



Corrigendum: Strategies for Efficient Gene Editing in Protoplasts of *Solanum tuberosum* Theme: Determining gRNA Efficiency Design by Utilizing Protoplast (Research)

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Leena Tripathi,
International Institute of Tropical
Agriculture (IITA), Kenya

*Correspondence:
Bent Larsen Petersen
blp@plen.ku.dk

[†]These authors have contributed
equally to this work

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Frida Meijer Carlsen^{1†}, Ida Elisabeth Johansen^{1,2†}, Zhang Yang³, Ying Liu^{1,4},
Ida Nøhr Westberg¹, Nam Phuong Kieu⁵, Bodil Jørgensen¹, Marit Lenman⁵,
Erik Andreasson⁵, Kåre Lehmann Nielsen⁶, Andreas Blennow¹ and Bent Larsen Petersen^{1*}

¹Department of Plant and Environmental Sciences, Faculty of Science, The University of Copenhagen, Copenhagen, Denmark, ²Kartoffel Mel Centralen Amba, Brænde, Denmark, ³Department of Cellular and Molecular Medicine, Faculty of Health Sciences, University of Copenhagen, Copenhagen, Denmark, ⁴Department of Plant Breeding, Swedish University of Agricultural Sciences, Alnarp, Sweden, ⁵Department of Plant Protection Biology, Swedish University of Agricultural Sciences, Alnarp, Sweden, ⁶Bioscience, Aalborg University, Aalborg, Denmark

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A Corrigendum on

Strategies for Efficient Gene Editing in Protoplasts of *Solanum tuberosum* Theme: Determining gRNA Efficiency Design by Utilizing Protoplast (Research)

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In the original article, there were various errors present throughout the main text. These errors have been corrected in the original article.

Additionally, **Figure 1** and **Table 1** have been updated. The updated figure and table are shown below. The Funding statement has also been updated and is shown below.

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The authors apologize for these errors and state that they do not change the scientific conclusions of the article in any way. The original article has been updated.

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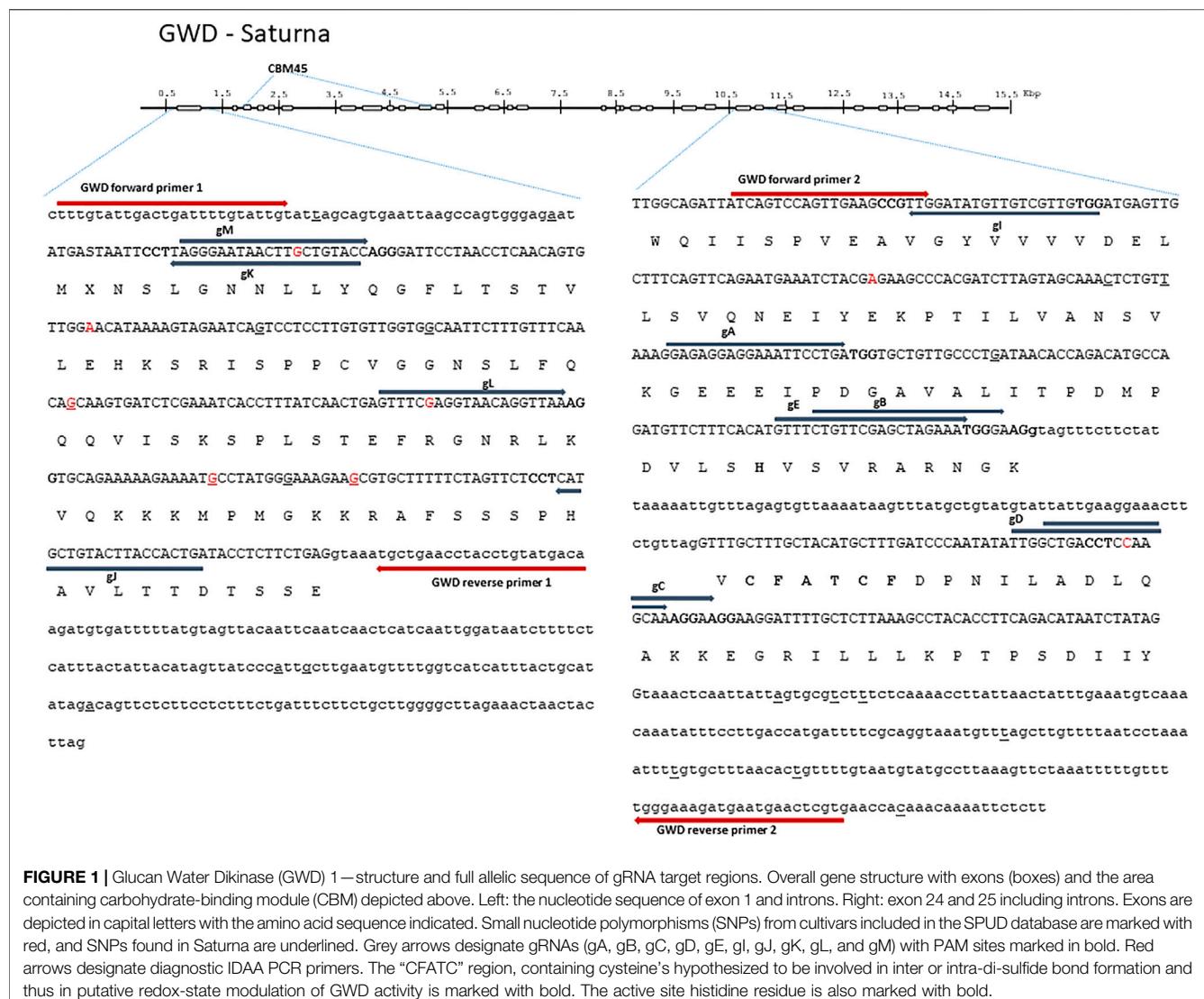


