

SUPPLEMENTARY INFORMATION

Functional Characterization of An Allene Oxide Synthase Involved in Biosynthesis of Jasmonic Acid and Its Influence on Metabolite Profiles and Ethylene Formation in Tea (*Camellia sinensis*) Flowers

Qiyuan Peng ^{1,2,†}, Ying Zhou ^{1,†}, Yinyin Liao ^{1,2}, Lanting Zeng ^{1,2}, Xinlan Xu ¹, Yongxia Jia ¹, Fang Dong ³, Jianlong Li ⁴, Jinchi Tang ⁴, Ziyin Yang ^{1,2,*}

¹ Guangdong Provincial Key Laboratory of Applied Botany & Key Laboratory of South China Agricultural Plant Molecular Analysis and Genetic Improvement, South China Botanical Garden, Chinese Academy of Sciences, Xingke Road 723, Tianhe District, Guangzhou 510650, China; pqyuan@scbg.ac.cn (Q.P.); yzhou@scbg.ac.cn (Y.Z.); honey_yyliao@scbg.ac.cn (Y.L.); zenglanting@scbg.ac.cn (L.Z.); xxl@scbg.ac.cn (X.X.); jyx@scbg.ac.cn (Y.J.)

² University of Chinese Academy of Sciences, No. 19A Yuquan Road, Beijing 100049, China

³ Guangdong Food and Drug Vocational College, Longdongbei Road 321, Tianhe District, Guangzhou 510520, China; dongfangxyz@163.com (F.D.)

⁴ Tea Research Institute, Guangdong Academy of Agricultural Sciences & Guangdong Provincial Key Laboratory of Tea Plant Resources Innovation and Utilization, Dafeng Road 6, Tianhe District, Guangzhou 510640, China; skylong.41@163.com (J.L.); tangjinchi@126.com (J.T.)

† These authors contributed equally to this work.

* Correspondence: zyyang@scbg.ac.cn; Tel./Fax: +86-20-3807-2989

Table S1. Primers of first round of AOS-PCR.

Gene	Forward primer 5'-3'	Reverse primer 3'-5'
AOS1	CCCCAAACCCAAGCAATGT	TGATTTACCAACGGCAAGTG
AOS2	CCCCACAGCCCATTATCT	TGCCTTGGACCGCC

AOS1, allene oxide synthase1; AOS2, allene oxide synthase 2.

Table S2. Primers of second round of AOS-PCR.

Gene	Forward primer 5'-3'	Reverse primer 3'-5'
AOS1	AAAGGATCCATGTCTTCTCATCTATTTC	GGGACTAGTAGTCCACGTAGCCTTAG
AOS2	AAAGGATCCATGGCATCATCTTCTTT	GGGCAAACTAGTAAAAGTAGCTCTTCAGC

AOS1, allene oxide synthase 1; AOS2, allene oxide synthase 2.

Table S3. Primers of qRT-PCR used in this study.

Gene	Forward primer 5'-3'	Reverse primer 3'-5'
CsEF1	TTGGACAAGCTAAGGCTGAACG	ATGCCAGGAGCATCAAT GACAGT
CsACS1	TGAGAGGCGATAGAGTGACATT	GCTGCTTCCAAGGCTGATT
CsEIN3	GGTAAGGAAGGAGTTGATGCT	CCGCTTGGTATTCGCTATTG

EF1, encoding elongation factor 1; ACS1, 1-aminocyclopropane-1-carboxylic acid synthase 1; EIN3, ethylene-insensitive 3;