Figure S1. Bioinformatics analysis of *HaHR3*. (A) Graphic representation of fragment selection and domain locations. Numbers 1, 2, 3 and 4 mean fragment 1, fragment 2, fragment 3 and fragment 4, respectively, for subsequent bacterial expression of the dsRNAs. The bold green line means the full CDS of *HaHR3*. The length and site of the four black lines represent the corresponding fragment length and site in the CDS. DBD and LBD mean DNA-binding domain and ligand-binding domain, respectively. **(B)** Probability profile of the *HaHR3* mRNA. High-probability sites are predicted to be accessible.
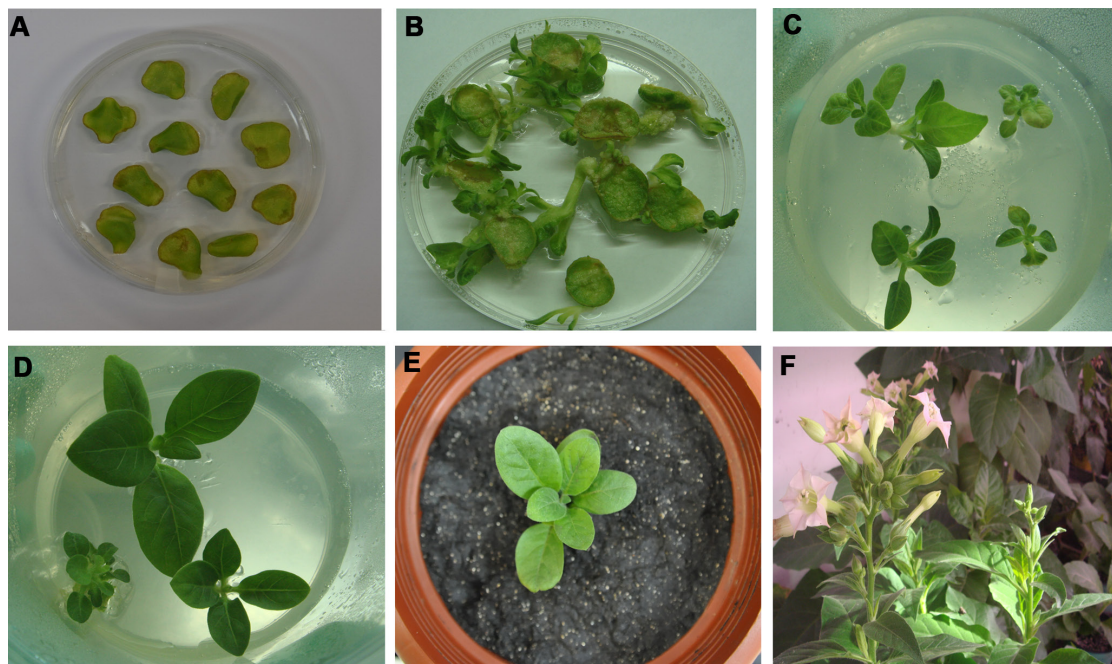

Figure S2. Generation of transgenic tobacco plant lines with standard tissue culture procedures. (A) Inoculation of leaf disks with *A. tumefaciens*. **(B)** Culture of transformed tissue with selection medium. **(C)** Shoot regeneration of transgenic plants. **(D)** Rooting and growth of transgenic plants on rooting medium. **(E)** Transplantation of rooted plantlets to sterilized soil, one plantlet per pot. **(F)** Growth in greenhouse and harvesting of the seeds.
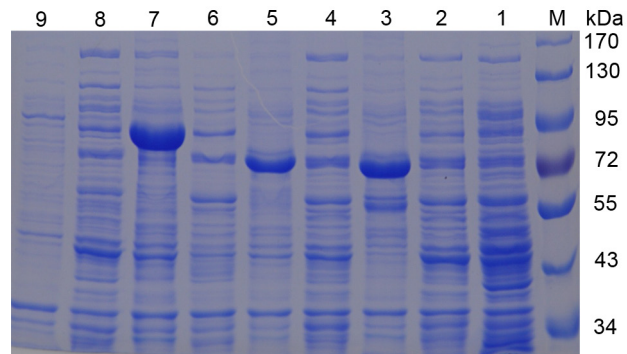
Figure S3. *HaHR3* protein expression with different vectors in *E. coli* cells. M: Marker; 1: No IPTG adding in bacterial solution; 2: pET-28a-*HaHR3* supernatant of sonication; 3: pET-28a-*HaHR3* pellet and inclusion body; 4: pET-30a-*HaHR3* supernatant of sonication; 5: pET-30a-*HaHR3* pellet and inclusion body; 6: pET-32a-*HaHR3* supernatant of sonication; 7: pET-32a-*HaHR3* pellet and inclusion body; 8: pGEX-6p-1-*HaHR3* supernatant of sonication; 9: pGEX-6p-1-*HaHR3* pellet and inclusion body