

Supplementary Figures

**Heterologous Expression of the Cotton NBS-LRR Gene *GbaNA1*
Enhances Verticillium wilt Resistance in *Arabidopsis***

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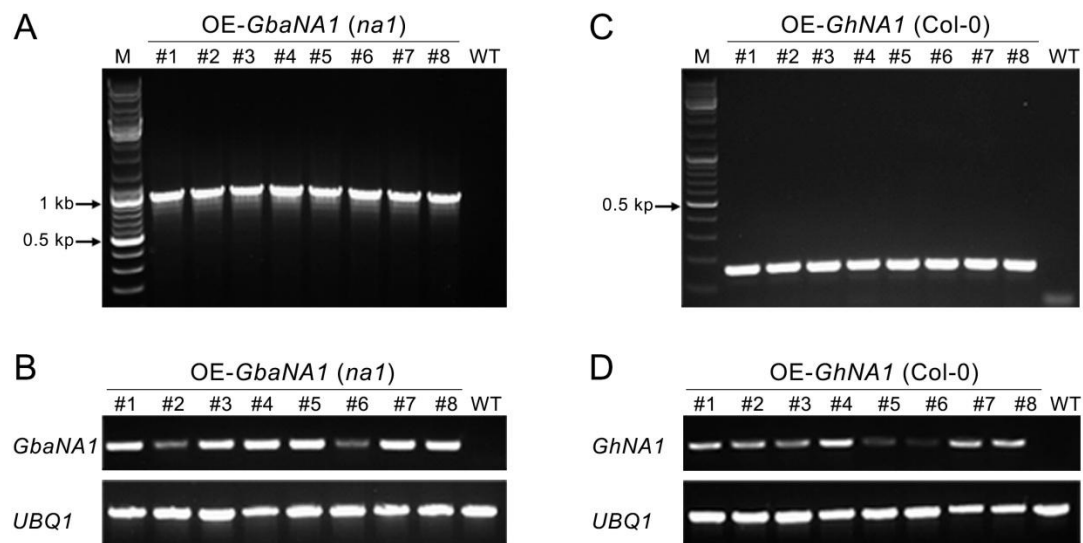
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26 **Running title: The Island Cotton NBS-LRR Gene**

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28 **Figure S1 | Identification of the positive *Arabidopsis thaliana* transgenic lines. (A)**

30 PCR products of *GbaNA1*, amplified from DNA extracted from

31 *GbaNA1*-overexpressing transgenic lines of *A. thaliana na1* mutant. **(B)** Reverse

32 transcription-PCR (RT-PCR) amplification of *GbaNA1* cDNA in the same transgenic

33 *A. thaliana*. *UBQ1* is shown as a control. **(C)** PCR products of *GhNA1*, amplified

34 from DNA extracted from *GhNA1*-overexpressing transgenic lines of *A. thaliana*

35 ecotype Col-0. **(D)** RT-PCR amplification of *GhNA1* from cDNA prepared from the

36 same transgenic *A. thaliana*. *UBQ1* is shown as a control.

