

Table 1 Suppl. Bisulfite sequencing analysis of the *o2* and *O2* alleles

Sequence context	No2	Total cytosine analyzed	N+	Total cytosine analyzed
CG	1.7 %	120	4.1 %	120
CHG	1.4 %	143	0.0 %	130
CHH	4.4 %	344	3.2 %	313
ALL	3.1 %	607	2.7 %	563

No2 ACTCCTGGATC TCCTTCAAGCAGCTATAGCTAGCATAATTAACATCATGGGTGCATAGAGA
Ro2 ACTCCTGGATC TCCTTCAAGCAGCTATAGCTAGCATAATTAACATCATGGGTGCATAGAGA
N+ ACTCCTCGATC TCCTTCAAGCAGCT-----AACATAATTAACATCATGGGTGCATAGAGA
B73 ACTCCTCGATC TCCTTCAAGCAGCT-----AACATAATTAACATCATGGGTGCATAGAGA
***** ***** *

1

No2 TATGCCGCCGACGACCCA---TATCTATGGGTCCCTCCCCTTGCACTGCATCTTCTTCTT
Ro2 TATGCCGCCGACGACCCA---TATCTATGGGTCCCTCCCCTTGCACTGCATCTTCTTCTT
N+ TATGCCGCCGACGACCCATCATATCTATGGGTCCCTCCCCTTGCACTGCATCTCCTTC--
B73 TATGCCGCCGACGACCCATCATATCTATGGGTCCCTCCCCTTGCACTGCATCTCCTTC--

No2 CCTCCTCCTCGACCTCCTTCAATTATTCCTAGTGTTTGCTTCTCCCTTCCTTGACCTTTG
Ro2 CCTCCTCCTCGACCTCCTTCAATTATTCCTAGTGTTTGCTTCTCCCTTCCTTGACCTTTG
N+ -----AATTCCTAGTGTTTGCTTCTCCCTTCCTTGACCTTTG
B73 -----AATTCCTAGTGTTTGCTTCTCCCTTCCTTGACCTTTG
: *****

2

No2 CTTGGAACCATTGATAG---TTACTT---ATTGGGCATGGAGCACGTCATCTCAATGGA
Ro2 CTTGGAACCATTGATAG---TTACTT---ATTGGGCATGGAGCACGTCATCTCAATGGA
N+ CTTGGAACCATTGATTGATAGTTACTTATTATTGGGCATGGAGCACGTCATCTCAATGGA
B73 CTTGGAACCATTGATTGATAGTTACTTATTATTGGGCATGGAGCACGTCATCTCAATGGA
*****:.*:.* *

No2 GGAGATCCTCGGGCCCTTCTGGGAGCTGCTGCCAGCGCCAGCGCCAGAGCCAGAG-----
Ro2 GGAGATCCTCGGGCCCTTCTGGGAGCTGCTGCCAGCGCCAGCGCCAGAGCCAGAG-----
N+ GGAGATCCTCGGGCCCTTCTGGGAGCTGCTACCACCGCCAGCGCCAGAGCCAGAGCCAGA
B73 GGAGATCCTCGGGCCCTTCTGGGAGCTGCTACCACCGCCAGCGCCAGAGCCAGAG-----

No2 -----CCGGAGCAGCCCCCGGTAACCGGCATCGTCGTCGGCAGTGTCATAGACGTTGC
Ro2 -----CCGGAGCAGCCCCCGGTAACCGGCATCGTCGTCGGCAGTGTCATAGACGTTGC
N+ GCCAGAGCGAGAGCAGCCTCCGGTAACCGGCATCGTCGTCGGCAGTGTCATAGACGTTGC
B73 -CCAGAGCGAGAGCAGCCTCCGGTAACCGGCATCGTCGTCGGCAGTGTCATAGACGTTGC
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No2 TGCTGCTGGTCACGGTGACGGGGAGGGTGGCGGCGACACGATGGATCAGCAGCACGCCAC
Ro2 TGCTGCTGGTCACGGTGACGGGGAGGGTGGCGGCGACACGATGGATCAGCAGCACGCCAC
N+ TGCTGCTGGTCA-----TGGTGACGGGGACATGATGGATCAGCAGCACGCCAC
B73 TGCTGCTGGTCACGGTCA-----TGGTGGCGGCGACATGATGGATCAGCAGCACGCCAC
***** *

