

Supplementary Figures:

An R2R3-MYB transcriptional factor *LuMYB314* associated with the loss of petal pigmentation in flax (*Linum usitatissimum* L.)

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CDC Bethune	ATGGAATTAGAAGCAGGGTTACGGAGAGGAACATGGGGTGAAGAGGAGGATAGGCTGCTCCGGAGGTGCATTCACACTTA	80
Tammes Type 12	ATGGAATTAGAAGCAGGGTTACGGAGAGGAACATGGGGTGAAGAGGAGGATAGGCTGCTCCGGAGGTGCATTCACACTTA	80
CDC Bethune	TGGAGAAGGAAGATGGCATCTCGTTCGCCGCCGAGCAGGATTGAATAGATGCAGGAAAAGTTGTAGACTGAGGTGGCTGA	160
Tammes Type 12	TGGAGAAGGAAGATGGCATCTCGTTCGCCGCCGAGCAGGATTGAATAGATGCAGGAAAAGTTGTAGACTGAGGTGGCTGA	160
CDC Bethune	ATTACTTGAAGCCAAACATCAAAGAGGAGAGTTTGAAGGAGCTGAAGTTGATCTACTCATTAGGTTGCACAAGCTTTTG	240
Tammes Type 12	ATTACTTGAAGCCAAACATCAAAGAGGAGAGTTTGAAGGAGCTGAAGTTGATCTACTCATTAGGTTGCACAAGCTTTTG	240
CDC Bethune	GGTAACAGATGGTCGCTAATCGCCGGCGTTTCCCGGAAGGACGGCCAACGACGTGAAAACTATTGGAACACCCACCA	320
Tammes Type 12	GGTAACAGATGGTCGCTAATCGCCGGCGTTTCCCGGAAGGACGGCCAACGACGTGAAAACTATTGGAACACCCACCA	320
CDC Bethune	CAGGGAGAAGGAGAAGAAGAACTAACCACCATCACGACGTCGTCCTCCATGCCTGCGGCTGCGTTGACTTTCCATGCA	400
Tammes Type 12	CAGGGAGAAGGAGAAGAAGAACTAACCACCATCACGACGTCGTCCTCCATGCCTGCGGCTGCGTTGACTTTCCATGCA	400
CDC Bethune	AAAGACAGCGACATTGTACGGAACCACCGGTGGTTCATCGTGGAAAAAGGAAAGATAACAAAGACCAACATCATAAGACCG	480
Tammes Type 12	AAAGACAGCGACATTGTACGGAACCACCGGTGGTTCATCGTGGAAAAAGGAAAGATAACAAAGACCAACATCATAAGACCG	480
CDC Bethune	AGGCCTGTGGGCTTGCCCAAAGGATTCTGTTGGCGGGCCGAAACAAATAAGCAGGCCAGAGCCGATGTGTTGCTGCTGG	560
Tammes Type 12	AGGCCTGTGGGCTTGCCCAAAGGATTCTGTTGGCGGGCCGAAACAAATAAGCAGGCCAGAGCCGATGTGTTGCTGCTGG	560
CDC Bethune	TGATATTAACGGCGCGGAAGTAGTACCGTTTGGGCACAAGAAGTGAAGAGGTTTTTGGAGGATGACGTGGATAAATTCC	640
Tammes Type 12	TGATATTAACGGCGCGGAAGTAGTACCGTTTGGGCACAAGAAGTGAAGAGGTTTTTGGAGGATGACGTGGATAAATTCC	640
CDC Bethune	CAGCAGCCACCTGCAACAAAATGACAGAACATGAT AATAGTAGTTGTAGT AATGATGAGATTATGAAGTTGGGTGTCGAG	720
Tammes Type 12	CAGCAGCCACCTGCAACAAAATGACAGAACATGAT AATAGTAGTTGTAGT AATGATGAGATTATGAAGTTGGGTGTCGAG	720
CDC Bethune	GGTTTGACGATGTTTGACCGTCAGGAGGAAGGCAATCATCAAAGTTGTTGGGGGGATGATGATGTAAGCATTGGGAGCT	800
Tammes Type 12	GGTTTGACGATGTTTGACCGTCAGGAGGAAGGCAATCATCAAAGTTGTTGGGGGGATGATGATGTAAGCATTGGGAGCT	800
CDC Bethune	CCTTCAGCGATCATCTTGA	819
Tammes Type 12	CCTTCAGCGATCATCTTGA	819

