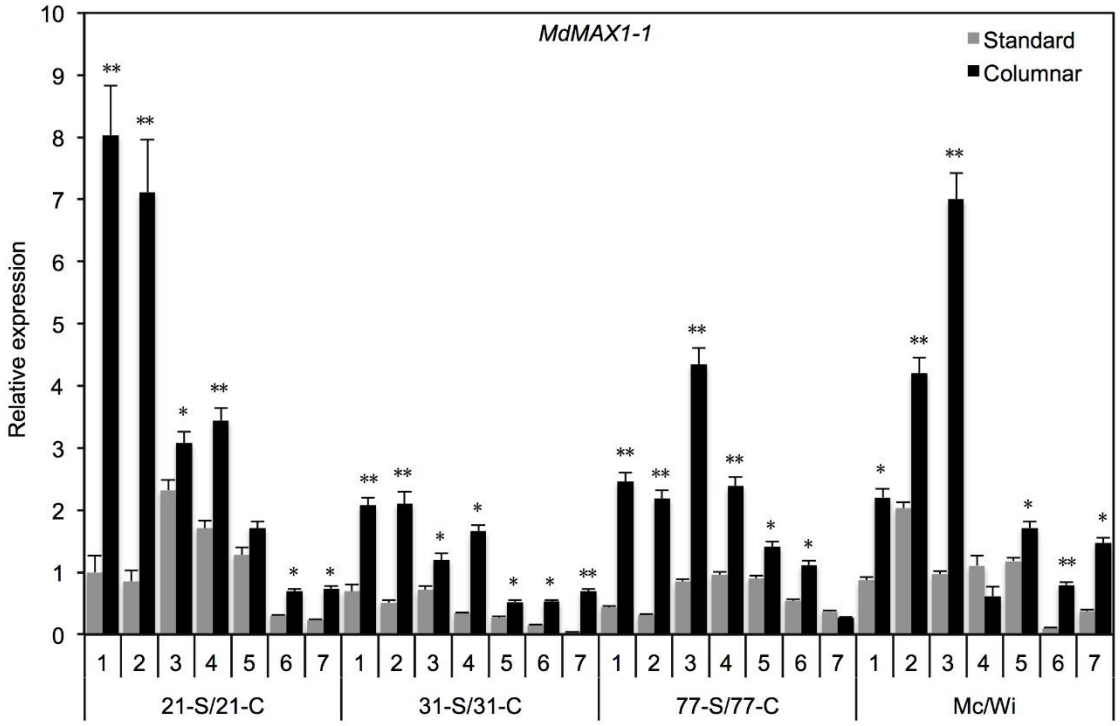
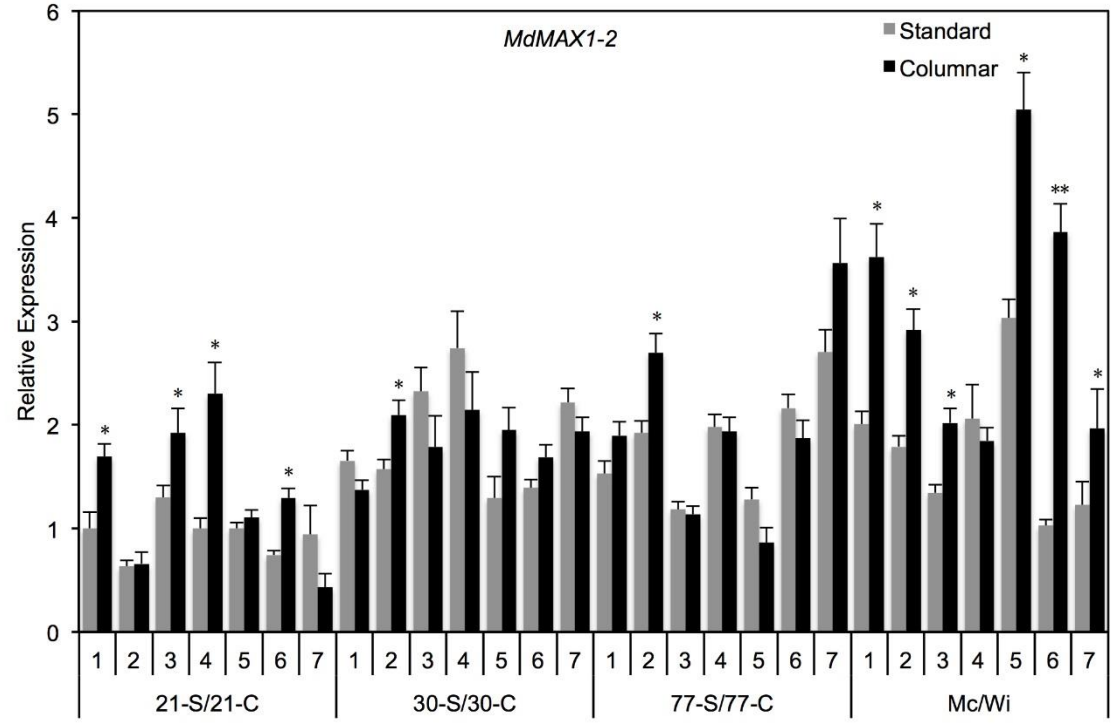
Table 1 Suppl. Primers used in the present study.

