

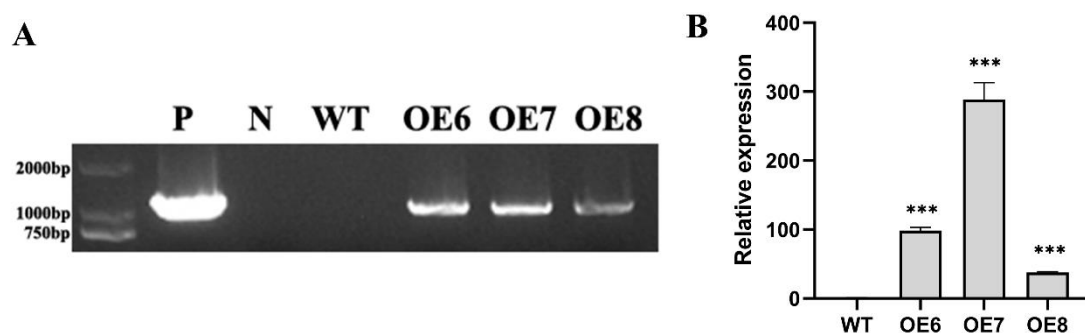
EjFAD8 Enhances the Low-Temperature Tolerance of Loquat by Desaturation of Sulfoquinovosyl Diacylglycerol (SQDG)

Xun Xu ^{1,2}, Hao Yang ^{1,2}, Xiaodong Suo ^{1,2}, Mingxiu Liu ^{1,2}, Danlong Jing ^{1,2}, Yin Zhang ^{1,2}, Jiangbo Dang ^{1,2}, Di Wu ^{1,2}, Qiao He ^{1,2}, Yan Xia ^{1,2}, Shuming Wang ^{1,2}, Guolu Liang ^{1,2} and Qigao Guo ^{1,2,*}

- ¹ Key Laboratory of Horticulture Science for Southern Mountains Regions of Ministry of Education, College of Horticulture and Landscape Architecture, Southwest University, Chongqing 400715, China; xuxun8433@163.com (X.X.); xiatian87285@163.com (H.Y.); sxd18883770582@163.com (X.S.); lmx2004121733@163.com (M.L.); jingdanlong@swu.edu.cn (D.J.); zhangyin2021@swu.edu.cn (Y.Z.); jiangbodang@swu.edu.cn (J.D.); wudisuper@swu.edu.cn (D.W.); heqiao2005@126.com (Q.H.); yansummer@swu.edu.cn (Y.X.); wangsm2018@swu.edu (S.W.); lianggl@swu.edu.cn (G.L.)
- ² Academy of Agricultural Sciences of Southwest University, State Cultivation Base of Crop Stress Biology for Southern Mountainous Land of Southwest University, Chongqing 400715, China
- * Correspondence: qgguo@126.com; Tel.: +86-023-68250383

Supplementary Figures and Tables

1.1 Supplementary Figures



Supplementary Figure 1. (A) Electrophoretic results of semi-quantitative PCR for EjFAD8 in *Arabidopsis thaliana*. P, positive; N, negative. (B) The identification of overexpression *EjFAD8* transgenic *Arabidopsis*.

1.2 Supplementary Tables

Supplementary Table S1 | Primers used for gene cloning and vector construction

Primer name	Primer F sequences (5'-3')	Primer R sequences (5'-3')
EjFAD8	ATGGCGACTTGGGTCCTCTC	CTAGGTTGAAGTGGTACTCAC
pCAMBIA230 0-EjFAD8	gacagggtacccgggatccATGGCG ACTTGGGTCCTCTC	gtgtcgactctagaggatccGGTTGAAGT GGTACTCACTGC