No2 AGAGTGACCTTTGAGAGGTTACTGGAAGAGGAGGCTCTGACGACAAGCACACCGCCGCC
Ro2 AGAGTGACCTTTGAGAGGTTACTGGAAGAGGAGGCTCTGACGACAAGCACACCGCCGCC
N+ AGAGTGACCTTTGAGAGGTTACTAGAAGAGGAGGCTCTGACGACAAGCACACCGCCGCC
B73 AGAGTGACCTTTGAGAGGTTACTGGAAGAGGAGGCTCTGACGACAAGCACACCGCCGCC

No2 GGTGGTGGTGGTGCCGAACCTCTTGTGCTCAGCGCCCTAAATGTTGACCGGCCGCCGGT
Ro2 GGTGGTGGTGGTGCCGAACCTCTTGTGCTCAGCGCCCTAAATGTTGACCGGCCGCCGGT
N+ GGTGGTGGTGGTGCCGAACCTCTTGTGCTCAGCGCCCTAAATGCTGACCGGCCGCCGGT
B73 GGTGGTGGTGGTGCCGAACCTCTTGTGCTCAGCGCCCTAAATGTTGACCGGCCGCCGGT

No2 GATGGAAGAGGCGCAACGACGATGGCGCATGCGGCGGTGAGTAGTGCCGTAGTAGGTGA
Ro2 GATGGAAGAGGCGCAACGACGATGGCGCATGCGGCGGTGAGTAGTGCCGTAGTAGGTGA
N+ GATGGAAGAGGCGGTAA---CTATGGCGCCTGCGGCGGTGAGTAGTGCCGTAGTAGGTGA
B73 GATGGAAGAGGCGGTAA---TGATGGCGCCTGCGGCGGTGAGTAGTGCCGTAGTAGGGGA
***** *

No2 CCCCATGGAGTACAATGCCATACTGAGGAGGAAGCTGGAGGAGGACCTCGAGGCCTTCAA
Ro2 CCCCATGGAGTACAATGCCATACTGAGGAGGAAGCTGGAGGAGGACCTCGAGGCCTTCAA
N+ CCCCATGGAGTACAATGCCATACTGAGGAGGAAGCTGGAGGAGGACCTCGAGGCCTTCAA

B73 CCCCATTGGAGGTACCAATGCCATACTGAGGAGGAAGCTGGAGGAGGACCTCGAGGCCTTCAA

No2 AATGTGGAGGGTA--TACACTGCTCGCTCTTCTTTCCCTATCTTTATTATTCTCTCGCTAT
Ro2 AATGTGGAGGGTA--TACACTGCTCGCTCTTCTTTCCCTATCTTTATTATTCTCTCGCTAT
N+ AATGTGGAGGGTATATACACTGCTCGCTCTTCTTTCCCTATCTTTATTATTCCCTCGCTAT
B73 AATGTGGAGGGTATATACACTGCTCGCTCTTCTTTCCCTATCTTTATTATTCCCTCGCTAT

