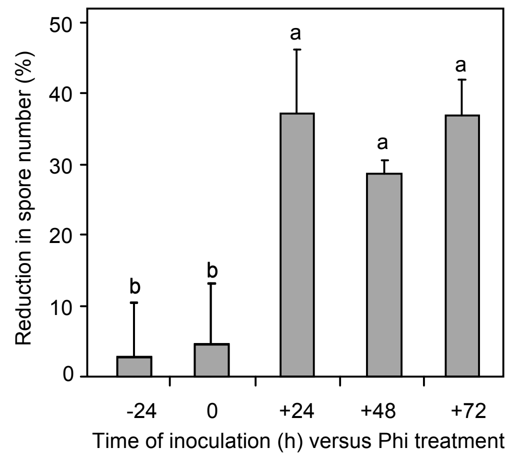
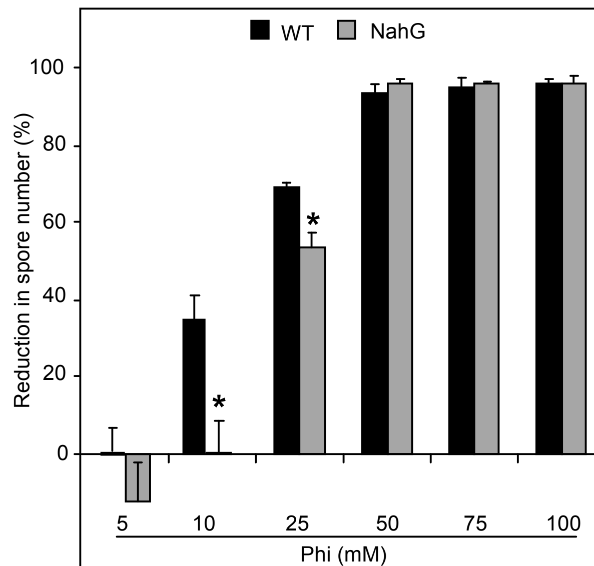
Supplemental Figure S1



Supplemental Figure S1. Incidence of timing of treatment on Phi effectiveness
Chemical treatment, pathogen inoculation and calculation of Phi effectiveness were performed as described in legend of Figure 3. Plants were inoculated 24 h before treatment (-24 h) or at 0, 24, 48 and 72 h post-treatment. Values are means ± SE of 12 replicates from 4 biological independent experiments. Letters indicate significant differences between values (ANOVA, Newman–Keuls test, $P < 0.05$).

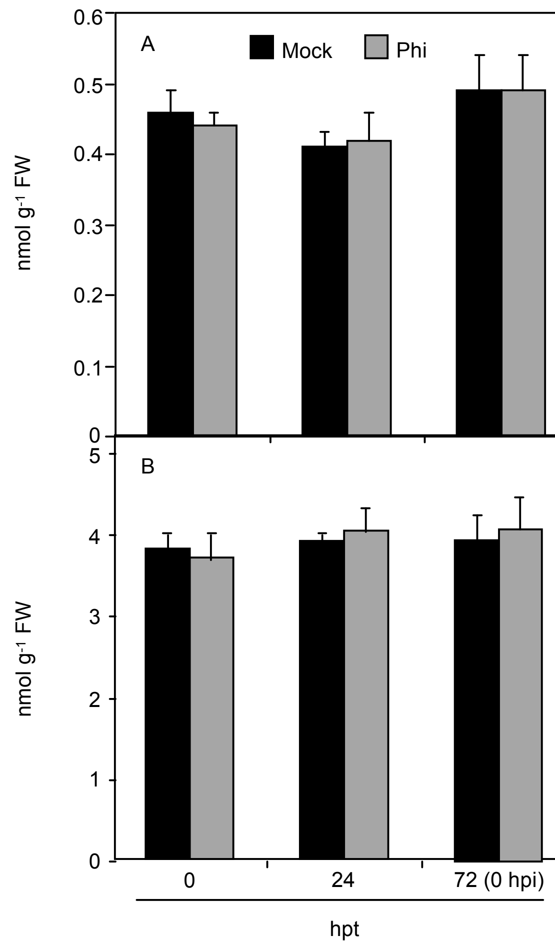
Supplemental Figure S2



Supplemental Figure S2. Phi effectiveness in Col-0 WT and NahG plants against *H. arabidopsidis* Noco2.

Chemical treatment, pathogen inoculation and calculation of Phi effectiveness were performed as described in legend of Figure 2. Values are means ± SE of 15 replicates from 5 biological independent experiments. Asterisks indicate data that are significantly different between Col-0 and NahG plants (Mann-Whitney test, $P < 0.05$). Means ± SD of spore number quantified in mock-pretreated plants of Col-0 WT and NahG transgenic plants, were 600 ± 75 and 1700 ± 110 spore mg^{-1} FW, respectively.

