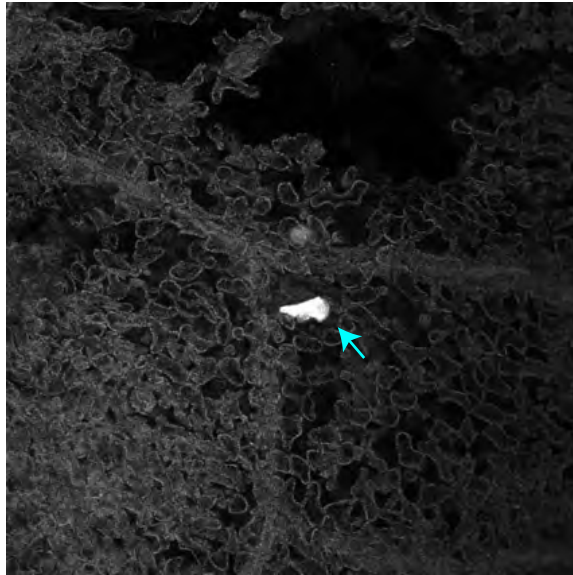
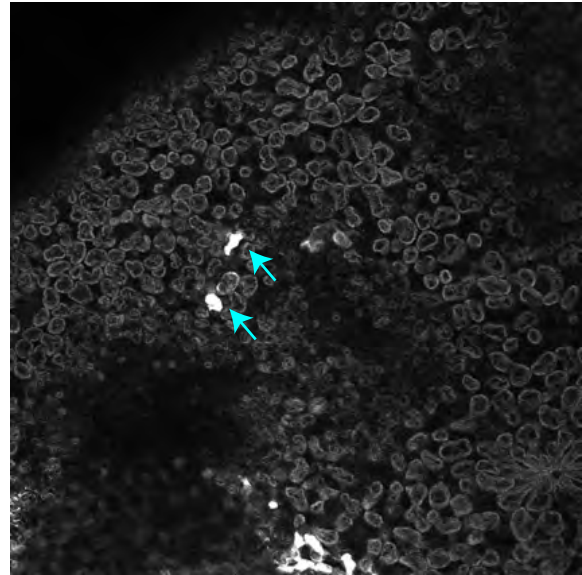


Figure S11

**Transfer of *aca4/11* to a non-suppressing growth medium induces an accumulation of ROS and the apparition of callose deposits.** Plants grown hydroponically in an anion suppression condition (showing no visible lesions) were transferred at  $t = 0\text{h}$  into a standard solution. ROS levels (full leaves pictures) and callose deposition (leaves microscopy pictures- 1,3 mm wide) were tracked by DAB and aniline blue staining, respectively, during 54 to 72h. ROS can be visualized as dark brown dots, and callose deposits as brighter regions (see arrows).



t = 18 h



t = 30 h

Figure SI2

**Lesions initials in *aca4/11* occurs predominantly in mesophyll cells.** Leaves of *aca4/11*, transferred from an anion suppression solution to a standard hydroponic solution, were stained with aniline blue for callose deposition. The figure presents two examples of optical sections of leaves (size: 1,3 mm) taken at 18h (left) or 30h (right) after transfer. Arrows indicate aniline blue-stained cells considered as micro-lesions. Globular shaped spaced cells correspond to mesophyll cells while closed round-shaped cells are considered as parenchyma.

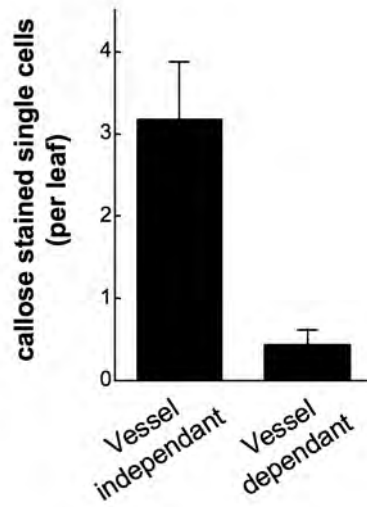


Figure SI3

Lesions and vessels localization were compared. Lesions initials stained with aniline blue (see Figure 4 and 5) appearing within 25mm of a vessel were considered as vessel associated. Average number of lesion initials per leaf and vessel dependent lesion initials for  $t=18$  and  $30h$  are presented ( $\pm$  SEM,  $n=16$ ).