No2 ATCTTCGGCAACCT-----TATCTCTTATTTTGACTTCACTGTTATATAAAATAC
Ro2 ATCTTCGGCAACCT-----TATCTCTTATTTTGACTTCACTGTTATATAAAATAC
N+ ATCTTCGGCGGTTTACTCGTCTTTTATCTCTTAATTTACACTTCATTGTTGTATAAAATAG
B73 ATCTTCGGCGGTTTACTCGTCTTTTATCTCTTATTTTACACTTCATTGTTGTATAAAATAG
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No2 TACAAAACAGTGTTTTAC-ACGTCTGTACTATATTCTCTATAGGCTATAGTTGTAGTAG
Ro2 TACAAAACAGTGTTTTACAACGCTCTGTACTATATTCTCTATAGGCTATAGTTGTAGTAG
N+ TACAAAACAATGTTTTAC-ACGGCCTGTACTGTACTCTCTATGGGCTACAGGGTTGTAG
B73 TACAAAACAATGTTTTAC-ACGGCCTGTACTGTACTCTCTATGGGCTACAGGGTTGTAG
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No2 -----TGTGTCTTATTATTAGCTGGGGGTGTGTGCGCGCGCAATAACTGAAATCAG
Ro2 -----TGTGTCTTATTATTAGCTGGGGGTGTGTGCGCGCGCAATAACTGAAATCAG
N+o2 TAGTACGTGTGTCTTA--TTAACTGGGG-----TGCAATAACTGAAATCGG
B73 TAGTACGTGTGTCTTA--TTAACTGGGG-----TGCAATAACTGAAATCGG
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No2 CCCGTGCCTTT--TCTGACGTACTAAAGGCATGTTTGGTT-TATAGCTAACTATGTCT--
Ro2 CCCGTGCCTTTTCTTGACGTACTAAAGGCATGTTTGGGTTAATAGCTAACTATGGTCTT
N+ CCGGTGCCTTT--CCTGACGTACTAA-----
B73 CCGGTGCCTTT--TCTGACGTACTAA-----
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No2 -TACTTTGTCTAAGGTTAGTCGTTA--ATCTT-AGGCAGAAAAGTTAGGTAAAGTCTGAC
Ro2 TACTTTTGTCTAAGGGTAGTCCGTTAAATCTTAGGGCAGAAATA--GTAAAGTTTCAGAC
N+ -----
B73 -----

No2 AAATTAGGTAGCAAACTAAACAGACCATAAGTTTGTATCACCTACATCTAGTGTATCTAA
Ro2 AAATTAGGTAGCAAAATAAACAGACCATAAGTTTGTATCACATACATCTAGTGTATCTAA
N+ -----GTTTGTATCACCTACATCTAGTGCATCCAA
B73 -----GTTTGTATCACCTACATCTAGTGCATCCAA
*****.***** *** **

No2 --ACACCTTCTAAAAAGTGATGAGGGTAGGTAATCCATGATCTAGCTATAGAGATGTGGTG
Ro2 --ACACCTTCTAAAAAGTGATGAGGGTAGGTAATCCATGATCTAGCTATAGAGATGTGGTG
N+ ACACACCTTCTAAAAAGTGATGAGGGTAGGTAATCCACGATCTAGCTATAGAGATGTGGTG
B73 ACACACCTTCTAAAAAGTGATGAGGGTAGGTAATCCATGATCTAGCTATAGAGATGTGGTG

No2 TCGTTCGTTGAGATATGCGATGAGCTATATATGCCATGTTTGGCTATACAACTGCCAAA
Ro2 TCGTTCGTTGAGATATGTGATGAGCTATATATGCCATGTTTGGCTATACAACTGCCAAA
N+ TTC-TCGTT-----GA--ACTACATGCCATGTTTGGCTATACAACTGCCAAA
B73 TTC-TCGTT-----GA--GCTATATGCCATGTTTGGCTATACAACTGCCAAA
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No2 CAAGGATGCCATGCACATCACAGGTCAGTGTGCTTAGCTTGTACTGTATATATGTATATA
Ro2 CAAGGATGCCATGCACATCACAGGTCAGTGTGCTTAGCTTGTACTGTATATATGTATATA
N+ CAAGGATGCC----ACATCACAAGTCAGTGTGCTTAGCTTGTTCAGTAAAAAGGTAAAA-
B73 CAAGGATGCC----ACATCACAAGTCAGTGTGCTTAGCTTGTTCGTATATATGTATAT-
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No2 TAGCGCTAGCTAGCT-----

No2 TAGCGCTAG-----
Ro2 -AGCGCTAGCTAGTGCCACAAAGATATTGTGAAGTAAACATCATCTCAAAAAGTGCGGGT
N+ -AGCGCTAGCTAGTGTCACGAGATTTGT--GATGTTG-----GA
B73 *****

