

## Supplementary Material

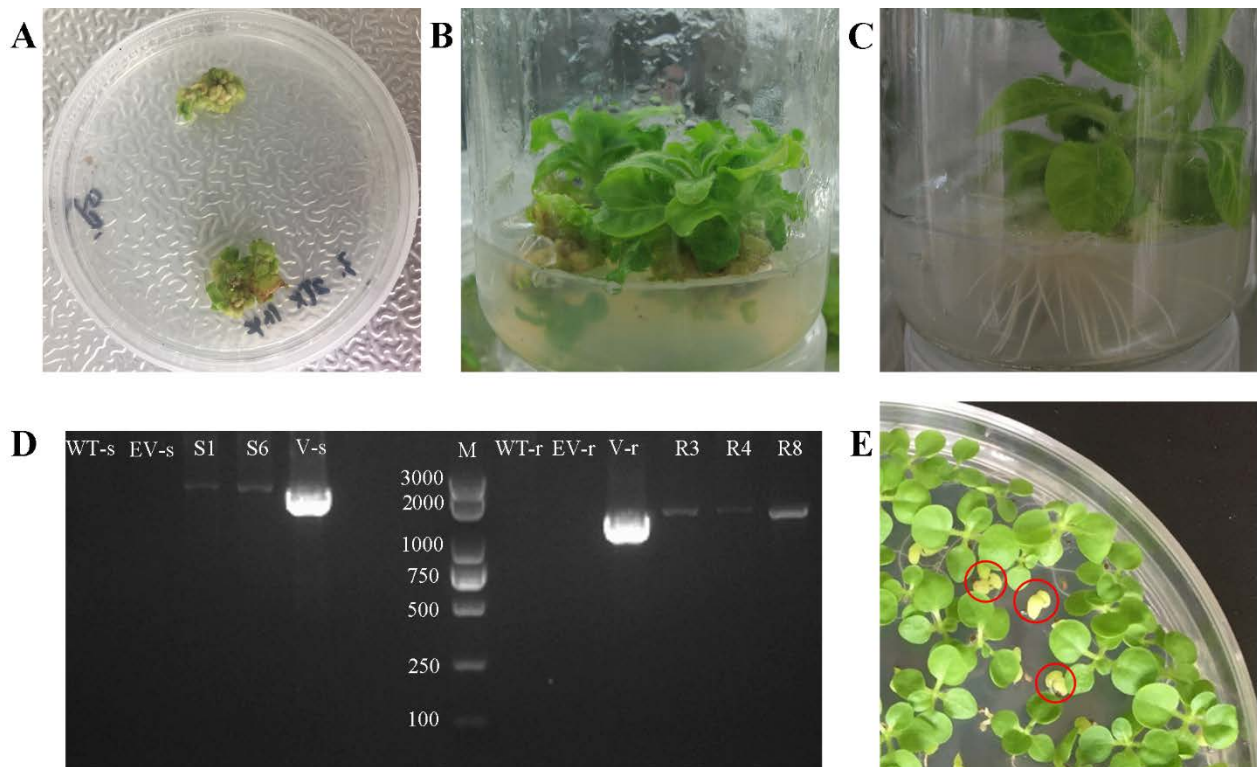
### Overexpression of *LiDXS* and *LiDXR* from Lily (*Lilium* ‘Siberia’) Enhances the Terpenoid Content in Tobacco Flowers

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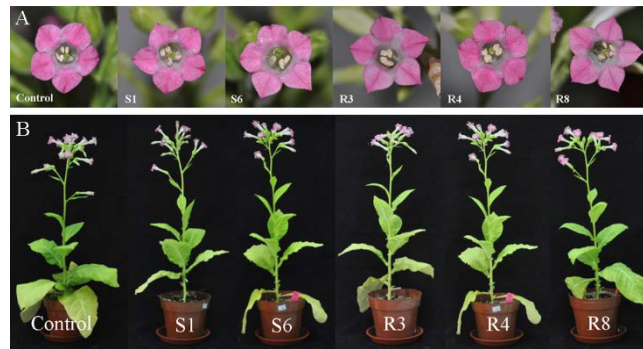
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#### 1 Supplementary Figures and Tables

