

Primers for PCR amplification and sequencing

In order to allow easy sequencing using the standard sequencing primer pair M13, the *rbcl* and *matK* PCR amplification primers have been designed to include the DNA sequence of the M13 sequencing primers (M13 tail, shown in blue) 5' of the barcode primer sequence (shown in orange).

rbcl primers* (working stock: 10 µM):

Forward: Plant_Fwd_rbcLaf-M13 **TGTA AACGACGGCCAGT**ATGTCACCACAAACAGAGACTAAAGC

Reverse: Plant_Rev_rbcLa-M13 **CAGGAAACAGCTATGAC**GTAAAATCAAGTCCACCRCG

matK primers (working stock: 10 µM):

Forward: matK-1RKIM Fwd-M13 **TGTA AACGACGGCCAGT**ACCCAGTCCATCTGGAAATCTTGTTTC

Reverse: matK-3FKIM Rev-M13 **CAGGAAACAGCTATGAC**CGTACAGTACTTTTGTGTTTACGAG

The following M13 sequencing primers can be used to sequence the *rbcl* and *matK* sequences which have been amplified via the PCR primers above:

Forward M13 sequencing primer: **TGTA AACGACGGCCAGT**

Reverse M13 sequencing primers: **CAGGAAACAGCTATGAC**

The schematic below illustrates how PCR primers with an M13 tail can be used to obtain PCR products and subsequently DNA sequencing products of plant barcodes.



Schematic representation of PCR amplification and DNA sequencing of a fictitious plant barcode using PCR primers with M13 tail.

* The reverse *rbcl* primer is a degenerate primer in which the „R“ represents any purine (i.e. either adenine or guanine).