No2 -----
Ro2 -----
N+ AGTTGCACGCCAAATGGCACAGCGGCCAGGCTGCGGGACAGGTTCCGAGGAGGGGAGTAG
B73 T-----

No2 -----
Ro2 -----
N+ ACCCGCGACGGCAGGGCATCAGGGGAGGGGACCTGCGTAAATGCTAGGGGTGAGCAGAAG
B73 -----TTAGC----

No2 -----
Ro2 -----
N+ CGGGGCGAGGGGATACTACCCCGAAGCCTTCTCGCAAGGCATCGGAAGGTCGGTCTCTCC
B73 -----TTAC---TA-----

No2 -----
Ro2 -----
N+ GAGACTCCCTCGCGCAGTATTGGCATTGGTATTACAGGGGGTCCCAGGGCAGGGCACT
B73 -----GGTTTTA-----

No2 -----
Ro2 -----
N+ AACTCACCGCAGGCAGGCGACCATAGTTAAGGGCAGCTTCCATCACCGGCGAGCCGGTCG
B73 ----CACCACG-----A-

No2 -----
Ro2 -----
N+ GCATTGCGGGCGCCGGGGCGACAAGAGTTCGGCAGCCCCGCCGCTGGGGCCGCGGGGCTT
B73 -----GT

No2 -----
Ro2 -----
N+ CGTGGAAGCGCCGTAACCTGAATCCAACATCACAAAAACCTATAAGCTAAATACAAACT
B73 CATGTAAACCTAGTAAACTAAATCCAACATCACAAAAACCTAGTAAGCTAAATACAAACT

No2 -----AGGGGCACGAGAT
Ro2 -----CTAGCT-----AGGGGCACGAGAT
N+ AGCAATCCATTCTTAGCTTACTAGTTTTTTTTTCAAAAAAACTACGATAGCCACTCGAT
B73 AGCAATCCATTCTTAGCTTACTAGTTTTT-TTCAAAAAAACTACGATAGCCACTCGAT
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No2 TTGTGATGTTGGATTTTATTTGTTGAATTTTAAACTTGAAATTTTGGCATATATACCCA
Ro2 TTGTGATGTTGGATTTTATTTGTTGAATTTTAAACTTGAAATTTTGGCATATATACCCA
N+ CT---TTACAAACTTTTATTTGTTGAATTTTAAACTTGAAATTTTGGCATATATACCCA
B73 CT---TTACAAACTTTTATTTGTTGAATTTTAAACTTGAAATTTTGGCATATATACCCA
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No2 TCCACAGGCGGCCTCCTCCAGTGTTGTGACCTCAGA--ACGTTCTCAAGGCTCAAACAA
Ro2 TCCACAGGCGGCCTCCTCCAGTGTTGTGACCTCAGA--ACGTTCTCAAGGCTCAAACAA
N+ TCCACAGGCGGCCT---CCAGTGTTGTGACCTCAGATCAACGTTCTCAAGGCTCAAACAA
B73 TCCACAGGCGGCCT---CCAGTGTTGTGACCTCAGATCAACGTTCTCAAGGCTCAAACAA

No2 TCACACTGGAGGTACTATATCTACTATATATATGTGCCATTATTACATTGTTTACAGACG
Ro2 TCACACTGGAGGTACTATATCTACTATATATATGTGCCATTATTACATTGTTTACAGACG
N+ TCACACTGGAGGTACTATATCTACTATATATATGTGCCATTATTACATTGTTTACAGACG
B73 TCACACTGGAGGTACTATATCTACTATATATATGTGCCATTATTACATTGTTTACAGACG

No2 TGCTTTTGTATATAGATATATATCCTGACTCTCGATCTGGCTCACTTAGGTAGCAGCATC
Ro2 TGCTTTTGTATATAGATATATATCCTGACTCTCGATCTGGCTCACTTAGGTAGCAGCATC
N+ TGCTTTTGTATATAGATATATATCCTGACTCTCGATCTGGCTCACTTAGGTAGCAGCATC
B73 TGCTTTTGTATATAGATATATATCCTGACTCTCGATCTGGCTCACTTAGGTAGCAGCATC

