

Article title: Identification of QTL for tolerance to flooding stress at seedling stage of soybean (*Glycine max* L. Merr.)

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Supplementary Table S3. Candidate genes residing in the QTL hot spots on chromosomes 3 and 7.

| SN | Candidate gene | Chr (LG) ¹ | Functional annotation | Physical position (bp) |
|----|----------------------|-----------------------|---|------------------------|
| 1 | <i>Glyma03g34900</i> | 3 (N) | Heat stress transcription factor A-3-like | 42,204,661–42,207,243 |
| 2 | <i>Glyma03g35010</i> | 3 (N) | Growth-regulating factor 3; IPR014977 (WRC), IPR014978 (Glutamine-Leucine-Glutamine, QLQ); GO:0005524 (ATP binding), GO:0005634 (nucleus) | 42,329,293–42,333,130 |
| 3 | <i>Glyma03g35180</i> | 3 (N) | Zinc finger A20 and AN1 domain stress-associated protein; IPR000058 (Zinc finger, AN1-type), IPR002653 (Zinc finger, A20-type); GO:0003677 (DNA binding), GO:0008270 (zinc ion binding) | 42,486,016–42,487,910 |
| 4 | <i>Glyma07g13040</i> | 7 (M) | Transforming growth factor-beta receptor-associated protein 1 homolog isoform X1 [<i>Glycine max</i>]; IPR000547 (Clathrin, heavy chain/VPS, 7-fold repeat), IPR001180 (Citron-like), IPR019452 (Vacuolar sorting protein 39/Transforming growth factor beta receptor-associated domain 1), IPR019453 (Vacuolar sorting protein 39/Transforming growth factor beta receptor-associated domain 2); GO:0005083 (small GTPase regulator activity), GO:0006886 (intracellular protein transport), GO:0016192 (vesicle-mediated transport) | 11,527,805–11,548,310 |
| 5 | <i>Glyma07g03360</i> | 7 (M) | Post-illumination chlorophyll fluorescence increase | 2,363,156–2,366,631 |
| 6 | <i>Glyma07g03880</i> | 7 (M) | Stress response protein NST1-like | 2,720,074–2,725,669 |
| 7 | <i>Glyma07g04090</i> | 7 (M) | Transcription factor regulating root and shoot growth via Pin3 | 2,953,003–2,957,837 |
| 8 | <i>Glyma07g04290</i> | 7 (M) | Growth-regulating factor 5; IPR014977 (WRC), IPR014978 (Glutamine-Leucine-Glutamine, QLQ); GO:0005524 (ATP binding), GO:0005634 (nucleus) | 3,149,413–3,151,946 |
| 9 | <i>Glyma07g05320</i> | 7 (M) | Light-harvesting chlorophyll B-binding protein 3; IPR022796 (Chlorophyll A-B binding protein), IPR023329 (Chlorophyll a/b binding protein domain); GO:0016020 (membrane) | 3,963,068–3,965,547 |
| 10 | <i>Glyma07g09430</i> | 7 (M) | Probable chlorophyll(ide) b reductase NYC1, chloroplastic | 7,871,313–7,875,853 |

¹Chromosome (Chr) and linkage group (LG).