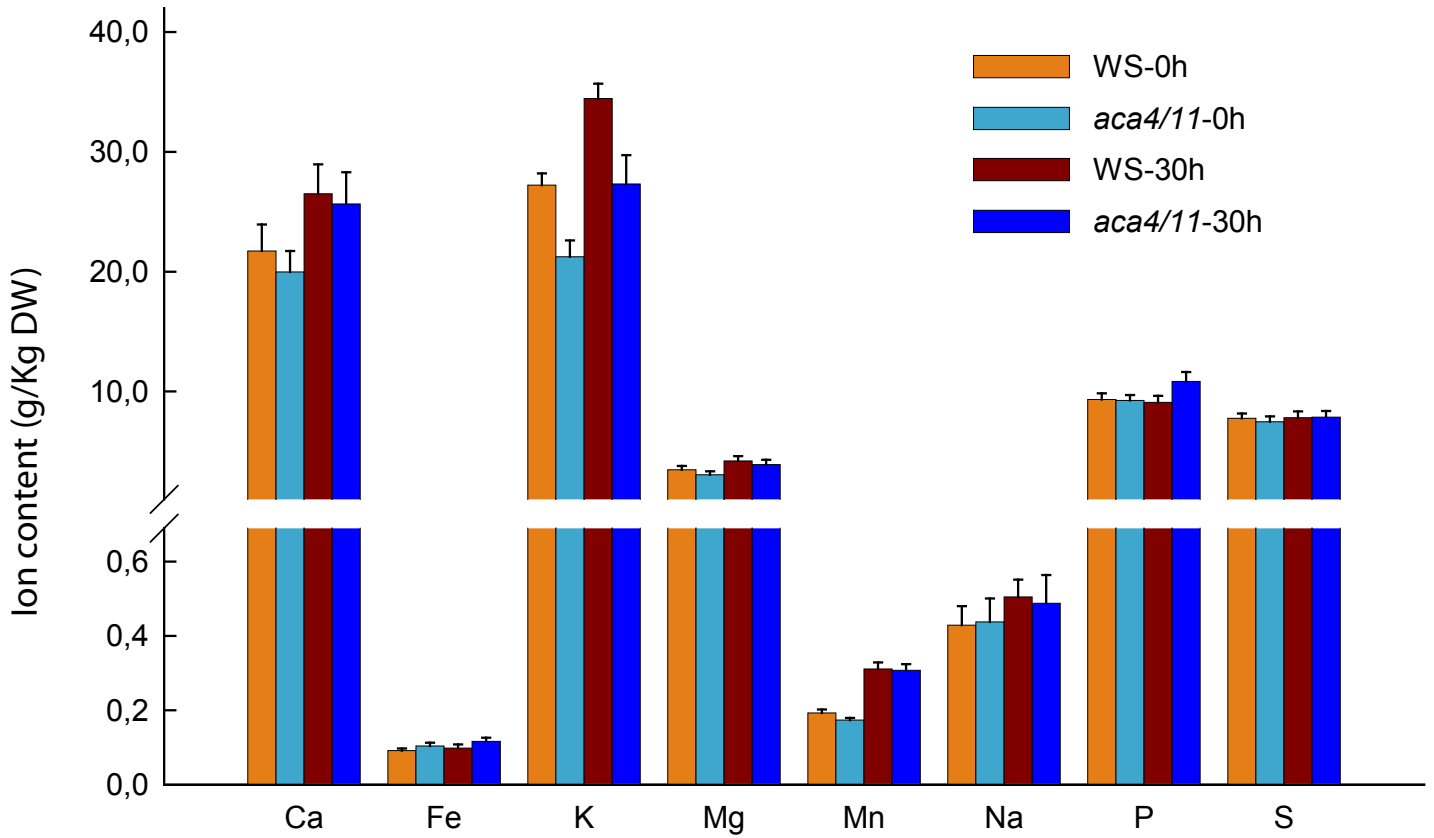


Figure SI4

Ion analysis measurements by ICP-AES providing the content of major ions in *aca4-1/11-1* and WS plants grown in standard hydroponic solution supplemented with 15mM  $\text{NH}_4\text{NO}_3$  (lesion suppressed conditions), or in plants grow in parallel and transferred for 30h to a “lesion inducing solution” (standard hydroponic solution) (see Figure 4). No significant difference between WS and *aca4-1/11-1* were found, except a 20% reduction ( $p < 0.05$ ) for K in the double mutant in all conditions.

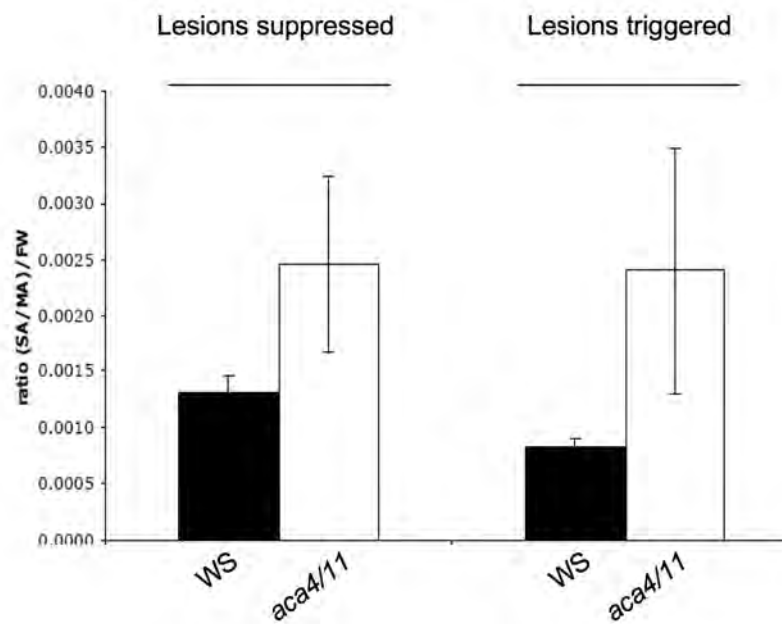


Figure S15

**Relative SA levels in *aca4/11* upon lesion induction.**

The lesion induction was conducted similarly to fig. 4. Metabolites were extracted with chloroform and SA was measured by GC-MS after derivatization. SA levels are expressed relatively to the internal control mandelic acid (MA, added during the extraction) and rosette fresh weight (FW)

Figure SI6: DNA sequence of the *ACA11-GFP* constructs.

ps1657, *ACA11promoter::ACA11-GFP* (The promoter is cloned between a unique *Sbf1* site at 2623 and a unique *Xho1* site at 4758. The *ACA11-GFP* cDNA coding sequence is cloned between *Xho1* at 4758 and a unique *SacI* at 8626.

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