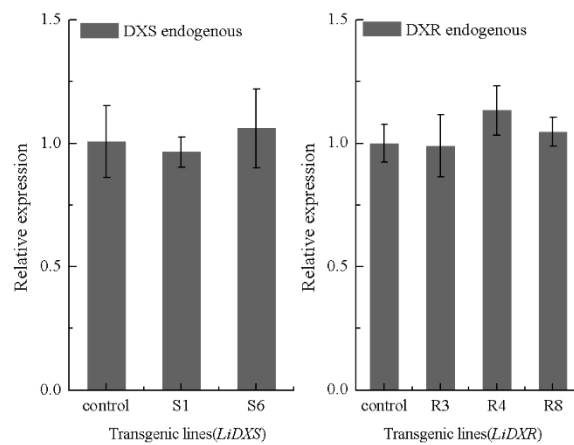
##### 1.1 Supplementary Figures



**Supplementary Figure 1.** The process of selection of transgenic plants. (A) Tobacco leaf differentiation. (B) Regeneration from callus. (C) Rooting culture. (D) WT: wild type, EV: transgenic lines with empty vector, M: DL3000 DNA Marker; V: expression vector, *pSuper1300::LiDXS* and *pSuper1300::LiDXR*. (E) Transgenic plants were screened on Murashige and Skoog's medium containing hygromycin. Sensitive plants are displayed in red cycles.



**Supplementary Figure 2.** The phenotypes of overexpressing transgenic plants. (A) The flower feature transgenic plants. (B) The phenotypes of whole plants.



**Supplementary Figure 3.** Transcription profile of endogenous *DXS* and *DXR* genes in the flower of transgenic tobacco lines.

## 1.2 Supplementary Table

**Supplementary Table 1.** Primers sequences used in this study.

Primers name	Sequence (5'→3')	Purpose
<i>DXS</i> -F1	TTYGGCACSGGSCACAGYTC	intermediate fragment
<i>DXS</i> -R1	GGRGCCATKACDAYCATGTT	amplification
3' GSP	GCAAGATCAAGGATTTGCCAGCA CCAGG	3' RACE
5' GSP	TCTTGCTGTCGACCTCCGCTTCTT TGA	5' RACE
<i>DXS</i> -F	ATGGGGGCCCTTCTCTTTCGTCAA G	full-length cDNA
<i>DXS</i> -R	CTAACTCAAATGCATGGCCTCTTT C	amplification
<i>DXR</i> -F	ATGGCAGCCCTGAAGCTTCCTCTA C	full-length cDNA
<i>DXR</i> -R	TCATACAGGAACTGGACTCAAGC CA	amplification
<i>DXS</i> -qF	AACAATCAGGTGTCTCTCCCGA	Real-time PCR
<i>DXS</i> -qR	GAACCGCCCTTCTCCTTTCTTATG	Real-time PCR
<i>DXR</i> -qF	ACCCAGATGCTGTCACGGTAGTT A	Real-time PCR
<i>DXR</i> -qR	GTGAGCAAGGGGAAGCACAAAG	Real-time PCR
<i>NtEfa1</i> - qF	ACACCCTGTACTACTCACTGAAC G	Transgenic real-time PCR
<i>NtEfa1</i> - qR	GCAGTAGTGGTGAACGAGTAGCC	Transgenic real-time PCR
<i>NtDXS</i> - qF	CAACACAAACTTACTCAGGTCAA G	Transgenic real-time PCR
<i>NtDXS</i> - qR	TGCATAGTATTCTCCTTTTCTGA C	Transgenic real-time PCR
<i>NtDXR</i> - qF	AGAACGAGACACACAGTACTTC	Transgenic real-time PCR
<i>NtDXR</i> - qR	AGTCCACAGGAGTAGGGAAA	Transgenic real-time PCR
<i>DXS</i> -pF	<u>CCAAATCGA</u> CTCTAGAATGGGGG CCCTTCTCTTTCGT	Vector construction
<i>DXS</i> -pR	<u>TACCGGATCC</u> ACTAGTCACTCAA ATGCATGGCCTCTTTCGGC	Vector construction
<i>DXR</i> -pF	<u>CCAAATCGA</u> CTCTAGAATGGCAG CCCTGAAGCTT	Vector construction
<i>DXR</i> -pR	<u>TACCGGATCC</u> ACTAGTCTACAGG AACTGGACTCAAGCCA	Vector construction