**Article Title:**

**Plasmodesmata callose binding protein 2 contributes to the regulation of cambium/phloem formation and auxin response during the tissue reunion process in incised Arabidopsis stem**

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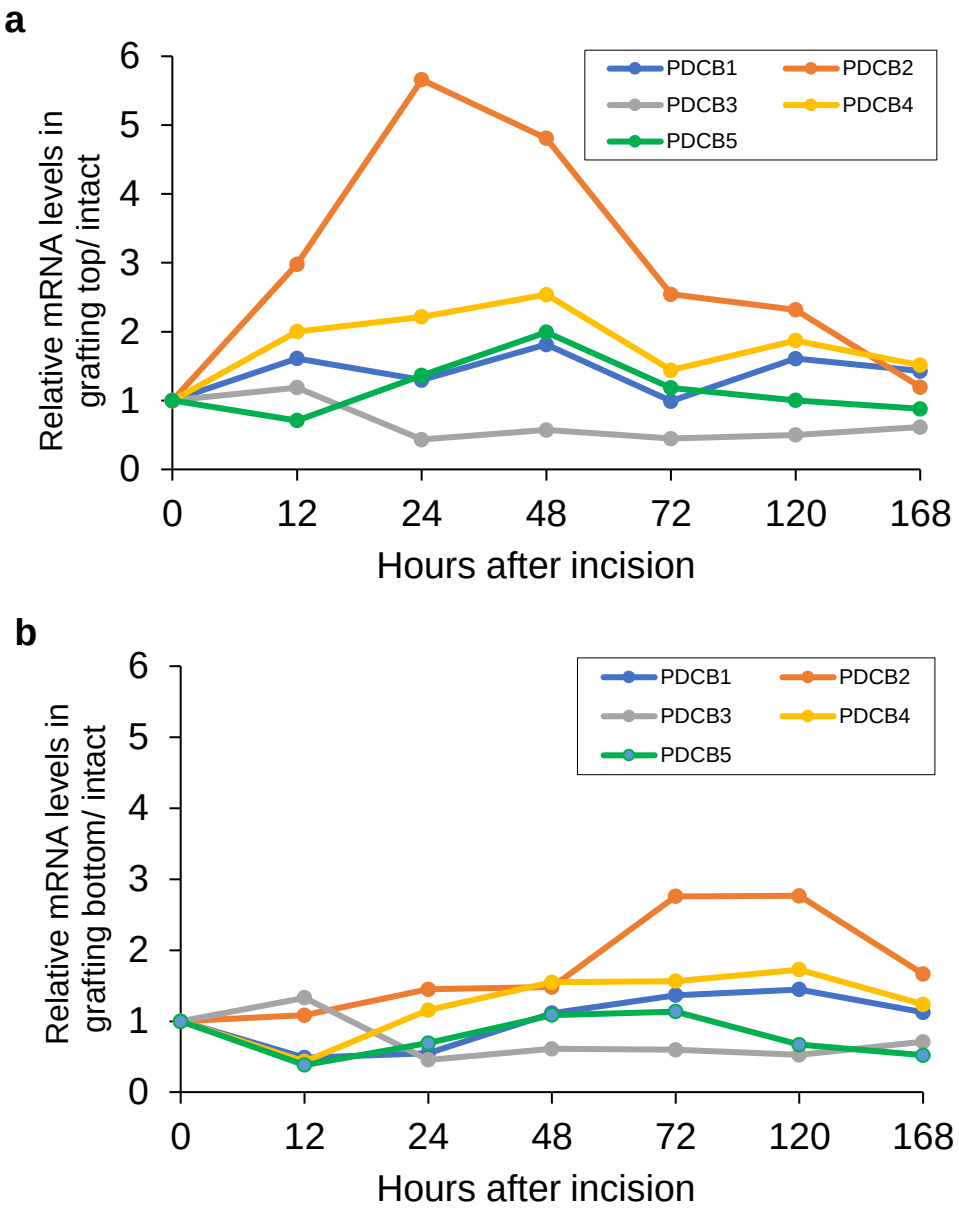


