

**S3 Table. Primers used in this study.**

Name	Sequence (5' to 3')	Purpose
SALK_016916 LP	GAAGTGTCGACATCTGCAACC	Genotyping of <i>thal-1</i>
SALK_016916 RP	CTTTTGCCTGCTCCATTAGC	Genotyping of <i>thal-1</i>
SALK_036872 LP	ACAAGAGCAAAACGAAGCATG	Genotyping of <i>thal-2</i>
SALK_036872 RP	CAGCTGATAAGCTCACCAAGC	Genotyping of <i>thal-2</i>
LBa1	TGGTTCACGTAGTGGGCCATCG	Genotyping of <i>thal</i> mutants
p1	ATGGGGAAAAAAGGAGGGACTTTG	RT-PCR of <i>THAL</i>
p2	GAAGATACAGAAGACGAAGAGGAGGC	RT-PCR of <i>THAL</i>
p3	TCTTCACTATCATCGTCTAACCAG	RT-PCR of <i>THAL</i>
p4	GAGATGATATTGGAGAACGGCGTAG	RT-PCR of <i>THAL</i>
p5	CTACATTCGGATGCTCCGGCTTG	RT-PCR of <i>THAL</i>
THAL cDNA-F (SalI)	ACGCAGTCGACCATGGGGAAAAAAGGAGGGACTTTG	Protoplast transient expression construct
THAL cDNA-R (SalI)	ACGCAGTCGACCATTCCGGATGCTCCGGCTTG	Protoplast transient expression construct
THALΔC-R0 (SalI)	ACGCAGTCGACGGGAAGCTCTTCATCAAGTTCTT	Protoplast transient expression construct
THALΔC-R1 (SalI)	ACGCAGTCGACTTCTGGCGATGACGGCATCA	Protoplast transient expression construct
THALΔC-R2 (SalI)	ACGCAGTCGACTCTGACCTGTCCTTTGCGTCTAG	Protoplast transient expression construct
THALΔN-F (SalI)	ACGCAGTCGACCATGGGGGATCAAAGAAGTTGATGA AGAGC	Protoplast transient expression construct
FIB2 CDS-F (SalI)	ACGCAGTCGACCATGAGACCTCCTCTAACTGGAAG	Protoplast transient expression construct
FIB2 CDS-R (SalI)	ACGCAGTCGACCTAAGCAGCAGTAGCAGCCT	Protoplast transient expression construct
THAL full-F (XmaI)	CCCCCGGGCTTTCTTCTCTGCCTCTGTTCGATTTCTTC	<i>THAL</i> complementation construct
THAL full-R (PstI)	A <u>ACTGCAG</u> CTAAGCCTGGCAGCCGATC	<i>THAL</i> complementation construct
THAL gene-R (PstI)	A <u>ACTGCAG</u> CATTCCGGATGCTCCGGCTTG	<i>THAL</i> complementation construct
THALcDNA-R(XmaI)	CCCCCGGGCATTCCGGATGCTCCGGCTTG	<i>THAL</i> complementation construct
35S-F (XmaI)	CCCCCGGGCAGTGCCTCGCTACCTTAG	<i>THAL</i> complementation construct
GFP-F (PstI)	A <u>ACTGCAG</u> ATGGTGAGCAAGGGCGAGG	<i>THAL</i> complementation construct
THAL out-R	AGGGCCAAGGGAGTTGGTGTGT	Genotyping for <i>THAL</i> complementation
THAL pro-R (XmaI)	CCCCCGGGTGTGTGTTGCAGAGCAGGTTCTG	GUS analysis of <i>THAL</i> promoter activity
rDNA 5'ETS-F	CCTTGCTCGCATTGGTGAAT	qRT-PCR for rRNA processing analysis
rDNA 5'ETS-R	CGTCGACAACCTTTCCGCAT	qRT-PCR for rRNA processing analysis
rDNA 18S-F	TGACGGAGAATTAGGGTTC	qRT-PCR for rRNA processing analysis
rDNA 18S-R	CCTCCAATGGATCCTCGTTA	qRT-PCR for rRNA processing analysis
rDNA ITS1-F	CGCGAACCAAGATCACCA	qRT-PCR for rRNA processing analysis
rDNA ITS1-R	GGCAAGGAATCGGCTAAGAAA	qRT-PCR for rRNA processing analysis
rDNA 5.8S-F	GCAACGGATATCTCGGCTCTC	qRT-PCR for rRNA processing analysis
rDNA 5.8S-R	TGCGTTCAAAGACTCGATGG	qRT-PCR for rRNA processing analysis
rDNA 25S-F	CTACCGTGCCTGGATTATGA	qRT-PCR for rRNA processing analysis
rDNA 25S-R	GCTTCTAGCCGGATTCTGACT	qRT-PCR for rRNA processing analysis
rDNA P-F	CCGCCTAGGCTGTCCCGAAG	qRT-PCR for P site cleavage analysis
rDNA P-R	CGGACGAATCCAAGCCAAAG	qRT-PCR for P site cleavage analysis
rDNA P1-F	CTTTGGCTTGGATTCTGCCG	qRT-PCR for P1 site cleavage analysis
rDNA P1-R	CGTGAATTAAGTGAAGGA	qRT-PCR for P1 site cleavage analysis
rDNA P'-F	GTTGTGACGGTGACTCGAAGT	qRT-PCR for P' site cleavage analysis
rDNA P'-R	GGTCTTGACCGTCATCTTTTGC	qRT-PCR for P' site cleavage analysis