No2 AGGAATAATCCAGTGCAGAACAAGCTGATGAACGGCGAAGATCCAATCAACAATAACCAC
Ro2 AGGAATAATCCAGTGCAGAACAAGCTGATGAACGGCGAAGATCCAATCAACAATAACCAC
N+ AGGAATAATCCAGTGCAGAACAAGCTGATGAACGGCGAAGATCCAATCAACAATAACCAC
B73 AGGAATAATCCAGTGCAGAACAAGCTGATGAACGGCGAAGATCCAATCAACAATAACCAC

No2 GCTCAAACCTGCAGGCGGCCTTGCGCTGAGGCTTGCTACTAGCTCTTCCTCGAGAGATCCT
Ro2 GCTCAAACCTGCAGGCGGCCTTGCTCGTGAAGCTTGCTACTAGCTCTTCCTCGAGAGATCCT
N+ GCTCAAACCTGCAG---GCCTTGCGCTGAGGCTTGCTACTAGCTCTTCCTCGAGAGATCCT
B73 GCTCAAACCGCAG---GCCTTGCGCTGAGGCTTGCTACTAGCTCTTCCTCGAGAGATCCT

No2 TCACCATCAGACGAAGACATGGACGGAGAAGTAGAGATTCTGGGGTTCAAGATGCCTACC
Ro2 TCACCATCAGACGAAGACATGGACGGAGAAGTAGAGATTCTGGGGTTCAAGATGCCTACC
N+ TCACCATCAGACGAAGACATGGACGGAGAAGTAGAGATTCTGGGGTTCAAGATGCCTACC
B73 TCACCATCAGACGAAGACATGGACGGAGAAGTAGAGATTCTGGGGTTCAAGATGCCTACC

No2 GAGGAAAAGAGTGAGGAAAAGGTAATTCC--GGTTGATTTCAGCTTATTAATTGTACGGT
Ro2 GAGGAAAAGAGTGAGGAAAAGGTAACCGCTTGATCGATTTCAGCTTATT---GTACGGT
N+ GAGGAAAAGAGTGAGGAAAAGGTAACCGCTTGATCGATTTCAGCTTA---TTGTACGGG
B73 GAGGAAAAGAGTGAGGAAAAGGTAATTCC--GGTTGATTTCAGCTTATTAATTGTACGGT

No2 TTTTTTTTACTCCTG--GGCTTA---TCGATCTGTCACTTGATTTCAATTAGA-----
Ro2 TT-TTTTAACTCCTGTGGGCTTATCGTCGATCTGTCACTTGATTTTAAATTAGAAAGGAAT
N+ GTTTTTTAACTCCTG--GGCTTA---TCGATCTGTCACTTGATTTTAAATTAGAAAGGAAT
B73 TTTTTTTTACTCCTG--GGCTTA---TCGATCTGTCACTTGATTTTAAATTAGAAAGGAAT
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No2 ---ATAGAGAATCAGCCAGACGCTCGAGATACAGGAAAGCCGCTCACCTGAAAGAAGTGG
Ro2 CCAATCGAGAATCAGCCAGACGCTCGAGATACAGGAAAGCCGCTCACCTGAAAGAAGTGG
N+ CCAATAGAGAATCAGCCAGACGCTCGAGATACAGGAAAGCCGCTCACCTGAAAGAAGTGG
B73 CCAATAGAGAATCAGCCAGACGCTCGAGATACAGGAAAGCCGCTCACCTGAAAGAAGTGG
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No2 AGGACCAGGTAC---TGATGCGTAGCATCACAACTAAACCATCGATCGTCGTTCCATTT
Ro2 AGGACCAGGTACTACAGATGCGTAGCATCACAACTAAACCATCGATCGTCGTTCCATTT
N+ AAGACCAGGTAC---TGATGCGTAGCATCACAACTAAACCATCGATCGTCGTTCCATTT
B73 AGGACCAGGTAC---TGATGCGTAGCATCACAACTAAACCATCGATCGTCGTTCCATTT
*.***** :*****