Gene names	Primer	Sequence 5'-3'
MdMAX1-1	sense primer	GATCAGCCACCACAGCATTC
	antisense primer	CCGGATGTTTCTCTCGCAAC
MdMAX1-2	sense primer	ATTGGGATTGTGGGTTGCTT
	antisense primer	GCCACCACAATCTCACCAAA
MdMAX1-3	sense primer	CCCTGACGCCCTTCAATTCA
	antisense primer	TATGCCGGGGAGAGTGAGAA
MdMAX1-4	sense primer	CTGCAATGGAACTCGTCACC
	antisense primer	GCCACGACAATGATTCCTCC
MdMAX1-5	sense primer	GCCTCCTCTCAAACCCTTCC
	antisense primer	GGCCATTACCTTCGAGCTGT
MdMAX2	sense primer	ATGGTGACGGCAATGGAAGT
	antisense primer	ATTCTCGCTGTGTGGGTCTG
MdMAX3-1	sense primer	GACTGACAGGTGGCGATTCA
	antisense primer	TCCACTCTCTGTCCCCGAAT
MdMAX3-2	sense primer	GCTGCATCTAAATCTGTGCTCA
	antisense primer	GGCCCAGAAACCATGAAAACC
MdMAX4-1	sense primer	AGAAATGGTCCAGGGCTGTG
	antisense primer	AATTGGCTGGCTTAGGGACC
MdMAX4-2	sense primer	CAGCTGGGGTCCACAATGAT
	antisense primer	TCTCCGAGCTTGAACACGAC
MdMAX4-3	sense primer	CACTAAACGAGCCACCCCAT
	antisense primer	CAGTACGTGCTCTGCTGACA
MdD14-1	sense primer	GCTTCCCCGAGGTTTCTGAA
	antisense primer	CTGAATTCTCGGACCGCTGT
MdD14-2	sense primer	ACATGGACTCAGTGGCGATC
	antisense primer	CTTGCCACCGAGATTCTGGT
MdD14-3	sense primer	CAACTTCGCCACACTTGCTG
	antisense primer	CTGACGATGGTGCATGGAGT
MdD14-4	sense primer	ACCGCACAGTTTGGCATTTC
	antisense primer	AGAAGCGATGCATCCAACCA
MdD14-5	sense primer	CCGACAATGGCTATTCTGGC
	antisense primer	GGACATACGGAGGGAGATGG
MdD27-1	sense primer	GGGTACGAAAGCTTGGTGGA
	antisense primer	TGCGAAGTATTCCCTGGCAA
MdD27-2	sense primer	GGCGTGGTGGGAATATGACT
	antisense primer	TGAACTCAGCTGCCCACTTT
MdD27-3	sense primer	ATCTCAGCTGCTCCGAAACC
	antisense primer	GCCGATTCGCCACATCAAT
MdD53-1	sense primer	AGACAAGGCTGATGTGGTGA
	antisense primer	CTCGGAATAGTGGGAGGGTC
MdD53-2	sense primer	GGGGAGGGATCTTGCTCAAA
	antisense primer	GTCCGTCAAGCATTGCCTC
MdD53-3	sense primer	CAGCGGTCAGATAGTTTGCC
	antisense primer	GAGGCCCTGCTTGATAAACG
MdD53-4	sense primer	TGTTTATGGGCCTGGACAGT
	antisense primer	CCACCACTGTTTTACCACGG
MdActin	sense primer	CTGAACCCAAAGGCTAATCG
	antisense primer	ACTGGCGTAGAGGGAAAGAA
NbActin	sense primer	AGGAGAAGTTGGCTTACATTGC
	antisense primer	CCGATCATTGATGGTTGGAACA
NbMAX1	sense primer	CAAATACCCACTGCCAATGAT
	antisense primer	AACTCCAAGAGCCAACCAAAC
NbMAX3	sense primer	TGGCTACGATTGGCAAAGTG
	antisense primer	TGGCGAGAACCAGAAGAAGT
NbD53	sense primer	GCCAGCGTCTTCATCACATAC
	antisense primer	GCTTGGGAATCAGAATCACCT


MdMAX1-1
Standard
Columnar
Relative expression
0
1
2
3
4
5
6
7
8
9
10
1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7
21-S/21-C
31-S/31-C
77-S/77-C
Mc/Wi


MdMAX1-2
Standard
Columnar
Relative Expression
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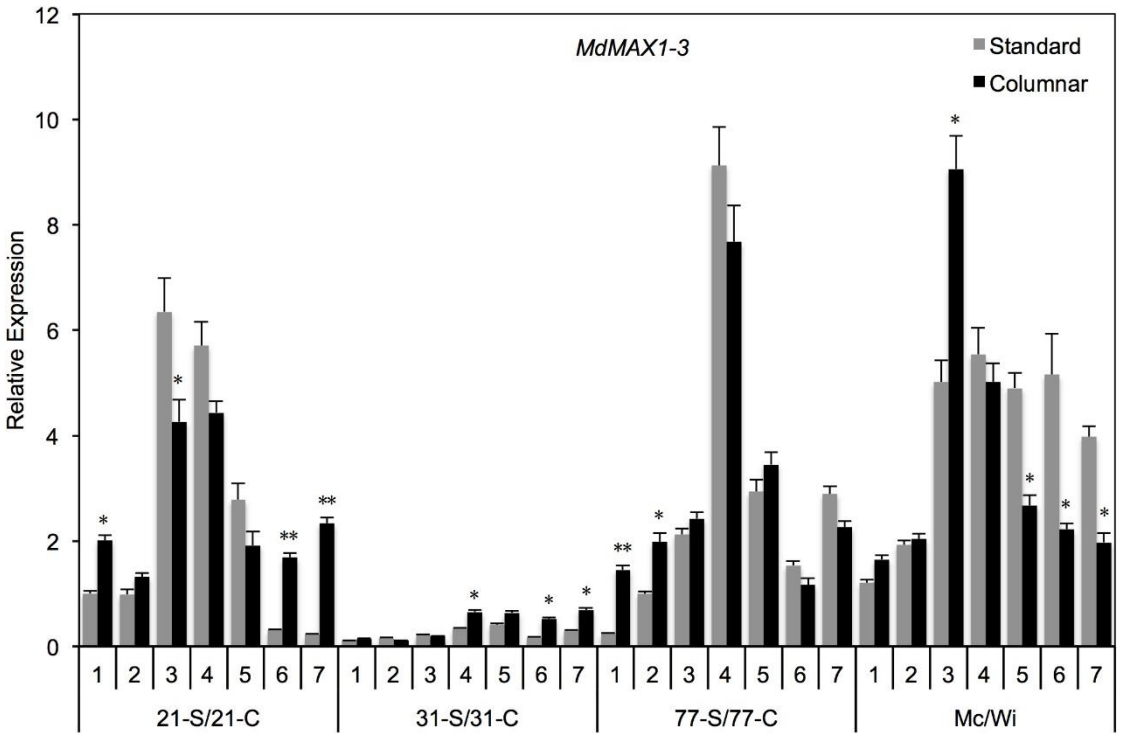
1
2
3
4
5
6
1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7
21-S/21-C
30-S/30-C
77-S/77-C
Mc/Wi


