGCACTTCCCTTTAGAGTGTTA-CCGTGTGAGA

miR-516-2 TCTCAGGTTGTGACCTTCTCGAGGAAAGAAGCACTTTCTGTT-GT---CTGAAAAG AAAA GAAAGTGCCTTCCCTTCAGAGGGTTA-CGGTTTGAGA

miR-517c TCTCAGGCAGTGACCCTCTAGATG---GAAGCACTGTCTGTT-GT---CTAA--G AAAA GATCGTGCATCCCTTTAGAGTGTTA-CTGTTTGAGA

miR-518d TCCCATGCTGTGACCCTCTAGAGG---GAAGCACTTTCTGTT-GT---CTGAAAAGAAAACAAAGCGCTTCCCTTTGGAGCGTTA-CGGTTTGAGA

miR-526b --TCAGGCTGTGACCCTCTGAGG---GAAGCACTTTCTGTT-GT---CTGAAAAGAAAAGAAAAGTGCCTTCCCTTTAGAGGGTTA-CTGCTCTGA--

miR-520g TCCCATGCTGTGACCCTCTAGAGG---AAGCACTTTCTGTTGTTGTCTGAG AAAA AACAAAGTGCCTTCCCTTTAGAGTGTTA-CCGTTTGGGA

miR-526a-2 -----GTGACCCTCTAGAGG---GAAGCACTTTCTGT-----TGAAAAG AAAA GAACATGCATCCCTTCAGAGGGTTA-C-----

miR-520a -CTCAGGCTGTGACCCTCCAGAGG---GAAGTACTTTCTGTT-GT---CTGAGAG AAAA GAAAGTGCCTTCCCTTTGGACTGTTT-CGGTTTGAG-

miR-520d TCTCAAGCTGTGAGTCTACAAAGG---GAAGCCCTTTCTGTT-GT---CT AAAA G AAAA GAAAGTGCCTTCTCTTTGGTGGGTTA-CGGTTTGAGA

miR-519d TCCCATGCTGTGACCCTCCAAAGG---GAAGCGCTTTCTGTTTGTCTCTTA--AACAAAGTGCCTTCCCTTTAGAGTGTTA-CCGTTTGGGA

miR-520c TCTCAGGCTGTGCTCCTCTAGAGG---GAAGCACTTTCTGTT-GT---CTGAAAAG AAAA GAAAGTGCCTTCCCTTTAGAGGGTTA-CCGTTTGAGA

miR-515-1 TCTCATGCAGTCATTCTCC AAAA G---AAAGCACTTTCTGTT-GT----CTGAA--AGCAGAGTGCCTTCTTTTGGAGCGTTA-CTGTTTGAGA

miR-516-3 TCTCATGATGTGACCATCTGGAGGTAAGAAGCACTTTGTGTT-TT---GTGAAAAG-----AAAGTGCCTTCCCTTCAGAGGGTTA-CTCCTTTGAGA

miR-519c TCTCAGCCTGTGACCCTCTAGAGG---GAAGCGCTTTCTGTT-GT---CTGAAAAG AAAA GAAAGTGCATCTTTTTCAGAGGATTA-CAGTTTGAGA

miR-512-1 TCTCAGTCTGTGGCACTCAGCCTT--GAGGGCACTTTCTGGT-----GCCAGAATGAAAGTGCCTGTATAGCTGAGGTCCAATGACTGAGG

miR-518c TCTCATGCTGTGACTCTCTGGAGG---GAAGCACTTTCTGTT-GT---CTGAAAAG AAAA CAAAGCGCTTCTCTTTAGAGTGTTA-CGGTTTGAGA

miR-526a-1 -CTCAGGCTGTGACCCTCTAGAGG---GAAGCACTTTCTGTT-GC---TGAAAAGAAAAGAAAAGCGCTTCCCTTTAGAGGATTA-CTCCTTTGAG-

miR-517a TCTCAGGCAGTGACCCTCTAGATG---GAAGCACTGTCTGTT-GT---AT AAAA G AAAA GATCGTGCATCCCTTTAGAGTGTTA-CTGTTTGAGA

Supplementary Table 4. C19MC miRNAs contain a negative strand Pol-III terminator.

C19MC pre-miRNAs were aligned using Clustal-W and all negative strand Pol-III terminators “AAA” highlighted in red.

Sequences are 5’ to 3’ with respect to the positive strand.