No2 GCCTATTGAAACCCCTCCAAAAAAAAGGGTTTTTTTAA-----TTCGGTTTTGCTG
Ro2 GCCTACTGAAACCCCTAAGA---AAAAGGATTTTTTTAGCTGGTGCTATCGGTTTTGCTG
N+ GCCTACTAAAACCCAAAAA-----AAGGGTTTTTAAAGCTGGTGCCCTCGATTTTGCTG
B73 GCCTACTGAAACCCCTAAAAA---AAAAGGGTTTTTTAAGCTGGTGCTTCCGTTTTGCTG
***** *.***** :... *.***** *

No2 GTGTAGACGTGTAGTCGTGTTTTTTTTTTTTCAGTTTTGCCATGCTTGACCATTATATTACA
Ro2 GTGTAGTCGTGTTT-----TTTT-TTGTTTCAGTTTTTGCTGCTTGACCATTATATTACA
N+ GTGTAGTCGTGTTT-----TTTTTGGGTTTCAGTTTTGCCGTGCTTGACCATTATATTACA

B73 GTGTAGTCGTGTTT-----TT---TCGTTCAGTTTTGCCGTGCTTGACCATTATATTACA
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No2 GGTAGCACAGCTAAAAGCCGAGAATTCTTGCCTGCTGAGGCGCATTGCCGCTCTGAACCA
 Ro2 GGTAGCACAGCTAAAAGCCGAGAATTCTTGCCTGCTGAGGCGCATTGCTTCTCTGAACCA
 N+ GGTAGCACAGCTAAAAGCCGAGAATTCTTGCCTGCTGAGGCGCATTGCCGCTCTGAACCA
 B73 GGTAGCACAGCTAAAAGCCGAGAATTCTTGCCTGCTGAGGCGCATTGCCGCTCTGAACCA

No2 GAAGTACAACGACGCTAACGTCGACAACAGGGTGCTGAGAGCGGACATGGAGACCCTAAG
 Ro2 GAAGTACAACGACGCTAACGTCGACAACAGGGTGCTGAGAGCGGACATGGAGACCCTAAG
 N+ GAAGTACAACGACGCTAACGTCGACAACAGGGTGCTGAGAGCGGACATGGAGACCCTAAG
 B73 GAAGTACAACGACGCTAACGTCGACAACAGGGTGCTGAGAGCGGACATGGAGACCCTAAG

No2 AGCTAAGGTACGTACTACTATACGGCCGGCGGTGACCGCGCGCGCTTATTTCATGC
 Ro2 AGCTAAGGTACGTAA-----CCGCGGCGT----CTTATTTCATGC
 N+ AGCTAAGGTACGTAA-----CCGCGGCGTTCTCCTTATTTTATGC
 B73 AGCTAAGGTACGTAA-----CCGCGGCGTTCTCCTTATTTTATGC
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No2 TTGAACGCGTCGACGAGCGAGCTTGCGCGCGGTAATGGGG-----TATGTCTGGTTGC
 Ro2 TTGAACGCGTCGACGAGCGAGCTTGCAACGCGGTAATGGGGAGGTATATATGTCTGGTTGC
 N+ TTGAACGCGTCGACGAGCGAGCTTGCGCGCGGTAATGGGGAGGTATATATGTCTGGTTGC
 B73 TTGAACGCGTCGACGAGCGAGCTTGCGCGCGGTAATGGGGAGGTATATATGTCTGGTTGC
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No2 ATGCACTCTTGCAGGTGAAGATGGGAGAGGACTCCCTGAAGCGGGTGATAGAGATGAGCT
 Ro2 ATGCA--CTTGCAGGTGAAGATGGGAGAGGACTCTCTGAAGCGGGTGATAGAGATGAGCT
 N+ ATGCACTCTTGCAGGTGAAGATGGGAGAGGACTCTCTGAAGCGGGTGATAGAGATGAGCT
 B73 ATGCACTCTTGCAGGTGAAGATGGGAGAGGACTCCCTGAAGCGGGTGATAGAGATGAGCT