MdMAX1-3
Standard
Columnar
Relative Expression
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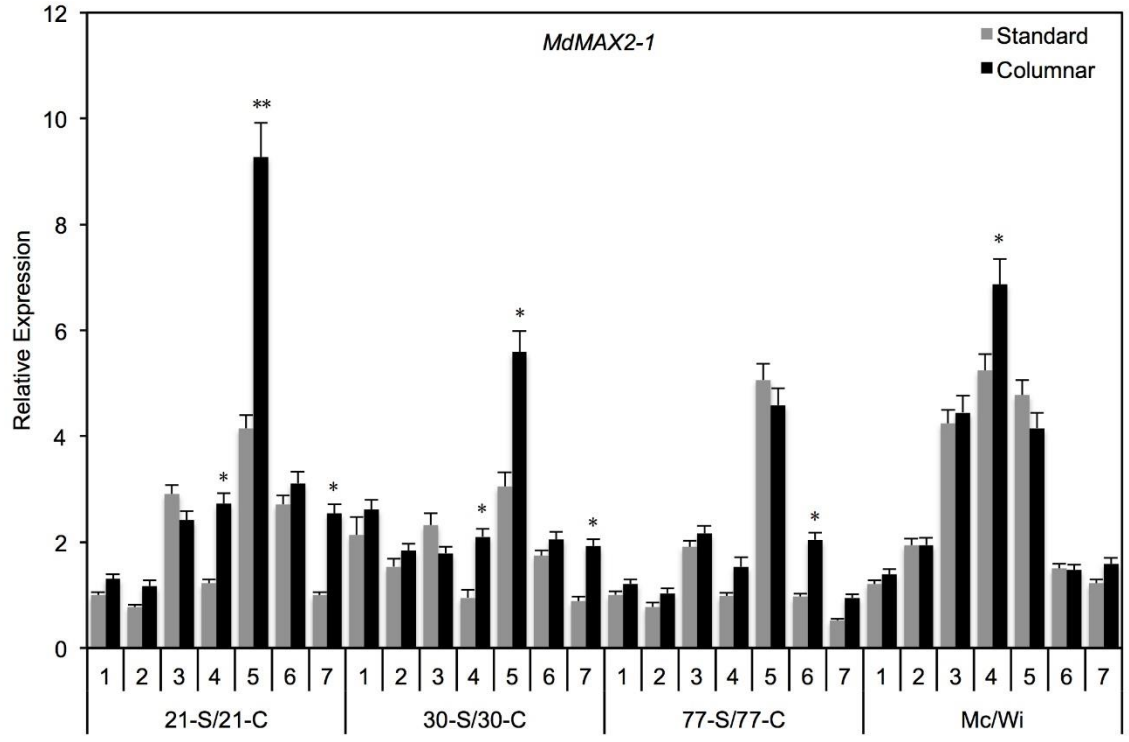
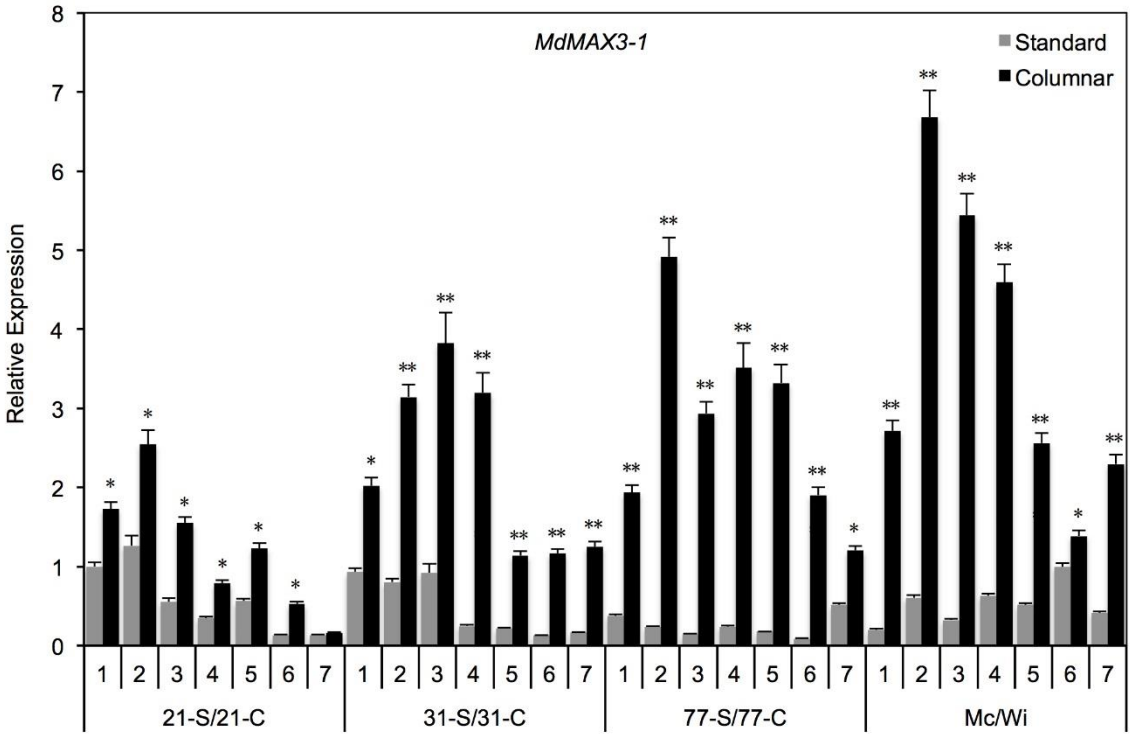
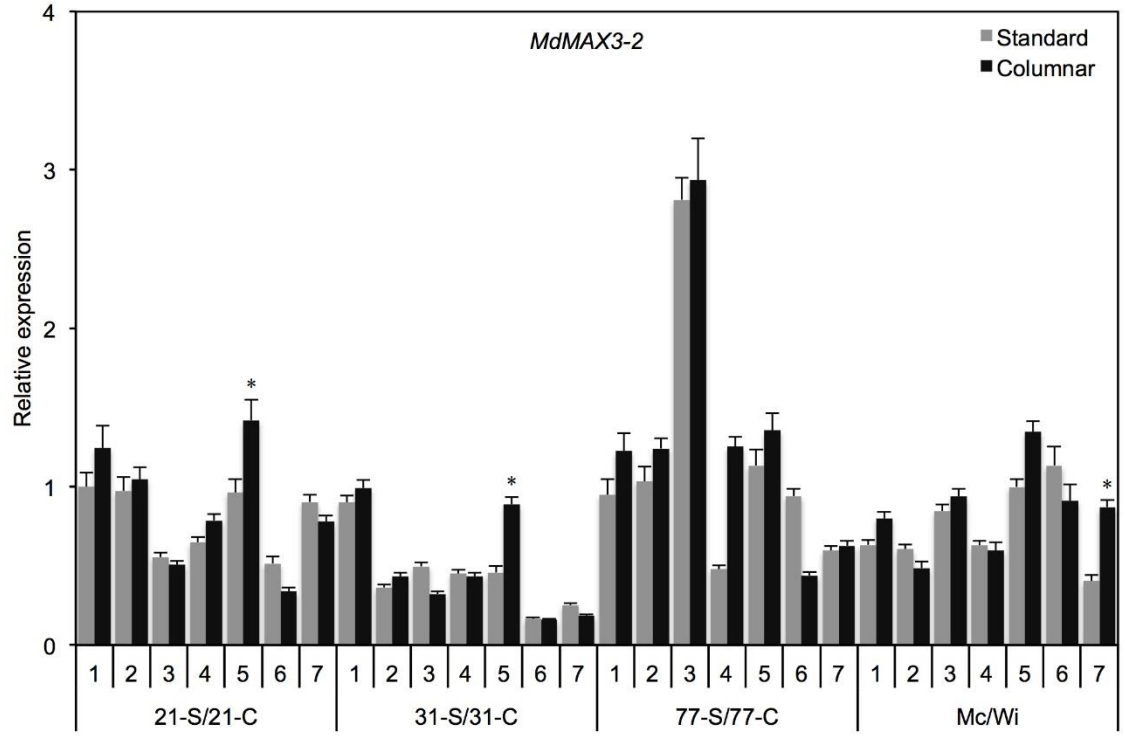
