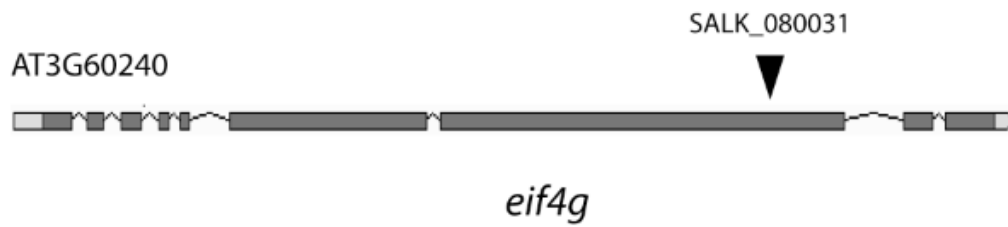
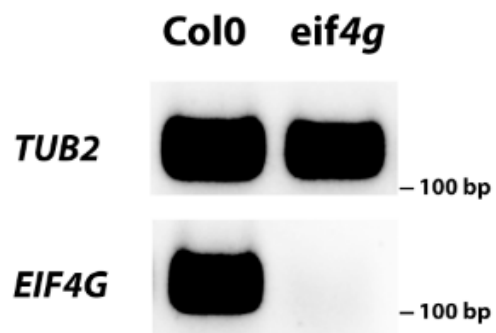
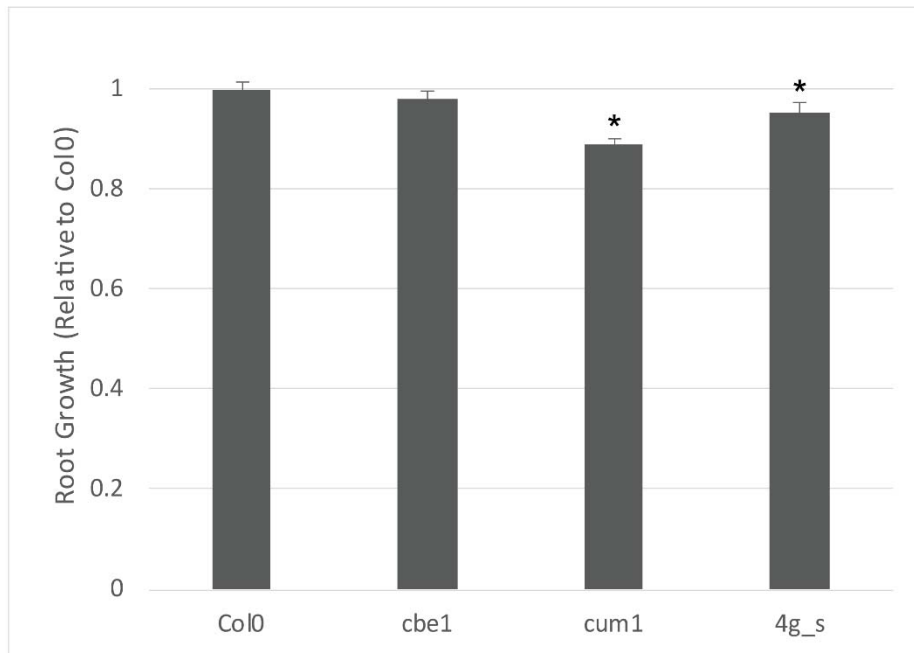


Athaliana AT3G45140.1	TPEPLKK YRKEELET LQGKN
Ahalleri Araha.47358s0001.1	TPEPLKKYRKEELETLQGKN
Bstricta Bostr.21132s0001.1	TPEPLKQFRKKELETLQGKN
Crubella Carubv10016666m	TPKPLQQLRKKKELETLQGNN
Cgrandiflora Cagra.0664s0086.1	TPKPLQQLRKKKELETLQGNN
BrapaFPsc Brara.B01571.1	TPEPLKKLRKEELETLQGNN
Klaxiflora Kalax.0400s0003.1	TPEGLKEYREKELTLMRGFG
Spolyrhiza Spipo28G0005500	TPGGLVTLREKELDTLRGDG
Vvinifera GSVIVT01025340001	TPRGLKGMREKELASLRGNG
Gmax Glyma.11G130300.1	TPEGVKRLREEELEQLRGNG
Mguttatus Migut.D00557.1	TPTALERYREKELEILRGDG
Mdomestica MDP0000300321	TPSGLAKLREEELVTLRGNG
Graimondii Gorai.009G071200.1	TPSGLKRMKEELQALRGNG
Tcacao Thecc1EG040491t1	TPGGLKRLRTEELEALRGNG
Spurpurea SapurV1A.2466s0010.1	TPNGLKKLRGAELQTIIRGND
Ptrichocarpa Potri.001G015400.1	TPSGIRRLREEELVLLRGNG
Csinensis orange1.1g002617m	TPDGLKRYRAEELTILRGNG
Cclementina Ciclev10014199m	TPDGLKRYRAEELTILRGNG
Acoerulea Aqcoe1G020300.1	TPSGIKKLREKELENLRGNG
Acomosus Aco015670.1	TPPGLERLRKKELANMRGDG
Cpapaya evm.model.supercontig_458.4	TPEGLRRLRELELENLRGNG
Ppersica Prupe.2G005500.1	TPSGLKRLRELELENLRGNG
Rcommunis 30152.m002449	TPDGLKRLREELELENLRGNG
Mesculenta Manes.07G002400.1	TPDGLKRLREGELES LRGNG
	** : * ** ::* .

SUPPLEMENTARY FIGURE 1. Alignment of proposed LOX2 eIF4E binding motif. The proposed binding site in *A. thaliana* is highlighted in red. The motif shows poor conservation in LOX2 homologs of flowering plants.