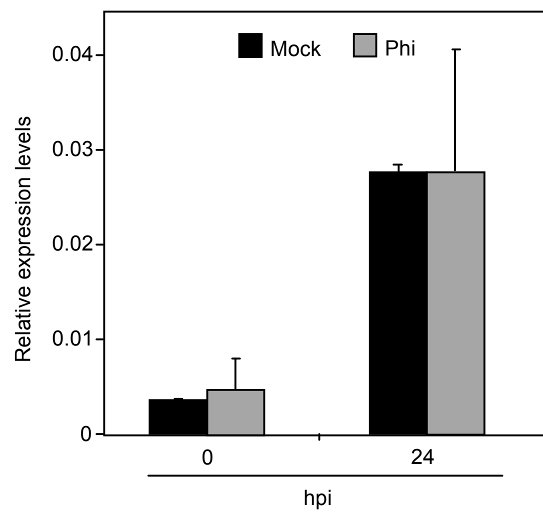
Supplemental Figure S3



Supplemental Figure S3. Effect of Phi treatment on the accumulation of SA in Arabidopsis before inoculation with *H. arabidopsidis*.

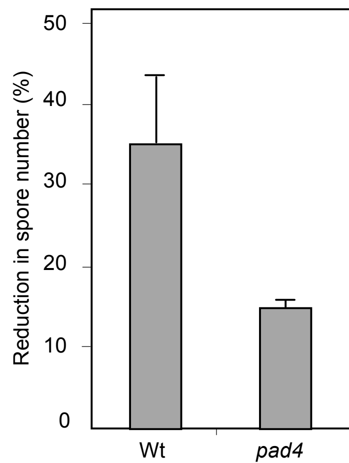
Col-0 WT plants were treated as described in legend of Figure 3. A, Accumulation of free SA; B, Accumulation of total SA. Samples were harvested at 0, 24 and 72 h post-treatment (hpt) which correspond to 0 h post-inoculation (hpi). Levels of SA were quantified by HPLC. Values of graphs are means ± SD of three replicates. The experiment was repeated twice with similar results.

Supplemental Figure S4



Supplemental Figure S4 Impact of Phi on *PDF1.2* transcript accumulation in Arabidopsis in response to *H. arabidopsidis* Noco2.
Plants were treated and inoculated as described in legend of Figure 3. Levels of *PDF1.2* transcripts were quantified by qRT-PCR as for *PR1* in legend of Figure 4. Values of graphs are means ± SD of three replicates. Experiments were repeated twice with similar results.

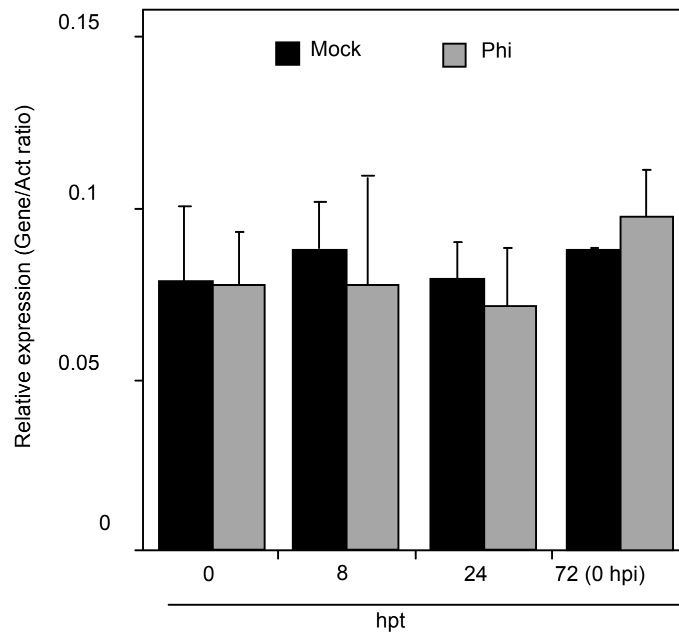
Supplemental Figure S5



Supplemental Figure S5. Phi effectiveness in Col-0 WT and *pad4* mutant against *H. arabidopsidis* Noco2.

Phi treatment, pathogen inoculation and calculation of Phi effectiveness were performed as described in legend of Figure 3. Values are means ± SD of three replicates. Experiment was repeated three times with similar results. Phi effectiveness was significatively different between Col-0 and *pad4* mutant (ANOVA, Newman-Keuls test, $P < 0.05$).

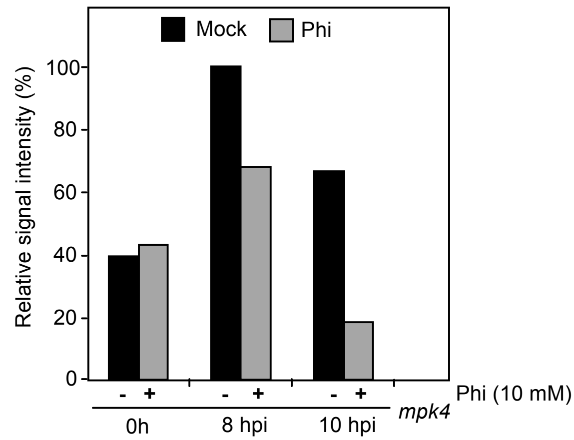
Supplemental Figure S6



Supplemental Figure S6. Impact of Phi on *MPK4* expression in *Arabidopsis* before inoculation with *H. arabidopsidis*.