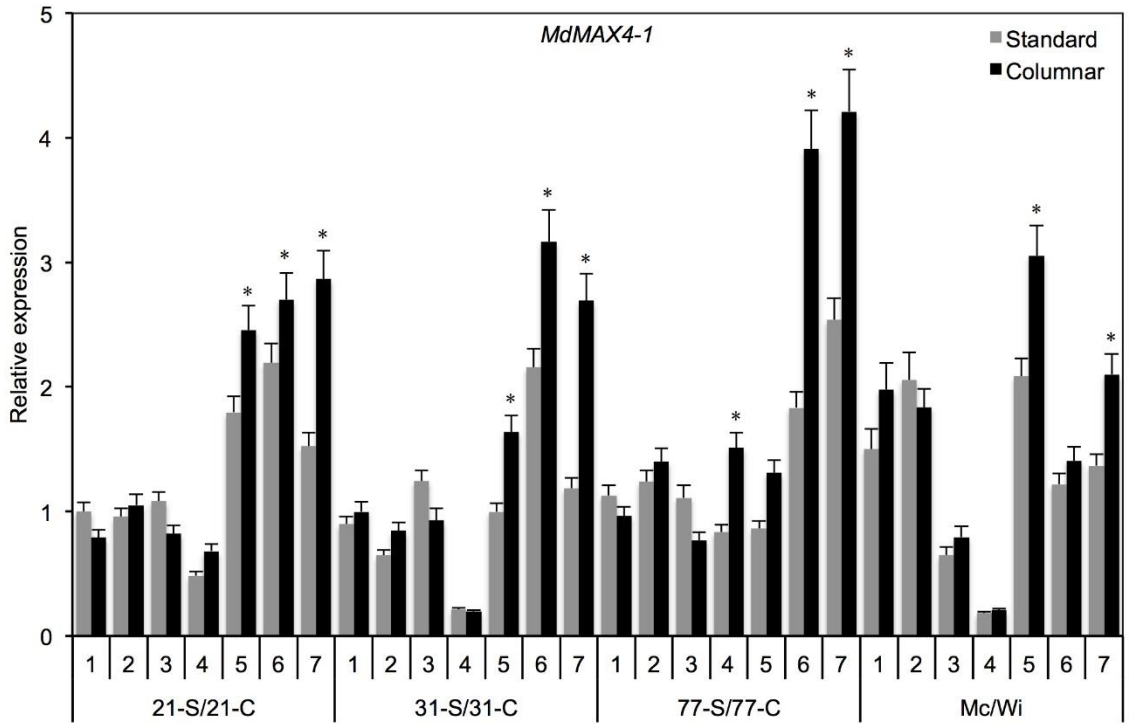
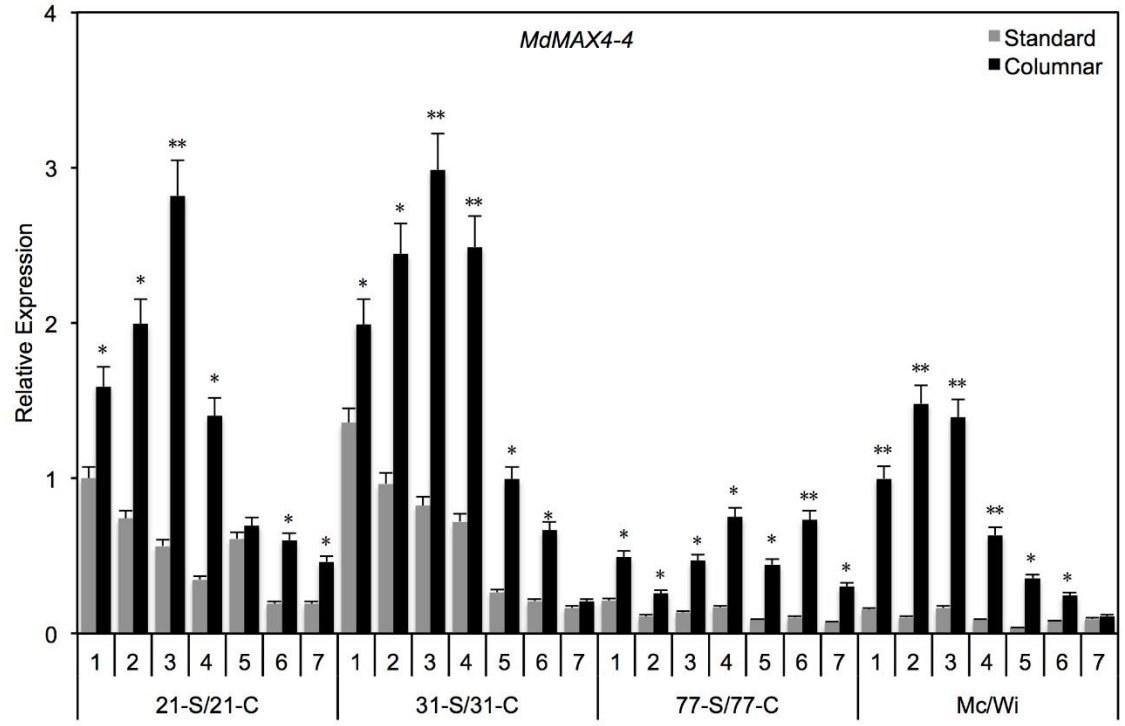
2
4
6
8
10
12
1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7
21-S/21-C
31-S/31-C
77-S/77-C
Mc/Wi