No2 CAT---CAGTGCCGTCGTCCATGCCCATCTCGGCGCCGACACCCAGCTCCGACGCTCCAG
 Ro2 CATCTGCAGTGCCGTCGTCCATGCCCATCTCGGCGCCGACCCAGCTCCGACGCTCCAG
 N+ CAT---CAGTGCCGTCGTCCATGCCCATCTCGGCGCCGACCCAGCTCCGACGCTCCAG
 B73 CAT---CAGTGCCGTCGTCCATGCCCATCTCGGCGCCGACCCAGCTCCGACGCTCCAG
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No2 TGCCG-----CCGCCGCCGCTATCCGAGACAGCATCGTCGGCTACTTCTCCGCCCCAG
 Ro2 TGCCGGTGCCGGTGCCGCCGCTATTCGAGACAGCATCGTCGGCTACTTCTCCGCCCCAG
 N+ TGCCG-----CCGCCGCTATCCGAGACAGCATCGTCGGCTACTTCTCCGCCCCAG
 B73 TGCCG-----CCGCCGCTATCCGAGACAGCATCGTCGGCTACTTCTCCGCCACAG
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No2 CCGCAGACGACGATGCTTCGGTCGGCAACGGTTTCTTGCGACTGCAAGCTC---AAGAGC
 Ro2 CCGCAGACGACGATGCTTCGGTCGGCAACGGTTTCTTGCGACTGCAAGCTC---AAGAGC
 N+ CCGCAGACGACGATGCTTCGGTCGGCAACGGTTTCTTGCGACTGCAAGCTC---AAGAGC
 B73 CCGCAGACGACGATGCTTCGGTCGGCAACGGTTTCTTGCGACTGCAAGCTCATCAAGAGC

No2 CTGCGTCCATGGTCGTCGGTGGAACCTCTGAGCGCCACAGAGATGAACCGAGTAGCAGCAG
 Ro2 CTGCATCCATGGTCGTCGGTGCAACTCTGAGCGCCACAGAGATGAACCGAGTAGCAGCAG
 N+ CTGCATCCATGGTCGTCGGTGCAACTCTGAGCGCCACAGAGATGAACCGAGTAGCAGCAG
 B73 CTGCATCCATGGTCGTCGGTGGAACCTCTGAGCGCCACAGAGATGAACCGAGTAGCAGCAG

No2 CCACGCATTGCGCGGGGGCCATGGAGCTCATCCAGACGGCGATGGGATCCATGCCGCCGA
 Ro2 CCACGCATTGCGCGGGGGCCATGGAGCTCATCCACACGGCGATGGGATCCATGCCGCCGA
 N+ CCACGCATTGCGCGGGGGCCATGGAGCTCATCCAGACGGCGATGGGATCCATGCCGCCGA
 B73 CCACGCATTGCGCGGGGGCCATGGAGCTCATCCAGACGGCGATGGGATCCATGCCGCCGA

No2 CCTCCGCCTCCGGATCTACACCGCCGCGCGGGATTATGAGCTGCTGGGTCCAAATGGGG

Ro2	CCTCCGCCTCCGGATCTACACCGCCGCCGCAGGATTATGAGCTGCTGGGTCCAAATGGGG
N+	CCTCCGCCTCCGGATCTACACCGCCGCCGCAGGATTATGAGCTGCTGGGTCCAAATGGGG
B73	CCTCCGCCTCCGGATCTACACCGCCGCCGCAGGATTATGAGCTGCTGGGTCCAAATGGGG
	*****.*****
No2	CCATACACATGGACATGTATTAG
Ro2	CCATACACATGGACATGTATTAG
N+	CCATACACATGGACATGTATTAG
B73	CCATACACATGGACATGTATTAG

Fig. 1 Suppl. Sequences alignment between the *O2* and *o2* genomic region of N+, No2, Ro2, and B73 lines. The 5' UTR is highlighted in *dark gray*. The exons are highlighted in *gray*. The start codon, the stop codon, and the 10 bp deletion are *underlined*. The start codon marked as 1 is predicted *in silico* (*MaizeGDB*, <https://www.maizegdb.org/>), whereas the start codon marked as 2 was predicted in Schmidt *et al.* (1990). The polymorphism of 10 bp is in *bold and underlined*.