

Query: cMWG706 (data base: GrainGenes)

```
cgcctcaccgtcgagtcctatgatgctcgactcccgcgccaaggacctcgacaaggaggagcgcccagaggtgctg
gccatcctcccgctcctatgagggcaagactgtgctggagctcgggcgccggcatcgggcgctttaccgsgcgagct
ggccaaggaggscggccacgtcatcgcgctggacttcatcgacagcgctcatcaagaagaacgaggagatcaatgg
gcacatccacagcaacatcaccttcatgtgcgccgacgtgacgtcgcgggagstcaagatcgaggacaactccat
cgacatcgtcttctccaactggctgctcatgtacctaacgacgaggaggttgagaagctgattggcagaatagt
gaagtggctgaagcctgggtggacatatTTTTTatcaggaatcgtgcttccatcagtcttggtgattccagagagg
aaagtgaacccgacgcactaccgggagccgaggttttacaccaaggtgttcaaggaatgccactcctatgaccaa
gaggggaactcttttgagctttctctggttaacttccaagtgtattggagcttatgtgaaaagcaagaagaaccag
aaccagatatgctggctatgggagaaggtcaagtgcacagaagacaaaggctttcagagattcctggacaatgtg
cagtacaaatccactggaatcttgcgctacgagcgcggtgtttgggaagg
```

Sequences producing significant alignments in data base: oat markers in T3

	Score	E-value
avgbs_249172	80.6	1e-14
avgbs2_5635.1.38	78.8	4e-14
avgbs2_5635.1.20	78.8	4e-14
avgbs2_165855.1.62	73.4	2e-12
avgbs2_165855.1.61	73.4	2e-12
avgbs2_165855.1.59	73.4	2e-12
avgbs_670066	66.2	3e-10

Alignments to cMWG706 where mapped SNPs of the subjects are in red: Y=C/T, R=A/G, M=A/C

avgbs_249172

```
TGCAGAACGAGGAGATCAATGGGCAAATCTACAAGAAYATCACCTTCAAGTGCGCCGACGTCAC
-----*****
---agaacgaggagatcaatgggcacatccacagcaacatcaccttcatgtgcgccgacgtgac
```

avgbs2_5635.1.38 (2016ExpandedConsensus_Mrg18, 69.9 cM)

```
TGCAGAACGAGGAGATCAAYGGGCAAATCTACAAGAAYATCACCTTCAAGTGCGCCGACGTCAC
-----*****
---agaacgaggagatcaatgggcacatccacagcaacatcaccttcatgtgcgccgacgtgac
```

avgbs2_5635.1.20 (2016ExpandedConsensus_Mrg18, 69.9 cM)

```
TGCAGAACGAGGAGATCAAYGGGCAAATCTACAAGAAYATCACCTTCAAGTGCGCCGACGTCAC
-----*****
---agaacgaggagatcaatgggcacatccacagcaacatcaccttcatgtgcgccgacgtgac
```

avgbs2_165855.1.62 (2016ExpandedConsensus_Mrg18, 20.2 cM)

```
TGCAGGTGCTGTCCATCCTCCCGTCCTACGAGGGGAAATCGGTGCTGGAGCTCGGCGCMGRRAT
-----*****
---aggtgctggccatcctcccgctcctatgagggcaagactgtgctggagctcgggcgccg----
```

avgbs2_165855.1.61 (2016ExpandedConsensus_Mrg18, 20.2 cM)

```
TGCAGGTGCTGTCCATCCTCCCGTCCTACGAGGGGAAATCGGTGCTGGAGCTCGGCGCMGRRAT
-----*****
---aggtgctggccatcctcccgctcctatgagggcaagactgtgctggagctcgggcgccg----
```

avgbs2_165855.1.59 (2016ExpandedConsensus_Mrg18, 20.2 cM)

```
TGCAGGTGCTGTCCATCCTCCCGTCCTACGAGGGGAAATCGGTGCTGGAGCTCGGCGCMGRRAT
-----*****
---aggtgctggccatcctcccgctcctatgagggcaagactgtgctggagctcgggcgccg----
```

avgbs_670066

```
TGCAGTACAAATCCACTGGGATCTTGCGTTATGAGCGTGTGTTTGGAGAGGGCTATGTYAGCAC
-----*****
TGCAGTACAAATCCACTGGGATCTTGCGTTATGAGCGTGTGTTTGG-----
```

Fig. S1 BLASTn analysis of cDNA RFLP marker cMWG706 in oat DNA sequences lodged in the T3/oat database