rDNA A2-F	TGAACCTGCGGAAGGATCAT	qRT-PCR for A2 site cleavage analysis
rDNA A2-R	CGCGAACCAAAGATCACCA	qRT-PCR for A2 site cleavage analysis
rDNA A3-F	AAAACCCCAGCACGAAAAGTGT	qRT-PCR for A3 site cleavage analysis
rDNA A3-R	AATGCCAGCCGTTCTGTTTG	qRT-PCR for A3 site cleavage analysis
rDNA B1-F	ATGCTGTGCTGCGAACTGAA	qRT-PCR for B1 site cleavage analysis
rDNA B1-R	GAGATATCCGTTGCCGAGAGTC	qRT-PCR for B1 site cleavage analysis
rDNA C2-F	TAAATCCGAGCCAAGGACG	qRT-PCR for C2 site cleavage analysis
rDNA C2-R	TCTACTGCTTCCGGACAAGAGC	qRT-PCR for C2 site cleavage analysis
rDNA B0-F	AACAATCCCCAATTCTACACAAGTG	qRT-PCR for B0 site cleavage analysis
rDNA B0-R	ACCTCGAGAGACGAGCTCGTGTA	qRT-PCR for B0 site cleavage analysis
45S-F	GGGGGGTGGGTGTTGAGGGAG	qRT-PCR for 45S pre-rRNA
45S-R	GAAAAAGGGGGTTCACCGGAC	qRT-PCR for 45S pre-rRNA
VAR-F	GACAGACTTGTCCAAAACGCCACC	RT-PCR of rDNA variants
VAR-R	CTGGTCGAGGAATCCTGGACGATT	RT-PCR of rDNA variants
5'EF-1 $\alpha$	CTAAGGATGGTCAGACCCG	Internal control
3'EF-1 $\alpha$	CTTCAGGTATGAAGACACC	Internal control
ACT1-F	CATCAGGAAGGACTTGTACGG	Internal control
ACT1-R	GATGGACCTGACTCGTCATAC	Internal control
rDNA 5'ETS-F	CCTTGCTCGCATTGGTGAAT	qRT-PCR for rRNA processing analysis
rDNA 5'ETS-R	CGTCGACAACCTTTTCCGCAT	qRT-PCR for rRNA processing analysis
rDNA 18S-F	TGACGGAGAATTAGGGTTC	qRT-PCR for rRNA processing analysis
rDNA 18S-R	CCTCCAATGGATCCTCGTTA	qRT-PCR for rRNA processing analysis
rDNA ITS1-F	CGCGAACCAAAGATCACCA	qRT-PCR for rRNA processing analysis
rDNA ITS1-R	GGCAAGGAATCGGCTAAGAAA	qRT-PCR for rRNA processing analysis
rDNA 5.8S-F	GCAACGGATATCTCGGCTCTC	qRT-PCR for rRNA processing analysis
rDNA 5.8S-R	TGCGTTCAAAGACTCGATGG	qRT-PCR for rRNA processing analysis
rDNA 25S-F	CTACCGTGCGCTGGATTATGA	qRT-PCR for rRNA processing analysis
rDNA 25S-R	GCTTCTAGCCCGGATTCTGACT	qRT-PCR for rRNA processing analysis
rDNA P-F	CCGCCTAGGCTGTCCCGAAG	qRT-PCR for P site cleavage analysis
rDNA P-R	CGGACGAATCCAAGCCAAAG	qRT-PCR for P site cleavage analysis
rDNA P1-F	CTTTGGCTTGGATTCTGTCG	qRT-PCR for P1 site cleavage analysis
rDNA P1-R	CGTGAATTAAGTGAAGGA	qRT-PCR for P1 site cleavage analysis
rDNA P'-F	GTTGTGACGGTGAAGT	qRT-PCR for P' site cleavage analysis
rDNA P'-R	GGTCTTGACCGTCATCTTTTGC	qRT-PCR for P' site cleavage analysis
rDNA A2-F	TGAACCTGCGGAAGGATCAT	qRT-PCR for A2 site cleavage analysis
rDNA A2-R	CGCGAACCAAAGATCACCA	qRT-PCR for A2 site cleavage analysis
rDNA A3-F	AAAACCCCAGCACGAAAAGTGT	qRT-PCR for A3 site cleavage analysis
rDNA A3-R	AATGCCAGCCGTTCTGTTTG	qRT-PCR for A3 site cleavage analysis
rDNA B1-F	ATGCTGTGCTGCGAACTGAA	qRT-PCR for B1 site cleavage analysis
rDNA B1-R	GAGATATCCGTTGCCGAGAGTC	qRT-PCR for B1 site cleavage analysis
rDNA C2-F	TAAATCCGAGCCAAGGACG	qRT-PCR for C2 site cleavage analysis
rDNA C2-R	TCTACTGCTTCCGGACAAGAGC	qRT-PCR for C2 site cleavage analysis
rDNA B0-F	AACAATCCCCAATTCTACACAAGTG	qRT-PCR for B0 site cleavage analysis
rDNA B0-R	ACCTCGAGAGACGAGCTCGTGTA	qRT-PCR for B0 site cleavage analysis
45S-F	GGGGGGTGGGTGTTGAGGGAG	qRT-PCR for 45S pre-rRNA

45S-R	GAAAAAGGGGGTCCACGGAC	qRT-PCR for 45S pre-rRNA
VAR-F	GACAGACTTGTCCAAAACGCCACC	RT-PCR of rDNA variants
VAR-R	CTGGTCGAGGAATCCTGGACGATT	RT-PCR of rDNA variants
5'EF-1 $\alpha$	CTAAGGATGGTCAGACCCG	Internal control
3'EF-1 $\alpha$	CTTCAGGTATGAAGACACC	Internal control
ACT1-F	CATCAGGAAGGACTTGTACGG	Internal control
ACT1-R	GATGGACCTGACTCGTCATAC	Internal control

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<sup>a</sup>The underlined sequences denote restriction enzyme sites.