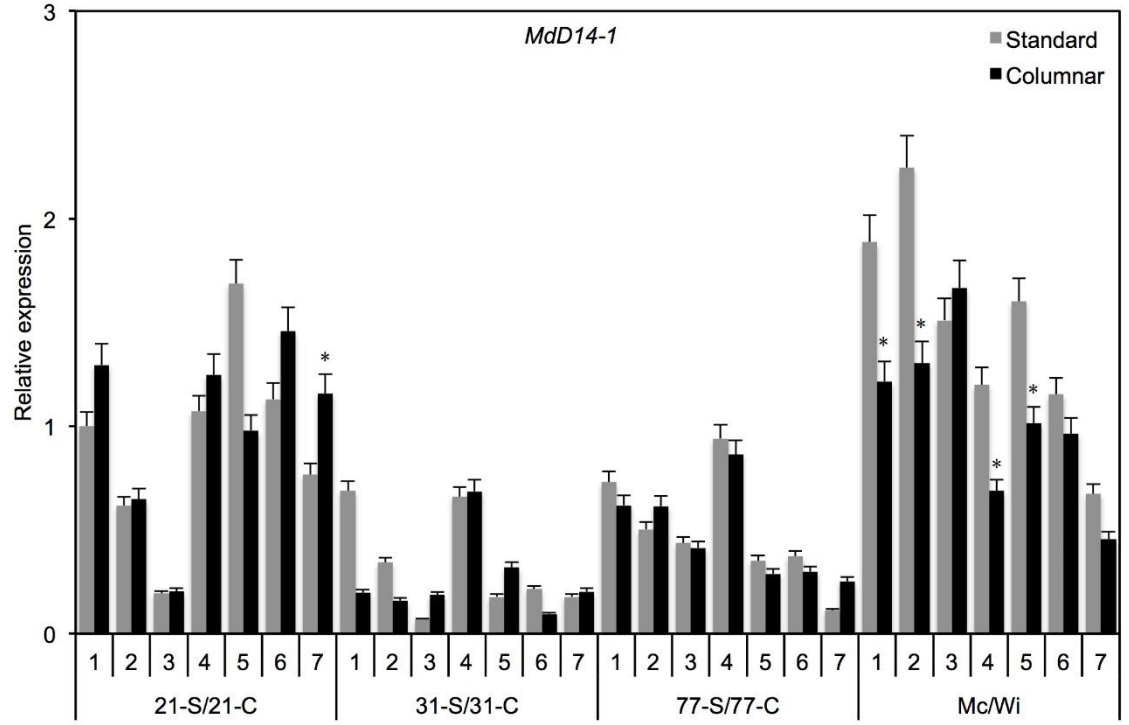

MdMAX2-1
Standard
Columnar
Relative Expression
0
2
4
6
8
10
12
1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7
21-S/21-C
30-S/30-C
77-S/77-C
Mc/Wi

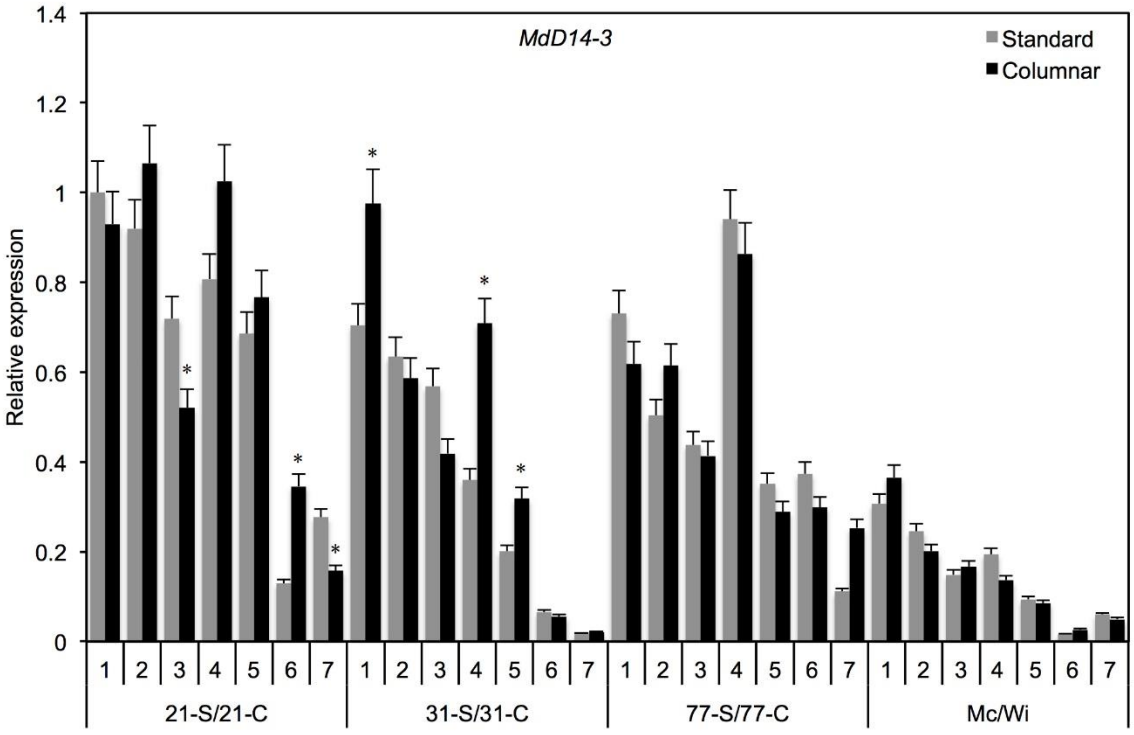

MdMAX3-1
Standard
Columnar
Relative Expression
0
1
2
3
4
5
6
7
8
1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7
21-S/21-C
31-S/31-C
77-S/77-C
Mc/Wi

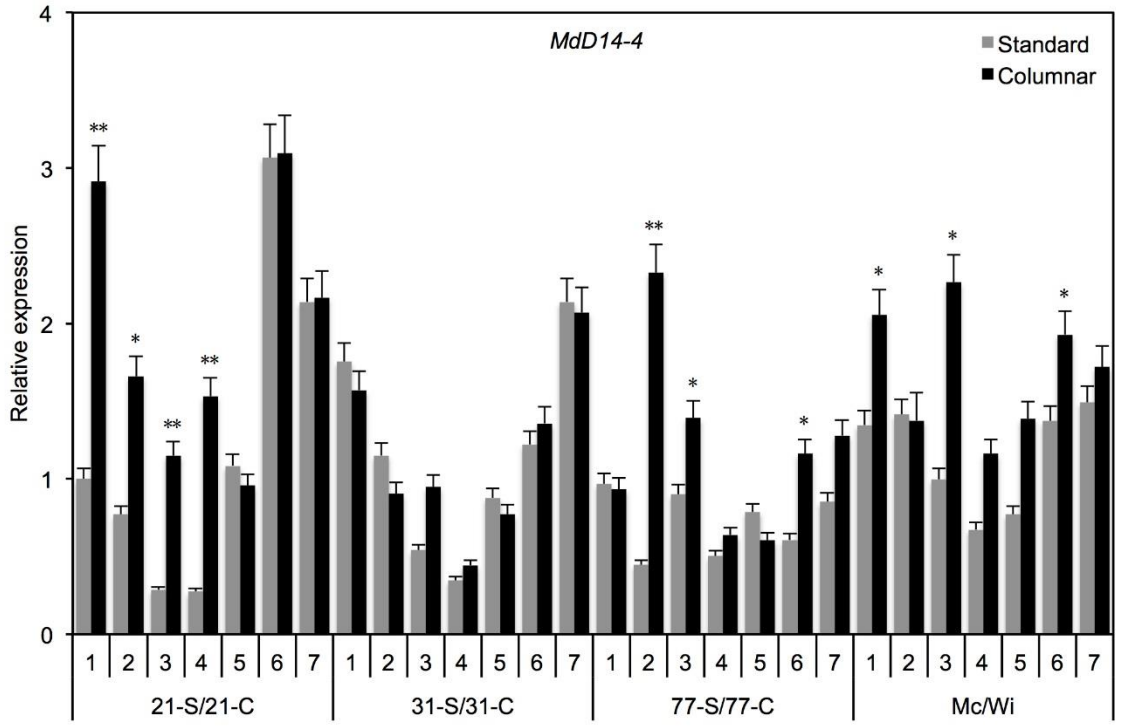

MdMAX3-2
Standard
Columnar
Relative expression
0
1
2
3
4
1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7
21-S/21-C
31-S/31-C
77-S/77-C
Mc/Wi

