SUPPORTING INFORMATION-TABLES

Factorial Combinations of Protein Interactions Generate a Multiplicity of Florigen Activation Complexes in Wheat and Barley

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Table S1 Primers used for yeast two-hybrid constructs (restriction sites are underlined)

Constructs	Primer sequences	Function	Cloning Strategy
pGBKT7-TaFT1	CGGAATTCATGGCCGGGAGGGACAGGG CCGTCGACGTCAATTGTACATCCTCCTGC	Bait	*Eco*RI & *Sal*I
pGADT7-*Ta*FT1	CGGAATTCATGGCCGGGAGGGACAGGG CCCTCGAGGTCAATTGTACATCCTCCTGC	Prey	*Eco*RI & *Xho*I
pGBKT7-*Ta*FT2	CCCATATGATGGTGGGGAGCGGCATG ACGAATTCTCACATCCTTCTCCCGCC	Bait	*Nde*I & *Eco*RI
pGADT7-*Ta*FT2	CCCATATGATGGTGGGGAGCGGCATG ACGAATTCTCACATCCTTCTCCCGCC	Prey	*Nde*I & *Eco*RI
pGBKT7-HvFT3 pGADT7-HvFT3	CCCATATGTCTGCAGCGGATCCATTG CCGAATTCCTCCCCTTGAGAACTTTCTG	Bait & Prey	*Nde*I & *Eco*RI
pGBKT7-HvFT4 pGADT7-HvFT4	CCCATATGGCGAATGACTCCTTGAC CCGAATTCGGTGAACCTCCTCCCGCCGG	Bait & Prey	*Nde*I & *Eco*RI
pGBKT7-HvFT5 pGADT7-HvFT5	CCCATATGTCGGTAGTGGATCCCTTG CCGAATTCCTCCCCTTGAGAACTTTCCGG	Bait & Prey	*Nde*I & *Eco*RI
pGBKT7-HvFT6 pGADT7-HvFT6	CCCATATGTCAAGGGAGGCACTTGCC CCGAATTCTCTAATGTATCGCCTGCCTCC	Bait & Prey	*Nde*I & *Eco*RI
pGBKT7-TaFTL1 pGADT7-TaFTL1	CCCATATGTCGAGGTCGAGGGACCCGC CCGAATTCCCTGTACCACCTCCGGCCAC	Bait & Prey	*Nde*I & *Eco*RI
pGADT7-*Ta*FDL2	CGGAATTCATGGCAGGCCCTTTCATGG CCCTCGAGGTCAAACAGGGGCAGAACT	Prey	*Eco*RI & *Xho*I
pGADT7-TaFDL6	AAGGATCCATATGAGCTCTGAAGGCGGTG CCCTCGAGGTCAGAATGAGGTCGATCT	Prey	*Bam*HI & *Xho*I
pGADT7-*Ta*FDL13	CGGAATTCATGTCGTGGGAGGAGCCC ATGGATCCATTAACTAATTACCCATGC	Prey	*Eco*RI & *Bam*HI
pGADT7-*Ta*FDL15	CGGAATTCATGTCGTGGGAGGAGCCC ATGGATCCACTAGAACTGAGTGGACGA	Prey	*Eco*RI & *Bam*HI
pGADT7-HvFDL1	CCCATATGGGGAGTCGGAAAATGGCGTC CCGAATTCATCCGAAGAGGCTAAACTTGC	Prey	*Nde*I & *Eco*RI
pGADT7-HvFDL2	CCCATATGGGAACTCAGGCAATGCCGTC CCGAATTCGAAGCTGGCCGAGTTCCTCCG	Prey	*Nde*I & *Eco*RI
pGBKT7-14-3-3A pGADT7-14-3-3A	CCCATATGTCTACCGCTGAGGCAACC CCGAATTCGTGCCCCTCTCCCTCAGGC	Bait & Prey	*Nde*I & *Eco*RI