Plants were treated as described in legend of Figure 3. Samples were harvested at 0, 8, 24 and 72 hour post-treatment (hpt) which correspond to 0 h post-inoculation (hpi). Levels of *MPK4* transcripts were quantified by qRT-PCR as for *PR1* in legend of Figure 4. Values of graphs are means ± SE of three replicates. Experiments were repeated twice with similar results.

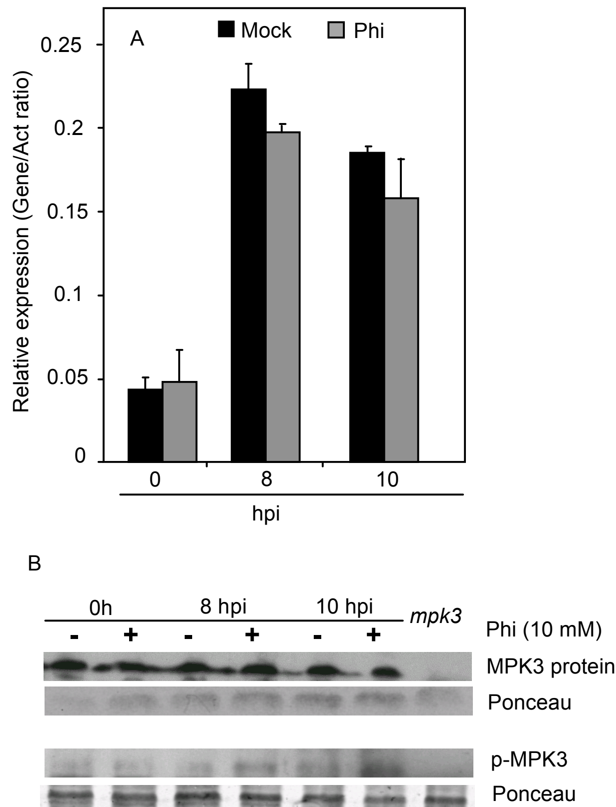
Supplemental Figure S7



Supplemental Figure S7. Quantification of immunodetection signals of MPK4 activity in Figure 7B.

Quantification of signals from immunodetection of protein was done by scanning images and using ImageJ software provided by NIH. Intensity of signals was expressed relative to signal of mock at 8 hpi for MPK4.

Supplemental Figure S8



Supplemental Figure S8. Effect of Phi treatment on gene expression, protein accumulation and phosphorylation of MPK3 in response to *H. arabidopsidis*.

A, *MPK3* expression B, Accumulation and phosphorylation state of MPK3 protein. Plants were treated and inoculated as described in legend of Figure 3. Samples were harvested at 0, 8 and 10 hpi. Aliquots of leaf tissues were used for quantification of *MPK3* transcripts by qRT-PCR as for *PR1* transcripts in legend of Figure 4. Another aliquots of leaf tissues were used for protein extraction and SDS-PAGE. A polyclonal α-MPK3 antibody was used for the immunodetection of MPK3 protein. α-phospho-p44/42 ERK antibody was used to monitor the phosphorylation state of MPK3 (p-MPK3). Leaf protein extract of *mpk3* mutant was used as a negative control for MPK3. The experiment was repeated three times with similar results. Ponceau staining shows equal transfer of protein samples to the membrane.

Table S1. List of primers used in this work

Gene	Arabidopsis Genome Initiative	Primers pairs	Primer efficiency
PAD4	At3g52430	F 5'- TCTTAGCCGAGCCACTCGAC -3' R 5'- TTCTCGCCTCATCCAACCAC - 3'	97%
EDS1	At3g48090	F 5'- CGAAGACACAGGGCCGTA -3' R 5'- AAGCATGATCCGCACTCG-3'	97%
MPK4	At4g01370	F 5'- FCGTTGTGCCACCCATATTT-3' R 5'- AAAATTGAACGGCCTCACAC-3'	97%
PR1	At2g14610	F 5'-AGGCTAACTACAACTACGCTGCG- 3' R 5'-GCTTCTCGTTCACATAATTCCCAC-3'	95%
PDF1.2	At5g44420	F 5'-CTGTTACGTCCCATGTTAAATCTACC-3' R 5'-CAACGGGAAAATAAACATTAAAACAG-3'	94%
ACT2	At3g18780	F 5'-CTGTACGGTAACATTG TGCTCAG-3' R 5'-CCGATCCAGACACTGTACTTCC-3'	95%