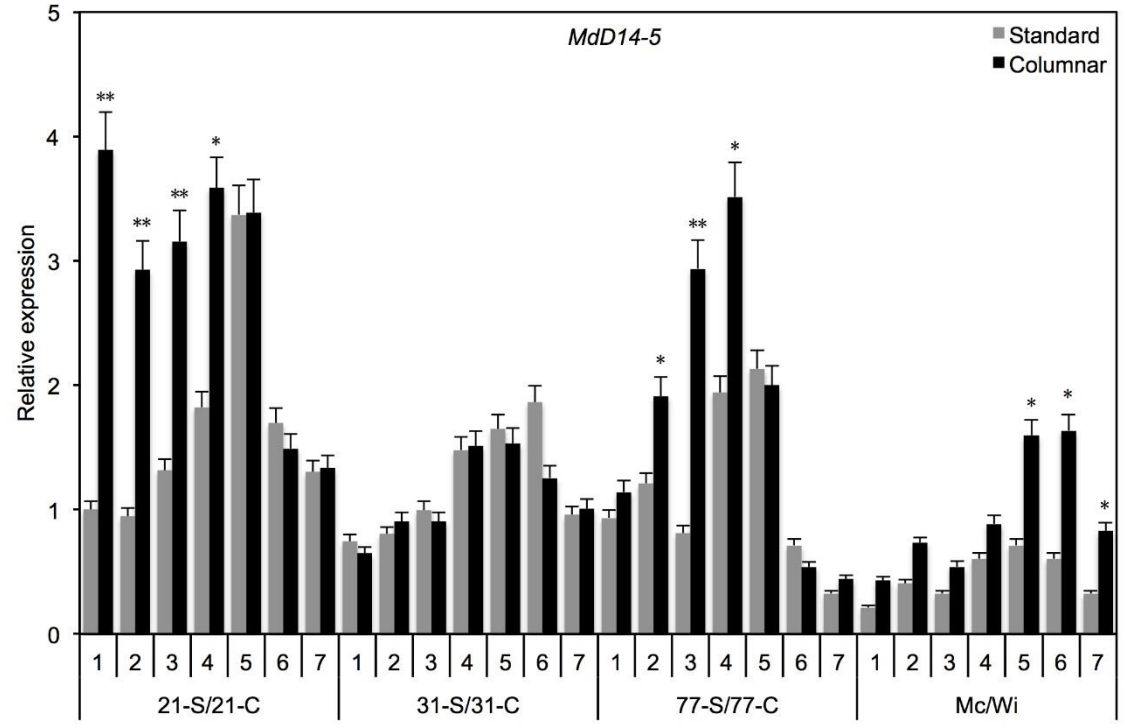

MdMAX4-1
Standard
Columnar
Relative expression
0
1
2
3
4
5
1 2 3 4 5 6 7
21-S/21-C
31-S/31-C
77-S/77-C
Mc/Wi

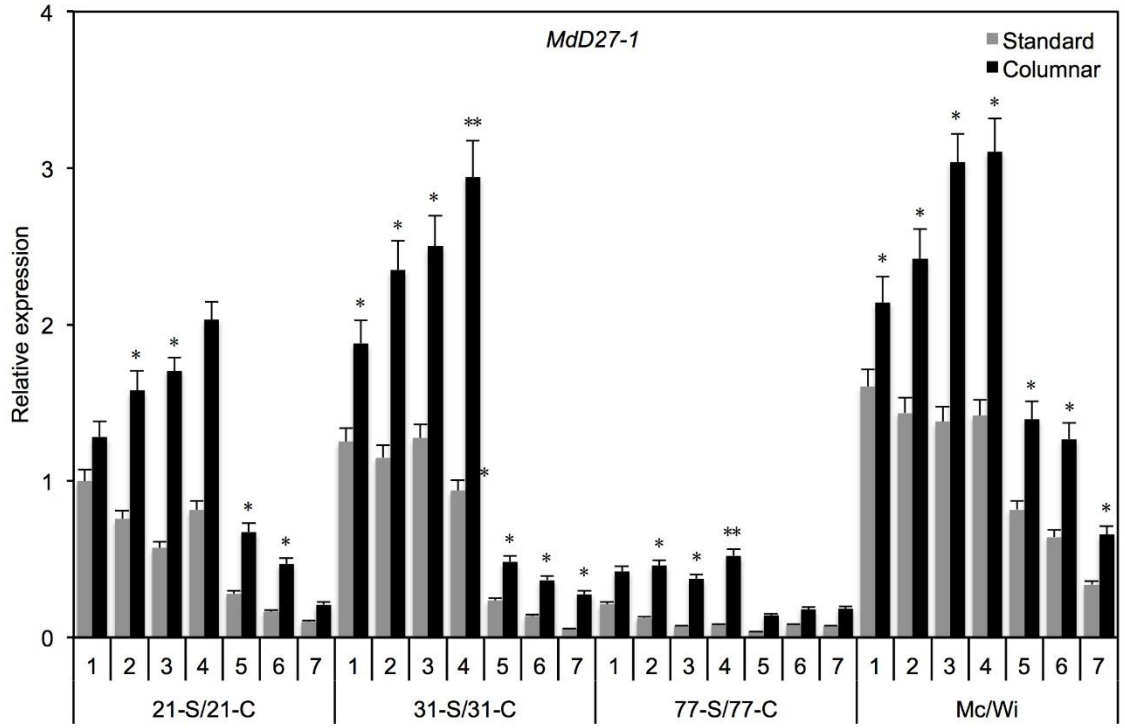

MdMAX4-4
Standard
Columnar
Relative Expression
0
1
2
3
4
1 2 3 4 5 6 7
21-S/21-C
31-S/31-C
77-S/77-C
Mc/Wi