Figure S1. Comparison of CDS sequences of *LuMYB314* between CDC Bethune (reference genome) and Tammes Type 12.

CDC Bethune	MELEAGLRRGTWGEEEDRLLRRCI HTYGEGRWHL VP ARAGLNRCRKS CRLRWLNLYLKPNI KRGEFEGAEVDLLI RLHKLL	80
Tammes Type 12	MELEAGLRRGTWGEEEDRLLRRCI HTYGEGRWHL VP ARAGLNRCRKS CRLRWLNLYLKPNI KRGEFEGAEVDLLI RLHKLL	80
CDC Bethune	GNRWSLI AGRLPGRANDVKNYWNTHHREKEKKKLTITI TTSS SMPAAALTFPCKRQRHCTEPPVVI VEKGKI TKTNI I RP	160
Tammes Type 12	GNRWSLI AGRLPGRANDVKNYWNTHHREKEKKKLTITI TTSS SMPAAALTFPCKRQRHCTEPPVVI VEKGKI TKTNI I RP	160
CDC Bethune	RPVGLPKGFCWRAETNKQAQSRCVAAGDI NGGGSSTVWAQELKRFLEDDVDKFPAAATCNKMTEHDNSSCSNDEI MKLGVE	240
Tammes Type 12	RPVGLPKGFCWRAETNKQAQSRCVAAGDI NGGGSSTVWAQELKRFLEDDVDKFPAAATCNKMTEHDNSSCSNDEI MKLGVE	240
CDC Bethune	GLTMFDRQEEGNHQS CWGDDDDVSI WELLRSS	272
Tammes Type 12	GLTMFDRQEEGNHQS CWGDDDDVSI WELLRSS	272

Figure S2. Comparison of amino acid sequences of LuMYB314 between CDC Bethune (reference genome) and Tammes Type 12.

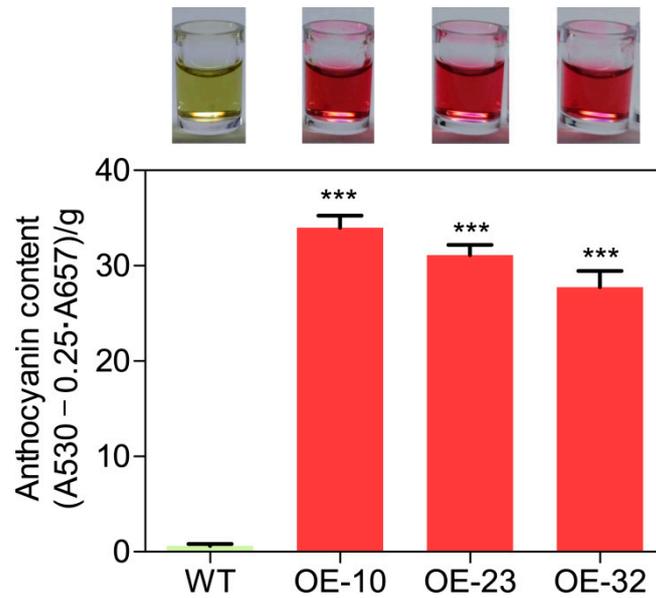


Figure S3. Total anthocyanin contents in *Arabidopsis* seedlings of WT and three independent *35S:LuMYB314^{Col-0}* transgenic lines. Asterisks indicate significant differences to the wild-type Col-0 (Student's *t*-test, ****P* < 0.001; values are means ± SD (*n* = 3)).