Constructs	Primer sequences	Function	Cloning Strategy
pGBKT7-14-3-3B pGADT7-14-3-3B	CCCATATGGCGCAGCCTGCTGAGC CCGAATTCCTGTCCATCTCCAGATTCACC	Bait & Prey	*Nde*I & *Eco*RI
pGBKT7-14-3-3C pGADT7-14-3-3C	CCCATATGACGGCACCAGCGGAGC CCGGATCCCCTGCCCCTCGCTGGAGTCATG	Bait & Prey	*Nde*I & *Bam*HI
pGBKT7-14-3-3D pGADT7-14-3-3D	CCCATATGGCAAAGGCAGCGGCAACGAG CCGAATTCCTGCTCATCCTCAGGCTTGC	Bait & Prey	*Nde*I & *Eco*RI
pGBKT7-14-3-3E pGADT7-14-3-3E	CCCATATGTCGCCAGCAGAGCCGACGCG CCGAATTCCTGTCCGTCTCCAGATTCT	Bait & Prey	*Nde*I & *Eco*RI
pGBKT7-14-3-3H pGADT7-14-3-3H	CCCATATGGAGGAGAGGGGGAAGGTGG CCGAATTCTCCCTCCATATCGATGTCGC	Bait & Prey	*Nde*I & *Eco*RI
pDONR-TaFDL2	GGGGACAAGTTTGTACAAAAAAGCTGCCACCATGGCAGGCCCTTTCATGGC GGGGACCACTTTGTACAAGAAAGCTGAACGAACAGGGGCAGAACTTGTTC	Entry	Gateway cloning
pDONR-TaFT1	GGGGACAAGTTTGTACAAAAAAGCTGCCACCATGGCCGGGAGGGACAGGG GGGGACCACTTTGTACAAGAAAGCTGAACGATTGTACATCCTCCTGCCAC	Entry	Gateway cloning
pDONR-14-3-3A LAW10-14-3-3A LAW11-14-3-3A pGBKCg-14-3-3A pGADCg-14-3-3A	GGGGACAAGTTTGTACAAAAAAGCTGCCACCATGTCTACCGCTGAGGCAACC GGGGACCACTTTGTACAAGAAAGCTGAACGGTGCCCCTCTCCCTCAGGCTTTG	Bait & Prey	Gateway cloning
pDONR-14-3-3B LAW10-14-3-3B LAW11-14-3-3B pGBKCg-14-3-3B pGADCg-14-3-3B	GGGGACAAGTTTGTACAAAAAAGCTGCCACCATGGCGCAGCCTGCTGAGC GGGGACCACTTTGTACAAGAAAGCTGAACGCTGTCCATCTCCAGATTCACC	Bait & Prey	Gateway cloning
pDONR-14-3-3C LAW10-14-3-3C LAW11-14-3-3C pGBKCg-14-3-3C pGADCg-14-3-3C	GGGGACAAGTTTGTACAAAAAAGCTGCCACCATGACGGCACCAGCGGAGC GGGGACCACTTTGTACAAGAAAGCTGAACGCTGCCCCTCGCTGGAGTCATG	Bait & Prey	Gateway cloning
pDONR-14-3-3D LAW10-14-3-3D LAW11-14-3-3D pGBKCg-14-3-3D pGADCg-14-3-3D	GGGGACAAGTTTGTACAAAAAAGCTGCCACCATGGCAAAGGCAGCGGCAAC GGGGACCACTTTGTACAAGAAAGCTGAACGCTGCTCATCCTCAGGCTTGC	Bait & Prey	Gateway cloning
pDONR-14-3-3E LAW10-14-3-3E LAW11-14-3-3E pGBKCg-14-3-3E pGADCg-14-3-3E	GGGGACAAGTTTGTACAAAAAAGCTGCCACCATGTCGCCAGCAGAGCCGACGCG GGGGACCACTTTGTACAAGAAAGCTGAACGCTGTCCGTCTCCAGATTCT	Bait & Prey	Gateway cloning

Table S2 Primers used in mutant generation by site-directed mutagenesis (mutations underlined)