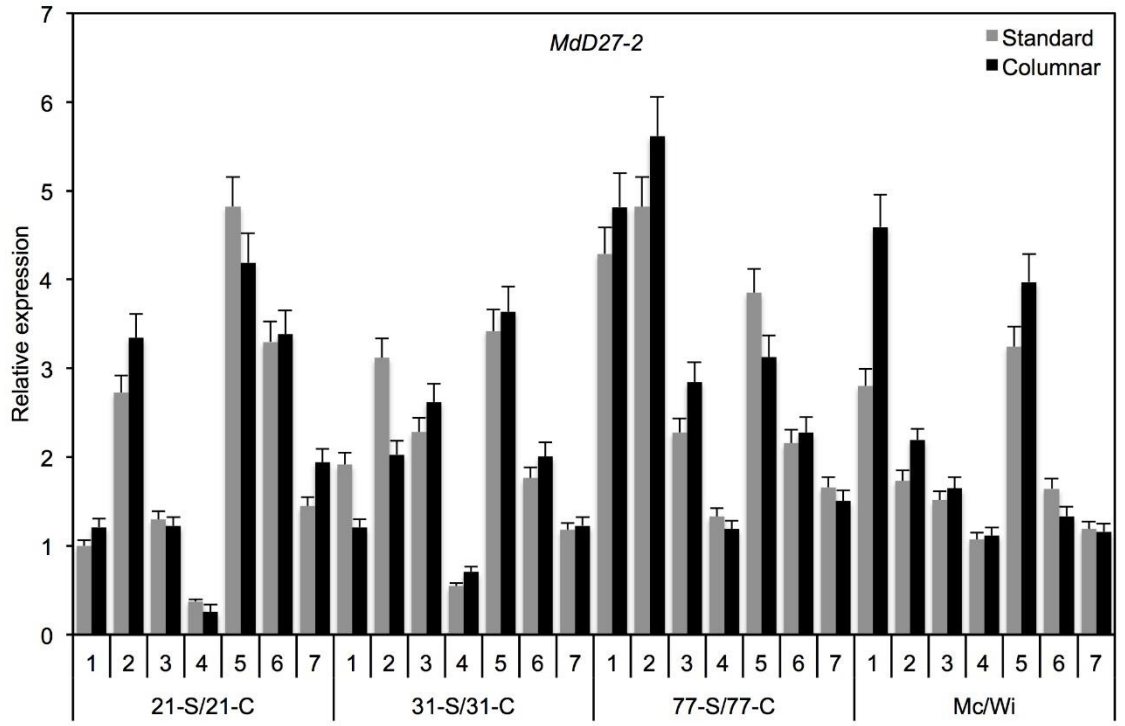

MdD14-1
Standard
Columnar
Relative expression
3
2
1
0
1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7
21-S/21-C
31-S/31-C
77-S/77-C
Mc/Wi

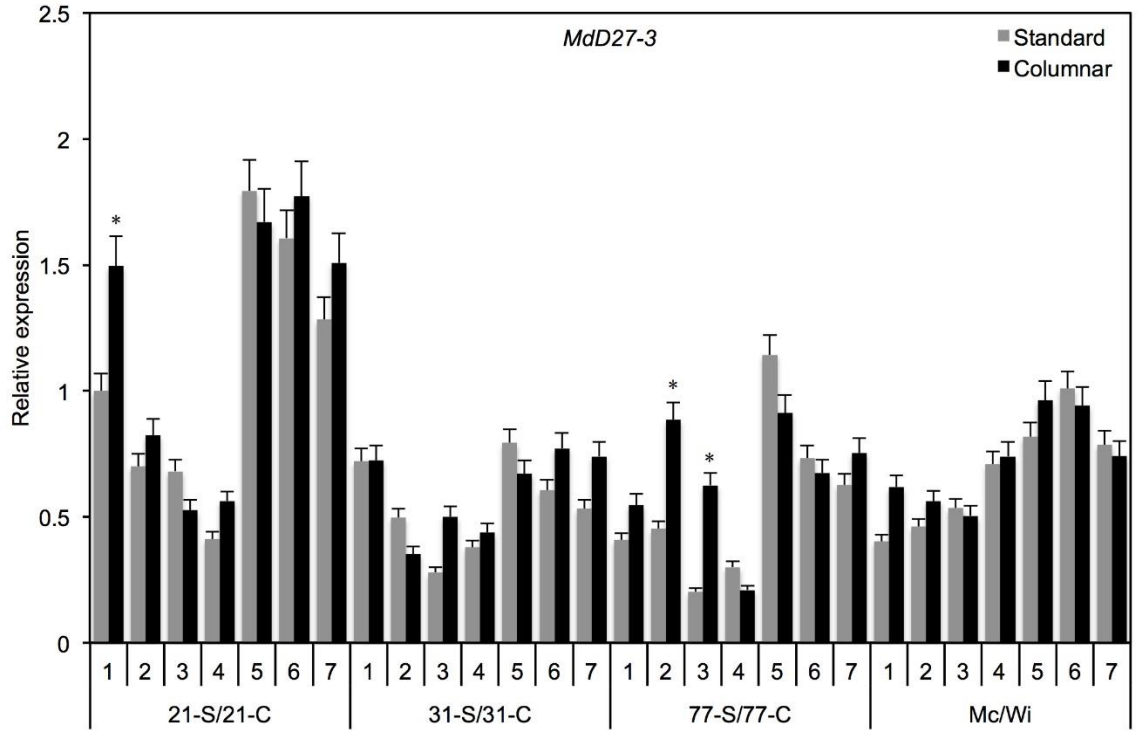

MdD14-3
Standard
Columnar
Relative expression
1.4
1.2
1
0.8
0.6
0.4
0.2
0
1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7
21-S/21-C
31-S/31-C
77-S/77-C
Mc/Wi

