

## Supplementary Information

(a)

*GGAGTGATCAAAAGTCCCACATCGATCAGGTGATATATAGCAGCTTAGTTATATAA  
TGATAGAGTCGACATAGCGATTGACCTGATCGAGTAACTACT**G**gttttagagctagaaatag  
caagtaaaataaggctagtccgttatcaactgaaaaagtggcaccgagtcggtgctttttttGCAAAATTTT  
CCAG*

(b)

*AGGCTACGAAATAATCCCACATCGGAAACCTCTGTCTACAAGGACTTCTTATATAC  
AATTGACTCCCATCTAAGCTTGACCTGATCGAGTAACTACT**G**gttttagagctagaaatagca  
agtaaaataaggctagtccgttatcaactgaaaaagtggcaccgagtcggtgctttttttGCAATTTTTGC  
AA*

**Table S1.** Sequences of guide RNA constructs.

(a) *AtPDS74* incorporating *Arabidopsis U6-26* promoter consensus sequence and terminator sequence; (b) *FvPDS74* incorporating *F. vesca U6III* promoter sequence and terminator sequence, FvAssembly 1.1, LG4. Components are denoted as follows: promoter and terminator sequences are italicised; the target guide sequence ‘Fv74’ is in bold font; the scaffold sequence is in lower case font; an additional guanine base preceding the guide sequence is underlined.