**Fig. S1. *PDCB* mRNA levels at the top and bottom of grafted intact stem (Melnyk *et al*., 2018; GSE107203).**

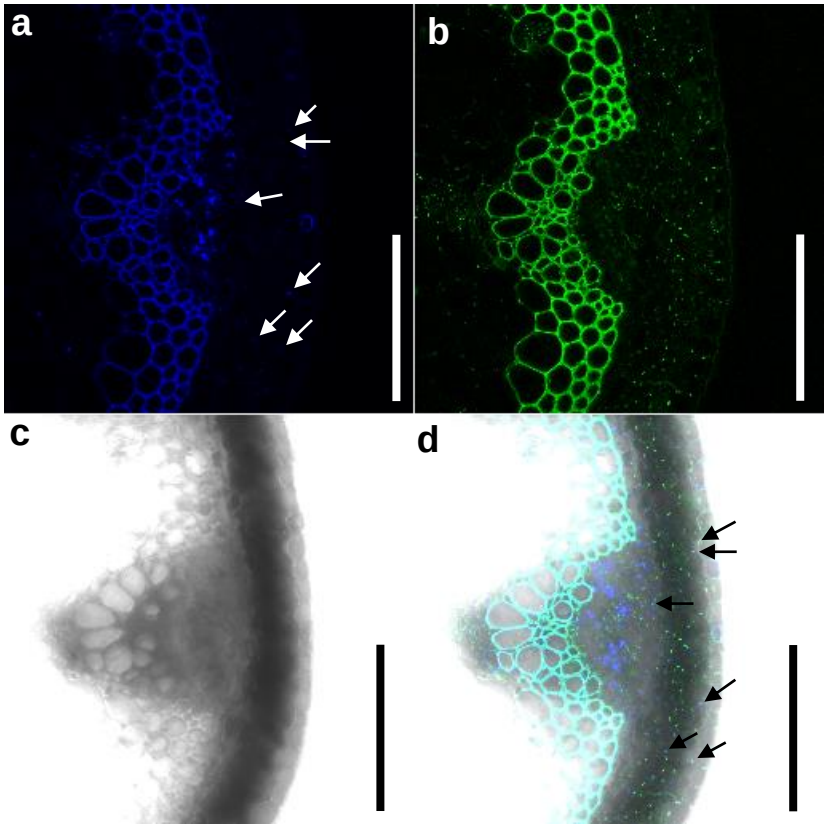


**Fig. S2. Aniline blue and 35S::MP17-GFP fluorescence were coincident.**

**(a) Aniline blue staining, (b) 35S::MP17-GFP, (c) Bright field, (d) Marge. Bars = 100 µm .**

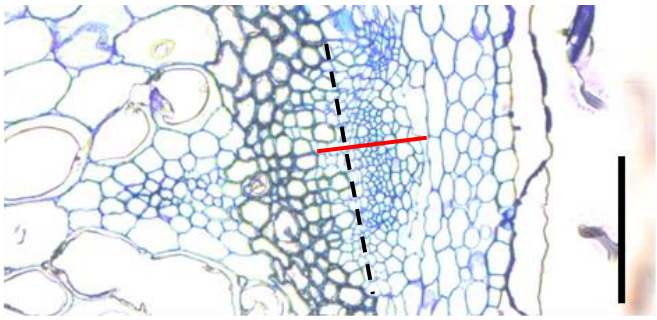

**Fig. S3. Analysis of the number of cells and length of the cambium/phloem region**

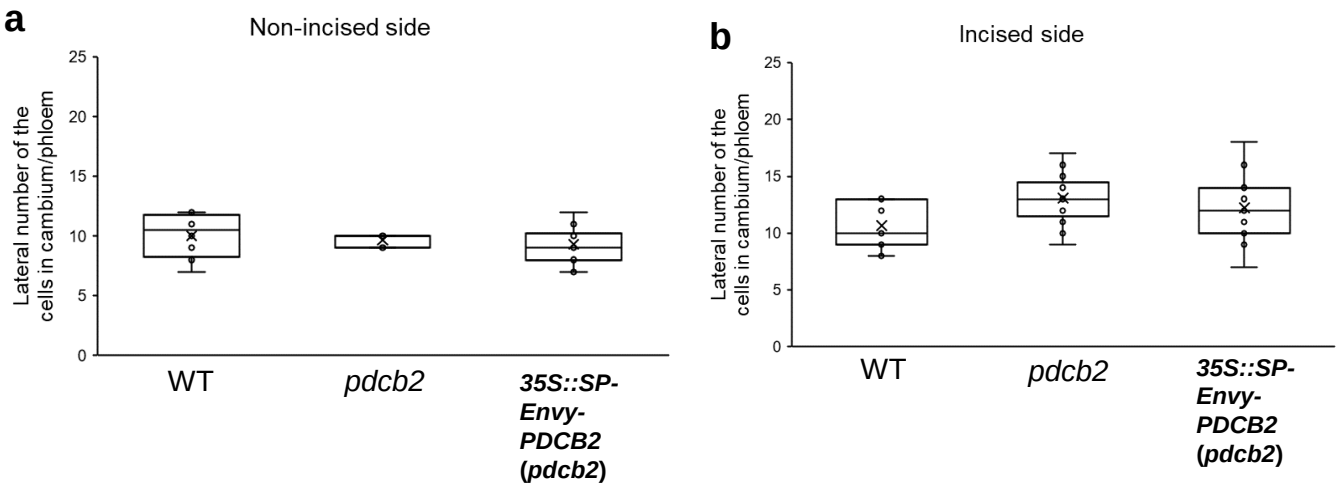


**Fig. S4. Measurement of the lateral number of the cells in non-incised and incised side 7 days after incision.** Values are means boxplot (WT: n=15 from six plants, *pdcb2*: n=13 from five plants, *35S::SP-Envy-PDCB2* (*pdcb2*) : n=21 from seven plants). Statistical analysis was performed by Welch's t-test.

## Table S1. Primer used in this study

**For qRT-PCR**

| AGI | Gene | Forward primer | Reverse primer |
|---|---|---|---|
| **AT3G18780** | ACT2 | 5’-CTGGATCGGTGGTTCCATTC-3’ | 5’-CCTGGACCTGCCTCATCATAC-3’ |
| **AT5G08000** | PDCB2 | 5’-GTCC AAAAGGAAGCAACAGC-3’ | 5’-CCGGTTCCAGTAGCATCAGT-3’ |
| **AT5G61480** | TDR/PXY | 5’-ACATCGGACATTGCGAGAAG-3’ | 5’-GATCTACGTCGGCATTGAC-3’ |
| **AT1G46480** | WOX4 | 5’-AGGTGGAACCCGACTCAAG-3’ | 5’-CGTACTTACCGAGTTGCAATGTG-3’ |
