**Supplementary Table 3**. List of primers used in this work. Note indicates the experiments in which primers were used.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Primer name** | **Sequence 5’-3’** | **Annealing temperature** | **Amplicon lenght** | **Note** |
| Guide1 | attGATCGGACGGATGAAACCAGgttt | -- | -- | Domestication of single guide. Lowercase indicate GoldenBraid adapters. |
| Guide 2 | attGTAAGGGCCTGTCTAGATACTgttt |
| seq\_Fw | CATCAGAGCAGCCGATTGTCT  | 58°C | 1220 bp | Validation of the assembly of genome editing vector |
| \_seq\_Rev | TATCGTCACCTTCTCCGTCG |
| nptII\_Fw | CTTCAGCAATATCACGGGTAGC | 57°C | 392 bp | Detection of the presence of *nptII* selectable marker gene in the plant |
| nptII\_Rev | GGATCTCCTGTCATCTCACCTT |
| Cas9\_Fw | GCATGAACACCAAGTACGATGA | 57°C | 275 bp | Detection of the presence of *Cas9*  |
| Cas9\_Rev | TATTTCCTGCTCAGACTTTGCG |
| del\_Fw | CGGTACCTGAATTCTTAGACTTTG | 55°C | 380 bp | Validation of the presence of large deletion among sgRNAs |
| del\_Rev | GTGCCAAACTTTAGCCTTATGAA |
| illumina\_Fw | tcgtcggcagcgtcagatgtgtataagagacagCGGTACCTGAATTCTTAGACTTTG | 55°C | 447 bp | Amplificon sequencing of edited plantlets of the *β-LCY2* containing both sgRNAs. Lowercase indicate Illumina adapters. |
| illumina\_Rev | gtctcgtgggctcggagatgtgtataagagacagGTGCCAAACTTTAGCCTTATGAA |
| inv\_Fw | CCTTCACCTCTTTCTACGTGGCC | -- | -- | Validation of the potential inversion occurred in edited plantlets. Each primer was used in combination with del\_Fw and del\_Rev. |
| inv\_Rev | ACCATGACGCGATGAGACTTG |