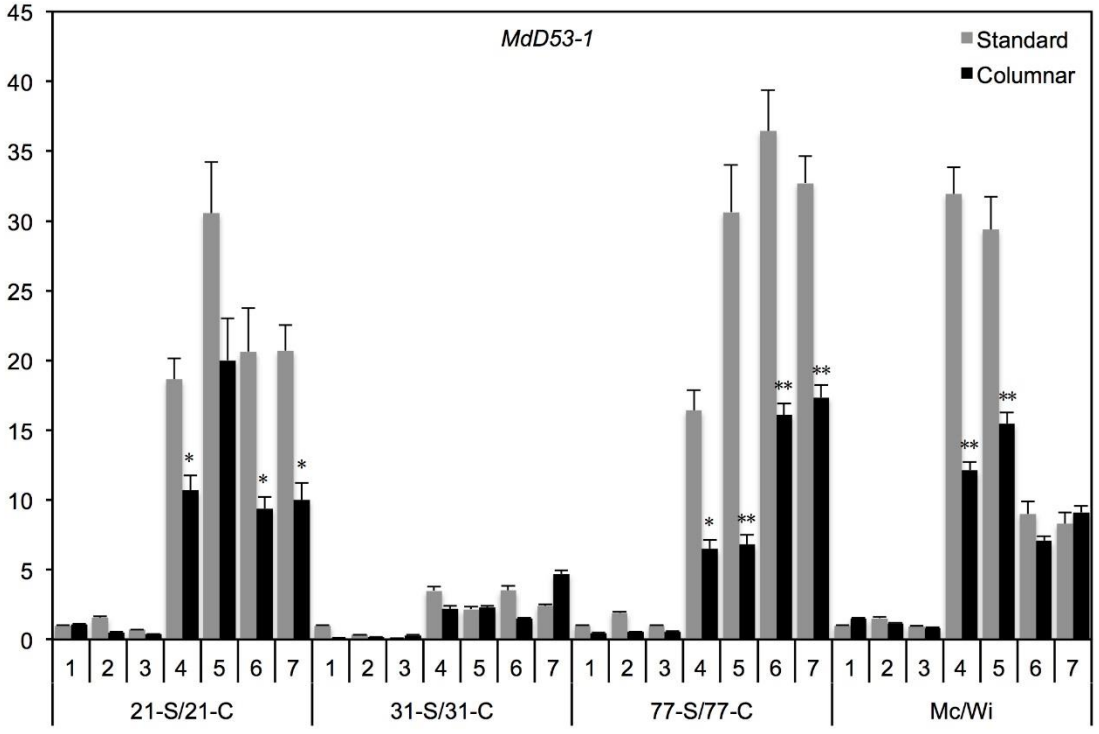

MdD14-4
Standard
Columnar
Relative expression
0
1
2
3
4
1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7
21-S/21-C
31-S/31-C
77-S/77-C
Mc/Wi


MdD14-5
Standard
Columnar
Relative expression
0
1
2
3
4
5
1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7
21-S/21-C
31-S/31-C
77-S/77-C
Mc/Wi


MdD27-1
Standard
Columnar
Relative expression
0
1
2
3
4
1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7
21-S/21-C
31-S/31-C
77-S/77-C
Mc/Wi


MdD27-2
Standard
Columnar
Relative expression
0
1
2
3
4
5
6
7
1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7
21-S/21-C
31-S/31-C
77-S/77-C
Mc/Wi


MdD27-3
Standard
Columnar
Relative expression
2.5
2
1.5
1
0.5
0
1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7
21-S/21-C
31-S/31-C
77-S/77-C
Mc/Wi


MdD53-1
Standard
Columnar
45
40
35
30
25
20
15
10
5
0
1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7
21-S/21-C
31-S/31-C
77-S/77-C
Mc/Wi

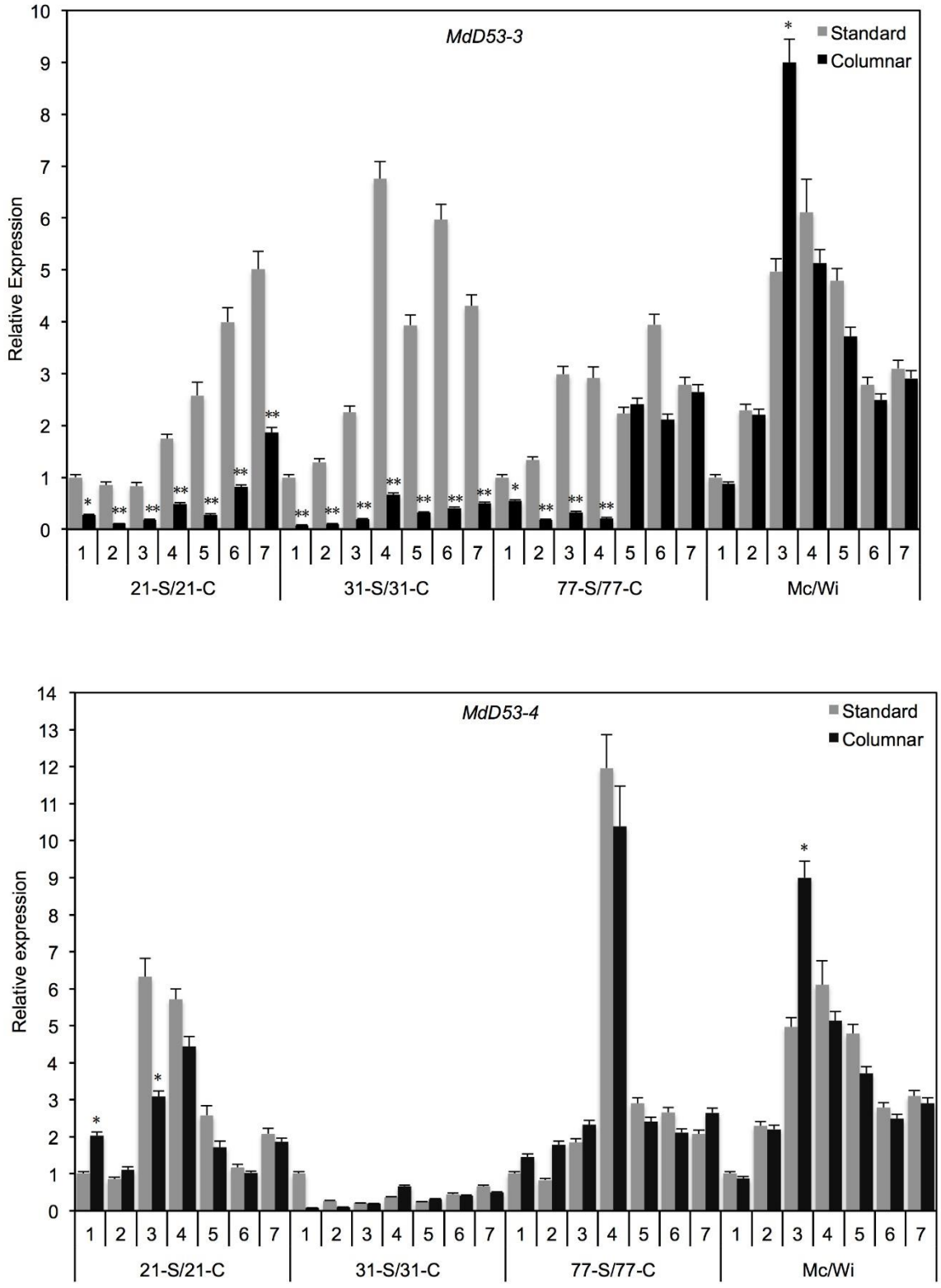


Fig. 1 Suppl. Expression analysis of genes related to biosynthesis of strigolalactones in standard (S) and columnar (C) apple genotypes 21, 31, and 77. Standard apple 'McIntosh' (Mc), columnar apple 'Wijcik' (Wi);0, 1-, 2-, 3-, 4-, 5-, 6-, 7-d-old buds, 30-d-old buds, 60-d-old buds, 30-d-old shoots, 60-d-old shoots, 90-d-old shoots, and 120-d-old shoots. Means ± SEs of three independent experiments with three replicates each. Differences among samples were analyzed by one-way *ANOVA* combined with the Duncan's multiple range test (* - $P < 0.01$; ** - $P < 0.001$).