| **AT1G70940** | PIN3 | 5’-TCTTTGATTAGGTTCGGGTAACTC-3’ | 5’-GCTCATGTGAAACTGGAACAAG-3’ |

**For genotyping**

| AGI | Gene | Forward primer | Reverse primer |
|---|---|---|---|
| **AT5G08000** | PDCB2 | 5’-CCTGCAACTCTGCAACACAT-3' | 5’-CCAGAGCTGAATGTGAAAGG-3’ |
| | LBb1,3 | 5-ATTTTGCCGATTTCGGAAC-3' | - |

**For cloning**

| Primer name | Forward primer | Reverse primer |
|---|---|---|
| **AtX8-GPI-Pro** | 5'-CATGTGTGTAGTCAACGCTCTAG-3' | 5'-GGTTGGAGTTCAGAGATACAAATG-3' |
| **Envy** | 5'-GTGACCACCCTGTGCTACGGCGTGCAGTGCTTCGCCCGCTACCCC-3' | 5'-GTTGTGGCGGGTCTTGAAGTTG-3' |
| **PDCB2-SP** | 5'-GCTCGATCCACCTAGGCTATGGCTCCTCTGGTTCTCTACCTTCTCACTCTCCTCATGGCTGGCCATACCAGTGCCGGCCGGCCTGGA-3' | 5'-TCCAGGCCGGCCGGCACTGGTATGGCCAGCCATGAGGAGAGTGAGAAGGTAGAGAACCAGAGGAGCCATAGCCTAGGTGGATCGAGC-3' |
| **Envy-FP3** | 5'-GCCGGCCGGCCTGGAGTGAGCAAGGGCGAGGAGC-3' | - |
| **GFP-R-linker** | - | 5'-AGAACCACCACCACCAGAACCACCACCACCCTTGTACAGCTCGTCCATGCCGAG-3' |
| **PDCB2-Fj** | 5'-GGTGGTGGTGGTTCTGGTGGTGGTGGTTCTGCCTCATGGTGTGTGTGCAA-3' | - |
| **PDCB2-RP4** | - | 5'-CGTAGCGAGACCACAGGATCAGAGCATCATCACGAGA-3' |
| **BPr** | 5'-GGGGACAAGTTTGTACAAAAAAGCAGGCTGCTCGATCCACCTAGGCT-3' | 5'-GGGGACCACTTTGTACAAGAAAGCTGGGTCGTAGCGAGACCACAGGA-3' |