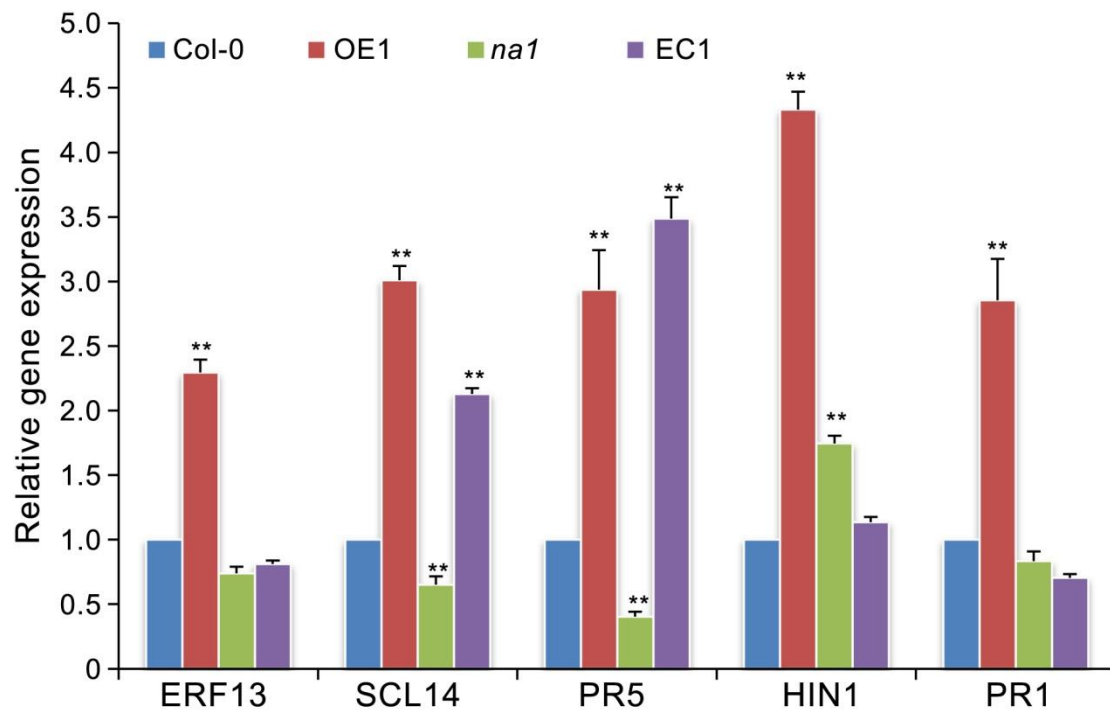


Figure S2 | Detected the expression levels of ethylene signaling-associated gene and defense response genes. Relative expression levels of one ethylene signaling-associated gene (ERF13) and four defense response genes (*SCL14*, *HIN1*, *PR1* and *PR5*) in *A. thaliana* lines. Col-0, *A. thaliana* ecotype Col-0; OE1, *GbaNA1*-overexpression transgenic line; *na1*, *GbaNA1* ortholog mutant; EC1, a *GbaNA1* overexpression transgenic line of *na1*. Relative expression was assessed by reverse transcription-quantitative PCR using the comparative threshold $2^{-\Delta\Delta CT}$ method and *ubiquitin 4* as a reference. Values represent averages of three independent biological replicates. Error bars represent standard errors. Double asterisks (**) represents statistical significance of $P < 0.01$, according to unpaired Student's *t*-tests.

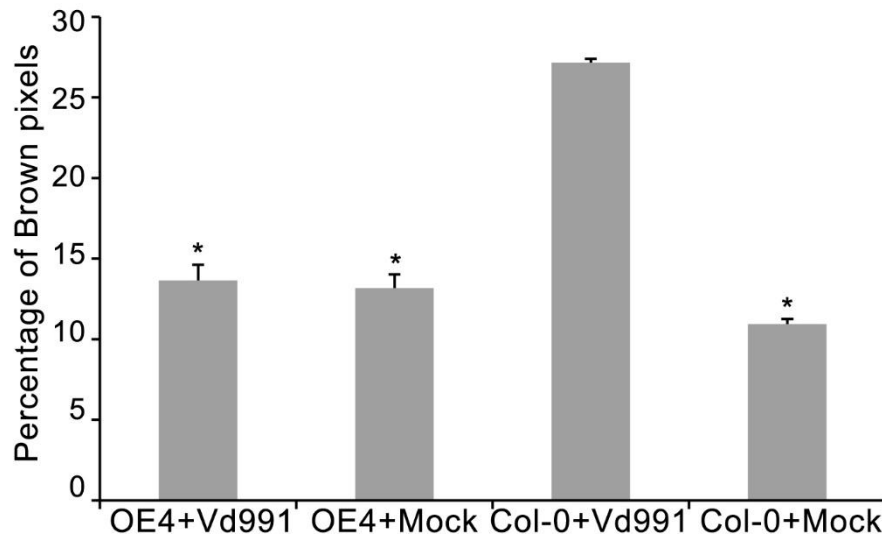


Figure S3 | Detected the ROS accumulation level in *GhNA1* transgenic *Arabidopsis thaliana*. The percent of brown pixels of *GhNA1* transgenic *A. thaliana* (OE4) and wide type (Col-0) plants inoculated with *V. dahliae* strain Vd991. ROS accumulation level was assessed in *GhNA1* transgenic *A. thaliana* and wide type (Col-0) leaves from 3-week-old plants 12 h after infiltration with a 50 μ L conidial suspension (5×10^6 conidia/mL) of *V. dahliae*, strain Vd991 followed by staining with DAB. Sterile water treatments were used as controls (Mock).