Mutant	Primer sequences
FT1-G33E	CAACCTCAGGGTGACCTTCGAGAACAGGACCGTGTCC GGACACGGTCCTGTTCTCGAAGGTCACCCTGAGGTTG
FT1-R62K	GGTGGGCGGCAATGAGATGAAGACCTTCTACACACTC GAGTGTGTAGAAGGTCTTCATCTCATTGCCGCCCACC
FT1-T66I	GAGATGAGGACCTTCTACATACTCGTGATGGTAGACCC GGGTCTACCATCACGAGTATGTAGAAGGTCCTCATCTC
FT1-P77S	GACCCAGATGCTCCAAGTTCAAGCGATCCCAACCTTAG CTAAGGTTGGGATCGCTTGAACTTGGAGCATCTGGGTC
FT1-Y85H	GATCCCAACCTTAGGGAGCATCTCCACTGGCTTGTG CACAAGCCAGTGGAGATGCTCCCTAAGGTTGGGATC
FT1-P94L	GGCTTGTGACAGATATCCTCGGTACAACTGGTGCCTCG CGAGGCACCAGTTGTACCGAGGATATCTGTCACAAGCC
FT1-F101A	GGTACAACTGGTGCCTCGGCCGGGCAGGAAGTGATGTG CACATCACTTCCTGCCCGGCCGAGGCACCAGTTGTACC
FT1-R130K	CTCTTCCAGCAGCTCGGCAAGCAGACCGTGTACGC GCGTACACGGTCTGCTTGCCGAGCTGCTGGAAGAG
TaFDL2-S130A	GTATCAACTCCGGAGAACAAGTGCTGCCCCTGTT AACAGGGGCAGCACTTGTTCTCCGGAGTTGATAC
TaFDL6-S310A	GGCATCTTCGGAGAACGAGAGCGACCTCATTC GAATGAGGTCGCTCTCGTTCTCCGAAGATGCC
TaFDL6-T311A	CTTCGGAGAACGAGATCGGCCTCATTCTGACCTCGAG CTCGAGGTCAGAATGAGGCCGATCTCGTTCTCCGAAG
TaFDL6-S312A	CGGAGAACGAGATCGACCGCATTCTGACCTCGAG CTCGAGGTCAGAATGCGGTCGATCTCGTTCTCCG
TaFDL6-Tri-M	GGCATCTTCGGAGAACGAGAGCGGCCGCATTCTGACCTCGAG CTCGAGGTCAGAATGCGGCCGCTCTCGTTCTCCGAAGATGCC
TaFDL15-S131A	GCCCACACAGGAGAACCTCGGCCACTCAGTTC GAACTGAGTGGCCGAGGTTCTCCTGTGTGGGC
HvFDL1-S333A	GTATCAACTCAGGAGAACATGCGCGGCCGCTTTC GAAAGCGGCCGCGCATGTTCTCCTGAGTTGATAC
HvFDL2-S216	GAACCAGCTCCGCCGGAGGAACGCGGCCAGCTTC GAAGCTGGCCGCGTTCCTCCGGCGGAGCTGGTTC

Table S3 Primers used in the Q-RT-PCR analysis

Target gene	Primers	Efficiency	References
Ta14-3-3A	CCATTGAGCAGAAGGAGGAG TCAGTTTCAATCCTGGTACGG	94%	This study
Ta14-3-3B	CCACTGCTCCAGAGTCCAAG GTTCTCAGCAGCATCCTTCC	97%	This study
Ta14-3-3C	CTGCTCGAAACCCACCTTGT TTCTCAGCAGCATCCTTCCT	96%	This study
Ta14-3-3D	GGTACGAGGAGATGGTCGAG CGCGACTGAGAGCAGGTTCC	104%	This study
Ta14-3-3E	TCATGCAGCTCCTGCGTGAC GCTGGGGCTTCCTTAATCTC	102%	This study
TaFDL2	CGAGGAAGCAGGCTTACACT CCGGAGTTGATACTTGGGTTC	99%	Li & Dubcovsky 2008
TaFDL6	GTTGCAATCCCTTCGACAAT GCTCGTTTGTGTAGGCCTGT	97%	Li & Dubcovsky 2008
TaFDL4	CAGAGCATGAACCTCGACGA ACACCTCATCCACCGTCTTC	106%	This study
TaFDL5	GAAGCGGATGATCAAGAACC TGCTCGTTCTCCTCTTCCAG	100%	This study
TaFDL15	AAGAGAGCCTACACGCAGGA GCTTGAGCTTGAGGTTGTCC	104%	This study
ACTIN	ACCTTCAGTTGCCCAGCAAT CAGAGTCGAGCACAATACCAGTTG	98%	Uauy, et al., 2006