

Fine mapping of the leaf rust resistance gene *Lr65* in spelt wheat 'Altgold'

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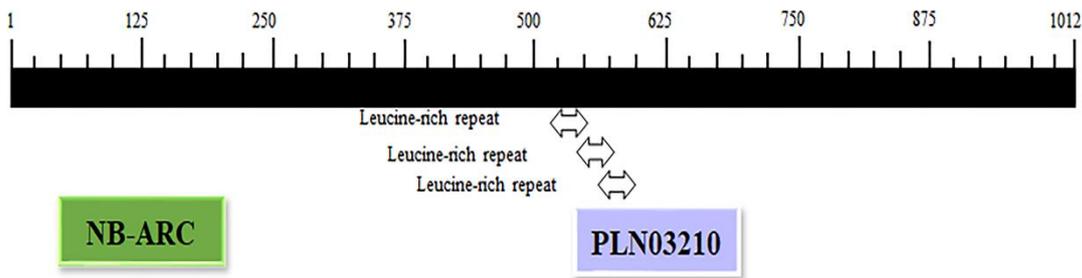


Fig. S1 Structural prediction of amino acids encoded by *TraesCS2A02G001500* gene . NB-ARC is a loci capable of binding to nucleotides. PLN03210 is a multiple leucine-rich repeat sequence.

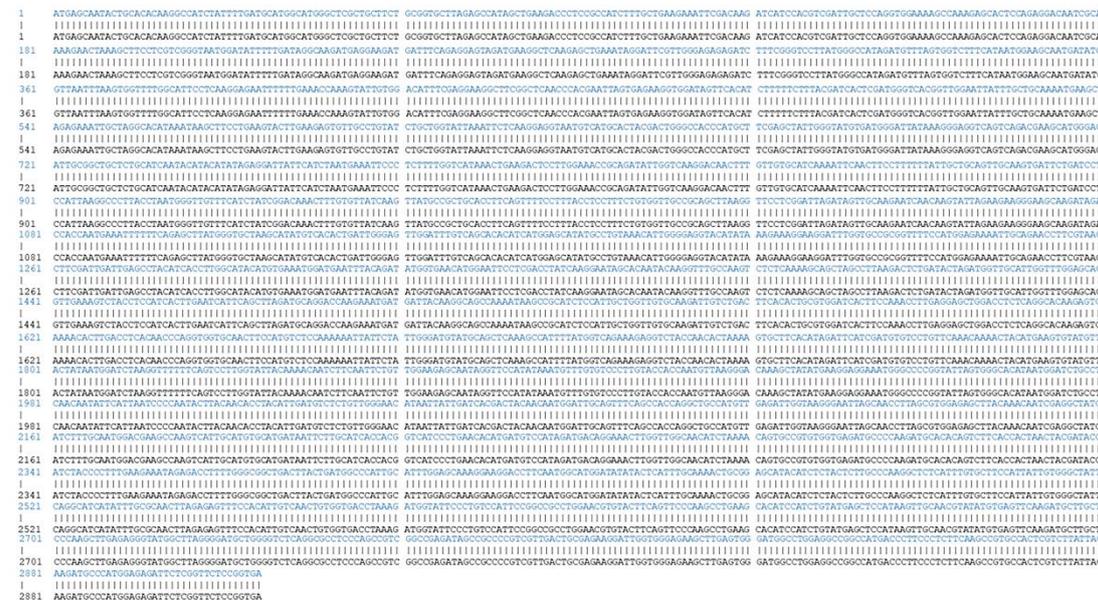


Fig. S2 Nucleotide sequence of the annotated gene *TraesCS2A02G001400* compared between resistant (Altgold) and susceptible (CS) parents. Blue and black represent Altgold and CS, resp.