Supplementary Table S2 | Gene source and ID

Gene	Specie	ID
AtFAD7	<i>Arabidopsis thaliana</i>	NP_187727.1
AtFAD8	<i>Arabidopsis thaliana</i>	NP_001190230.1
CiFAD8	<i>Carya illinoensis</i>	XP_042942544.1
CsFAD8	<i>Cannabis sativa</i>	XP_030488828.1
MdFAD7	<i>Malus domestica</i>	XP_028945489.1
MdFAD8	<i>Malus domestica</i>	NP_001280916.1
PaFAD7	<i>Prunus avium</i>	XP_021830308.1
PaFAD8	<i>Prunus avium</i>	XP_021805633.1
PbFAD8	<i>Pyrus bretschneideri</i>	XP_048420918.1
PdFAD7	<i>Prunus dulcis</i>	XP_034221835.1
PdFAD8	<i>Prunus dulcis</i>	XP_034202239.1
RcFAD7	<i>Rosa chinensis</i>	XP_024189650.1
RcFAD8	<i>Rosa chinensis</i>	XP_024177352.1
ToFAD7	<i>Trema orientale</i>	PON92222.1
ToFAD8	<i>Trema orientale</i>	PON86591.1

Supplementary Table S3 | Primers used for quantitative real-time PCR (qRT-PCR)

Primer name	Primer F sequences (5'-3')	Primer R sequences (5'-3')
EjFAD8	CAGCGAACTGTTTCTCCCAA	CTTGGACAGGTCCCATTGTG
AtActin	TATCGCTGACCGTATGAG	CTGAGGGAAGCAAGAATG
EjActin	ATCCTTCGTCTGGACCTTGC	GACAATTTCCCGTTCAGCAGT
AtCBF1	AATGTTTGGCTCCGATTACG	CCCACTTACCGGAGTTTCTT
AtCBF2	GACCTTGGTGGAGGCTATTT	ATCCCTTCGGCCATGTTATC
AtCBF3	TTATATGCACGATGAGGCGA	ATGATTCCACTGTACGGACG
AtICE1	GTTTCGGGAATGAGGAGGTTT	AACACTCTCAGCCGCTTTAC
AtICE2	TCCACAAACGCTGTCTTACC	GTTCACTGCCTTTCCTTCTCT
AtRD29A	CTTGTCGACGAGAAGCAAAGA A	TCTTGATGGAGAATTCGTGTCC
AtCOR47	TGTCATCGAAAAGCTTCACCGA	ACCGGGATGGTAGTGGAAACT G
AtKIN1	ATGCCTTCCAAGCCGGTCAGAC	CCGGTCTTGTCTTCACGAAGT
AtCOR15 A	GTCGTCGTTTCTCAACGCAAGA	GCTTTCTCAGCTTCTTTACCCA
AtFAD4	CCAACATCCCAAAAAGCCAC	GAGGAAGATTCACAGTGCGT
AtFAD6	TTGGTGGAAGACATTGTGGG	AACATGTTGGTTTTGGCGTG
AtFAD7	CTCTATTGGCTCGCTCAAGG	CCGACCACACTGTTCAACTT
AtFAD8	ATCCGAGGAAGACACGGAGA	GGCTGCTCTTATATCCGCCA

AtMGD1	TCAAATCGTTCATGTGGTTCTC	GCCCTTTTTGCCACTTCTGT
AtMGD2	TGTGAGGCCATCTTTTGAC	TTCCCCTCCTCCCATCAGTA
AtMGD3	TCATCACTAAGGCTGGTCCG	CGTTGCCTTTTTCTGTCCA
AtDGD1	TGTGTGCAGATCACCTTCA	AGTGGCTCTTTCGTCATTGC
AtDGD2	CACCAAAAGGAACTTGCCGA	CGGGCTGCTTCTTTGATCTC
AtSQD1	TAAGCCGTTTGTTCAGGGC	ACGCAGCTTTTTCTCGGTTT
AtSQD2	ACTTGGCCTTGTGGTTCTTG	TCCGGTTTTTCCCTCCTGAT
AtPGP1	CGCAGATGACAGCACTAACC	ACATAAAGCAAGCCAGCACC
