

Figure S1. Analysis of *OsIMP*: (a) M: DL2000 marker (Takara), 1: PCR product of *OsIMP* gene; (b) Construct of pTCK303–*OsIMP* vector; (c) Restriction analysis of pTCK303–*OsIMP* vector, M: DL2000 marker (Takara), 1: pTCK303–*OsIMP* vector (Restricted with restriction enzymes *Kpn* I and *Spe* I); (d) PCR validation of transgenic tobacco plants, M: DL2000 marker (Takara), 1–15: putative T_0 transgenic tobacco plants, 16: positive control.

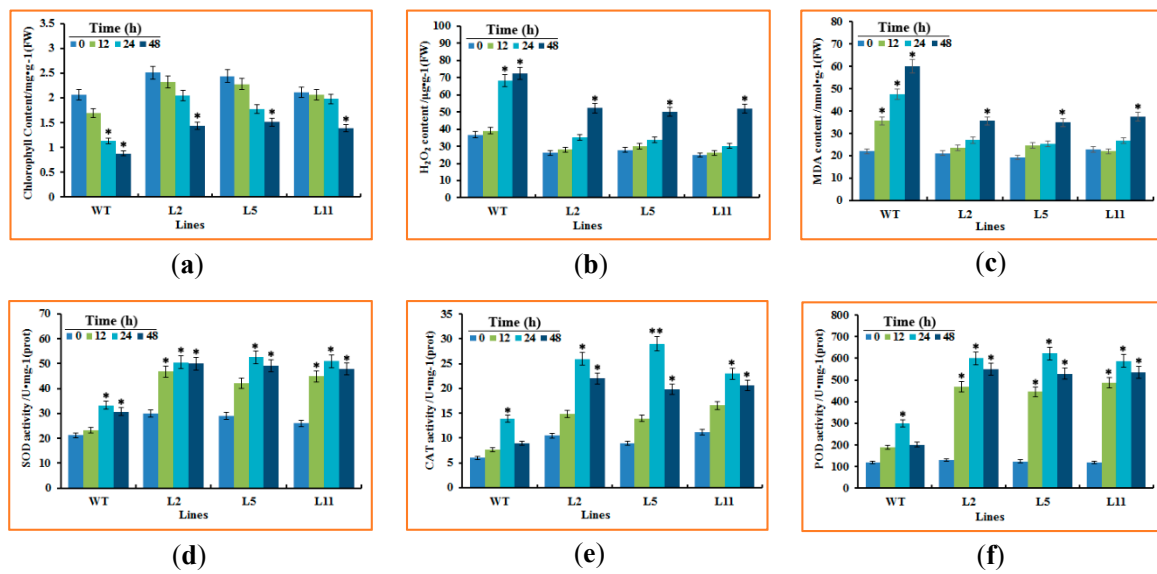


Figure S2. Analysis of biochemical parameters in same plant lines under cold stress at different time points. (a) chlorophyll, (b) H_2O_2 , (c) MDA, (d) SOD, (e) CAT and (f) POD, WT: Wild type; L2, L5 and L11: transgenic lines. Data are the mean \pm SE of three biological replicates, while asterisks indicate significant difference (* $p < 0.05$, ** $p < 0.01$) in comparison with 0 h time point.

Table S1. Oligonucleotide primers (restriction sites are shown underlined).

Primer Name	Genbank Accession	Sequence (5'–3')
OsIMP-F		cgg <u>GGTACCAT</u> GGCGGAGGAGCAGTTC
OsIMP-R	NM_001057109.1	gg <u>ACTAGTACTT</u> GTATCTCCCAATTC
OsIMPQ-F		TGCCTTCCTCAATGGTTCTC
OsIMPQ-R		GTATCATCCAGAGTGGCCTTATC
Actin-F	XM_015774830	CAGCACATTCCAGCAGAT
Actin-R		GGCTTAGCATTCTTGGGT
UBQ5-F	AK061988	GCCTCACCTACGTCTACAAC
UBQ5-R		CGATTTCCTCCTCCTTCCTTAC
OsIMPP-F	Os03g0587000	gc <u>GTCGAC</u> AGTGCTGACTAGTGACGAT
OsIMPP-R		cg <u>GAATTC</u> CGGAATTCACTCCCAATCTAT
HYG-F		AGATGTTGGCGACCTCGTATTGGG
HYG-R		GAGGGCGAAGAATCTCGTGCTTTC