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1 ATGCCTCGAGAGAGGATTGATGCGGACACCATTGATGAAGCGGTTAGTAATGTAATCCTTATCTAGAGGATACAAGCAATACTACACACAAGGCCATC
|
|
1 ATGCCTCGAGAGAGGATTGATGCGGACACCATTGATGAAGCGGTTAGTAATGTAATCCTTATCTAGAGGATACAAGCAATACTACACACAAGGCCATC
|
|
100 T ----- TCATCAATCGGACAAACTTCGGGTGCTCAAGTTATGTCATTGCACCTTCAGTTTCTG
|
|
100 T ----- TCATCAATCGGACAAACTTCGGGTGCTCAAGTTATGTCATTGCACCTTCAGTTTCTG
|
|
1061 CACCTCCTTTTGTGTTGCCACAACCTAAGGTCCTTGGATTAGATGGCTGCAAGGACCAGCGAGC...AGAAGAAGATGAGAAGCAAGATAGACCGG
|
|
1061 CACCTCCTTTTGTGTTGCCACAACCTAAGGTCCTTGGATTAGATGGCTGCAAGGACCAGCGAGCAGAAGAAGATGAGAAGCAAGATAGACCGG
|
|
1160 CAATGGAATTTTGTGAGAGCTATGGGTAAGGATGATGACATATGCCACACGGATTGGGAGTTGGACTTAGCAACATACATAACAGAGAAGATGGCTGCAAACA
|
|
1160 CAATGGAATTTTGTGAGAACCTATGGGTAAGGATGATGACATATGCCACACGGATTGGGAGTTGGACTTAGCAACATACATAACAGAGAAGATGGCTGCAAACA
|
|
1259 TTAGGGAGGTACATATAAAGAAAGGAAGGATTTGGTGCCACA ----- GTGGGACGGGCCGGAGGCCA
|
|
1259 TTAGGGAGGTACATATAAAGAAAGGAAGGATTTGGTGCCACA ----- GTGGGACGGGCCGGAGGCCA
|
|
2960 GCCATGACCCTTCCCTCTATGATCCCGCCACTCATCATA
|
|
2960 GCCATGACCCTTCCCTCTATGATCCCGCCACTCATCATA

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FigS3. Nucleotide sequence of the annotated gene *TraesCS2A02G001500* compared between resistant (Altgold) and susceptible (CS) parents. Blue and black represent Altgold and CS, resp. The horizontal line represents the omission of part of the same sequence of both parents. The red box shows a 3-bp indel and a SNP.

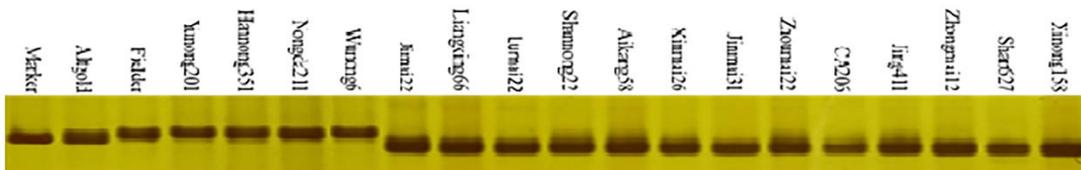


Fig. S4 PCR products of Altgold and 18 Chinese cultivars

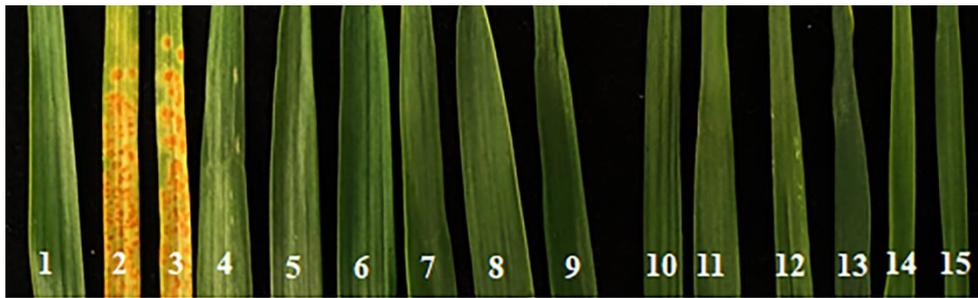


Fig. S5 Images of plants in the greenhouse. 1-3 are Xuexao / Altgold disease resistant progeny, Shiyou20 and Zhongmai1062, respectively; 4-9 are backcross progeny of Xuezaao / Altgold disease resistant progeny and Shiyou20; 10-15 are backcross progeny of Xuezaao / Altgold disease resistant progeny and Zhongmai1062.