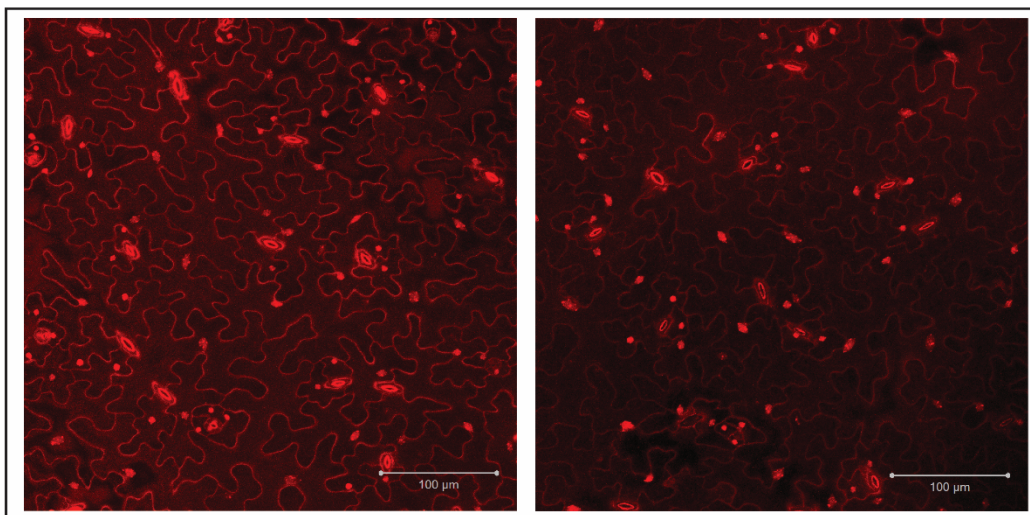
A**B**

SUPPLEMENTARY FIGURE 2. The T-DNA line *eif4g*. (A) Location of the T-DNA insertion in the seventh exon of the *EIF4G* gene. (B) RT-PCR of *TUB2* and *EIF4G* in cDNA prepared from 7-day-old Col0 and *eif4g* seedlings indicates loss of full length *EIF4G* transcript.



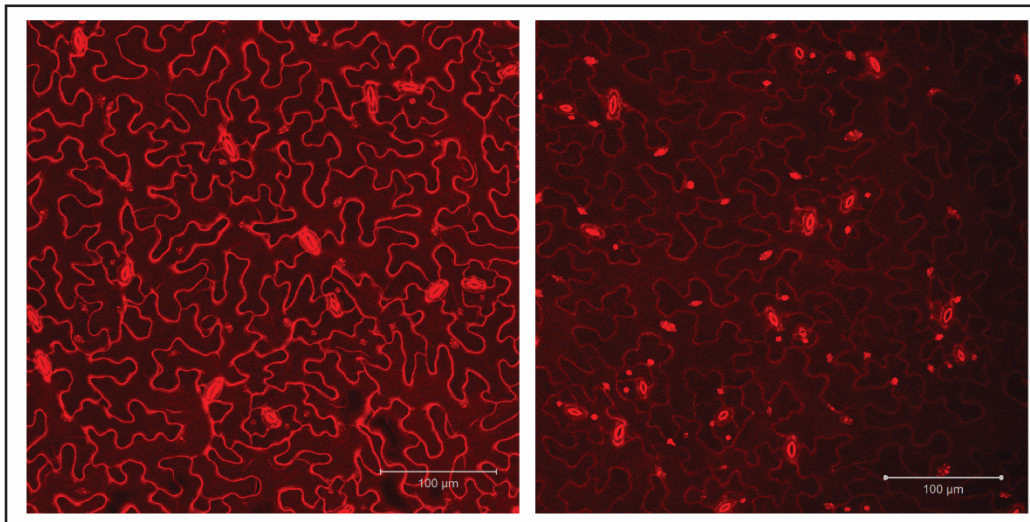
SUPPLEMENTARY FIGURE 3. Root growth of *A. thaliana* mutant lines relative to Col0 on vertically grown MS media plates with 1% sucrose for 12 days. Asterisks mark statistically significant differences from wild-type (Student's t-test, p value < 0.05, n=24).

A



Col0

B



cbe1

SUPPLEMENTARY FIGURE 4. Confocal images of plant epidermal cells co-stained with propidium iodide (cell walls) and DAPI (nuclei) from leaves of 21 day old Col0 (A) and *cbe1* mutant (B) seedlings. Scale bar is 100 μm .

SUPPLEMENTARY TABLE 2. Primers used in RT-PCR and qRT-PCR experiments.

Primer	Sequence
CYCB2.4 F	AGGATACGAGGATTGGAGCA
CYCB2.4 R	CTTGTGATGCAAACCAACCA
CDKB2.1 F	TGGCTGCATATTTGCTGAAC
CDKB2.1 R	CCTGGCCACATTTCTTCATT
CDC20.2 F	AAATGGCTGAGCTCACTGGT
CDC20.2 R	ACCTCAGGGTCTCGTCTCCT
ATK5 F	GAAGTGAGCGACTTTCAAGGA
ATK5 R	TCCTCTTTCTTTGCCAATGC
PLE F	TAGGAGCAGCAATGCATCAG
PLE R	CTGCAATGTCAAGCCCTCTT
TPX2 F	GCAAAAATGGTGGAGGAAGA
TPX2 R	CCCTTGTTGGACTTCTGAGG
EIF4G F	CAATGCCATCGATCTGAGAA
EIF4G R	ATTGAGGGTCCACGTGAAAG
CBE1 F	AGTCGAAGTTCTCCCATCCA
CBE1 R	GTCGGGATTTGCTTTTGTGT