



Correction to: Adult plant stem rust resistance in durum wheat Glossy Huguenot: mapping, marker development and validation

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In the original manuscript we characterize the KASP marker IWB32429, linked to the adult plant stem rust resistance locus *Sr63*. We describe allele specific primers which were tagged with FAM and HEX. Unfortunately, we have since found that the Tags should be reversed. We present here the correction in the methods section and also the revised Table 4 and Table S3.

The original article can be found online at <https://doi.org/10.1007/s00122-022-04052-9>.

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Molecular marker analysis and marker validation

Simple sequence repeat (SSR) markers previously assigned to different wheat chromosomes were obtained from the Grain Genes website (<https://wheat.pw.usda.gov/GG3/>). Kompetitive allele-specific PCR (KASP) assays for trait linked SNPs were obtained from PolyMarker (http://www.polymarker.info/designed_primers). All KASP markers were tested on the entire RIL population. Sequences of some critical markers are provided in Table S1. PCR reactions were performed in 96-well plates in a total volume of 8 µl, comprising of 25–30 ng of genomic DNA, 4 µl of KASP master mix (LGC Biosearch Technologies, Hoddesdon, UK), and 0.11 µl of assay mix containing 12 mM of each allele-specific forward primer, and 36 mM of the reverse primer. The cycling conditions were: 15 min at 95 °C, 10 touchdown cycles of 20 s at 94 °C, 60 s at 65 °C (dropping 0.8 °C per cycle), 25 cycles of 20 s at 94 °C, and finally, 60 s at 57 °C. Fluorescence detection of PCR products was done using Bio-Rad CFX96 manager v 3.1 software. If genotyping clusters were not formed after initial amplification, 5–8 additional amplification cycles were performed, and the samples read again. SNP Lr46G22, linked to the *Lr46/Sr58/Yr29* APR locus (Lagudah unpublished) was used as a KASP marker to genotype the mapping population based on Kandiah et al. (2020). KASP_32429 was amplified using allele-specific primers 1. AGT GAA TGC ATT GCT CAT AAA AAT G, 2. AGT GAA TGC ATT GCT CAT AAA AAT T and a common primer CAT TAA CCA GTA ACC ACC AAA GG. Allele primers 1 and 2 were tagged with HEX and FAM, respectively.

Table 4 Marker validation on a panel of durum wheats

Durum cultivars	<i>Sr58 (CsLV46G22)</i>	<i>KASP_32429 (Sr63)</i>
Glossy Huguenot	A	G
M14	B	T
Altar84	A	T
Arrivato	A	T
Bansi	B	T
Bellaroi	A	T
Caparoi	A	T
DBA-Aurora	A	T
Gundaroi	A	T
Hyperno	A	T
Jandaroi	A	T
Kalka	A	T
Lillaroi	A	T
Penne	A	T
Rostine	A	T
Saintly	A	T
Tamaroi	A	T
Tjilkuri	A	T
WID802	A	T
Wollaroi	A	T
Yallaroi	A	T
Yawa	A	T

A = Glossy Huguenot haplotype; B = M14 haplotype; G/T = Diagnostic SNP for GH (resistant)/M14 (susceptible)

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s00122-022-04240-7>.

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