FIGURE 1 | Glucan Water Dikinase (GWD) 1—structure and full allelic sequence of gRNA target regions. Overall gene structure with exons (boxes) and the area containing carbohydrate-binding module (CBM) depicted above. Left: the nucleotide sequence of exon 1 and introns. Right: exon 24 and 25 including introns. Exons are depicted in capital letters with the amino acid sequence indicated. Small nucleotide polymorphisms (SNPs) from cultivars included in the SPUD database are marked with red, and SNPs found in Saturna are underlined. Grey arrows designate gRNAs (gA, gB, gC, gD, gE, gI, gJ, gK, gL, and gM) with PAM sites marked in bold. Red arrows designate diagnostic IDAA PCR primers. The “CFATC” region, containing cysteine’s hypothesized to be involved in inter or intra-di-sulfide bond formation and thus in putative redox-state modulation of GWD activity is marked with bold. The active site histidine residue is also marked with bold.

TABLE 1 | gRNAs and diagnostic IDAA primers for each of the four target regions. Scores and first selection of gRNAs were obtained by feeding ca 1 kb regions to the *in silico* prediction servers CHOPCHOP (<http://chopchop.cbu.uib.no/>), CRISPRater (<https://crispr.cos.uniheidelberg.de/>) and SSC (<http://crispr.dfc.harvard.edu/SSC/>).

	Diagnostic PCR(s)	gRNA
GWD—5' exon 1	GWD Forward primer 1 5' TTTGTATTGACTGATTTGTATTGT 3' GWD Reverse primer 1 FAM 5' TAGTTCTAAGCCCCAAGCA 3'	gJ: TCAGTGGTAAGTACAGCATG gK: AGGGAATAACTGCTGTACC gL: GTTCGAGGTAACAGGTTAA gM: GTACAGCAAGTTATTCCCTA gA: GGAGAGGAGGAAATTCCCTGA gB: TGTCGAGCTAGAAATGGGA gC: GCTGACCTCCAAGCAAAGGA gD: ATTGGCTGACCTCCAAGCAA gE: TTTCTGTCGAGCTAGAAAT gl: CACAACGACAACATATCCAA g43: TTGAGGGAGAGTAGAGTG g44: GTGGCCTATCGGATTGGGT
GWD—3' exon 24 + 25	GWD Forward primer 2: 5' TCAGTCCAGTTGAAGGCCGTTG 3' GWD Reverse primer 2: FAM 5' TCACGAGTTCATTCATCTTCCC 3'	
DMR6—5' exon 1	DMR6 Forward primer 1 FAM 5' CCATGGAAACCGAAAAGTTATTTC 3' DMR6 Reverse primer 1 5' CAACCTAAGTCATTATTGGAAC 3'	g45: TGGAGAAATATGCTCCTGAA
DMR6—5' exon 2	DMR6 Forward primer 2 5' AGCTGACCGGCAGCAAAATTGGTAGCTGGGAATTTC 3' DMR6 Reverse primer 2 5' GGTTACCATGCATAACTATACACAC 3' FAM primer FAM 5' AGCTGACCGGCAGCAAAATTG 3'	
DMR6—5' exon 1 + 2	DMR6 Forward primer 1 FAM 5' CCATGGAAACCGAAAAGTTATTTC 3' DMR6 Reverse primer 2 5' GGTTACCATGCATAACTATACACAC 3' DMR6 Reverse primer 4 FAM 5' CGATGGATTAGAAGGCCATT 3'	g43: TTGAGGGAGAGTAGAGTG g44: GTGGCCTATCGGATTGGGT g45: TGGAGAAATATGCTCCTGAA
DMR6—3' exon 3	DMR6 Forward primer 3 5' ATCGTGAGCAGATATTGCACG 3' DMR6 Reverse primer 3 FAM 5' GGTTTACCTGCAATTGATCAC 3'	g46: GAAGCCATAGCAGAGAGCCT g47: GAATTGGATCAGTATGGGC g48: ATCACCAAGATTAATGACAA