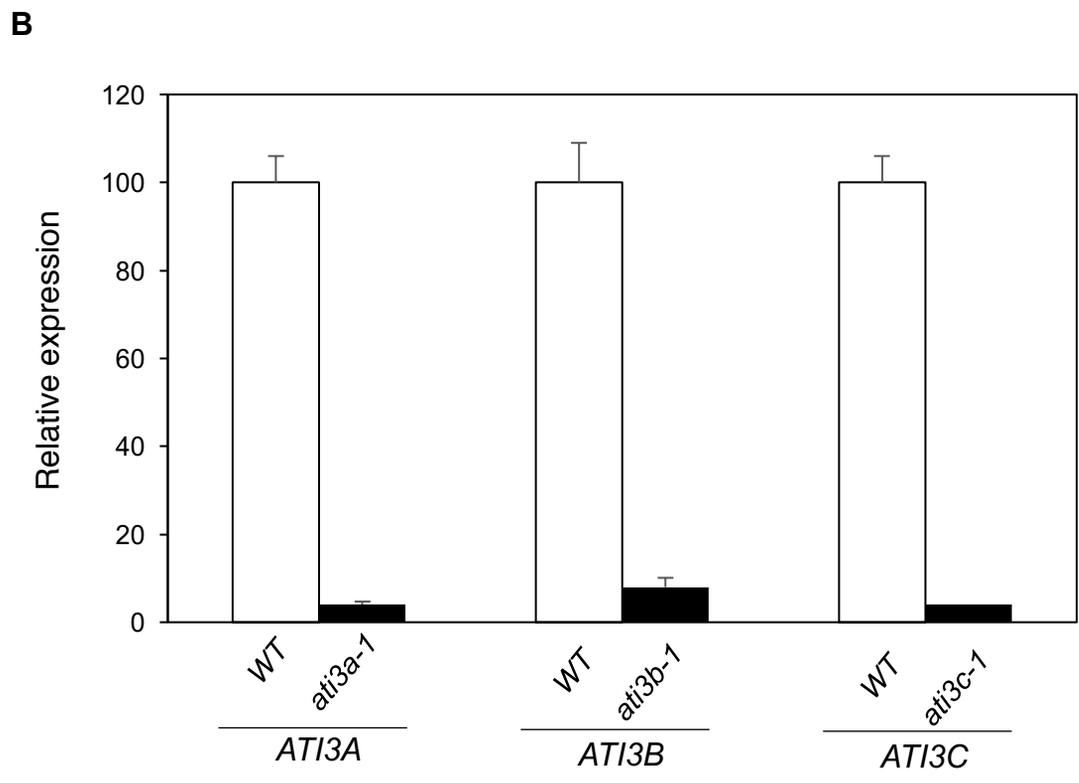
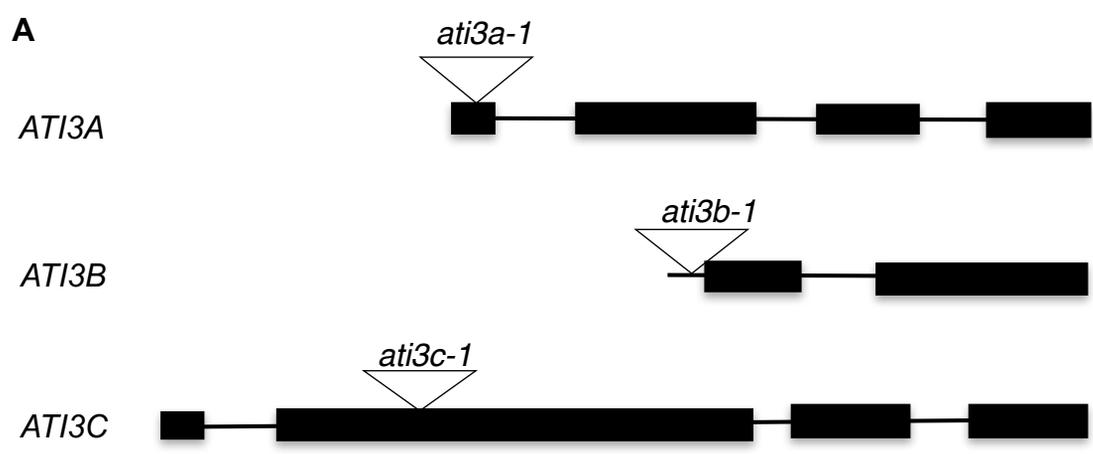


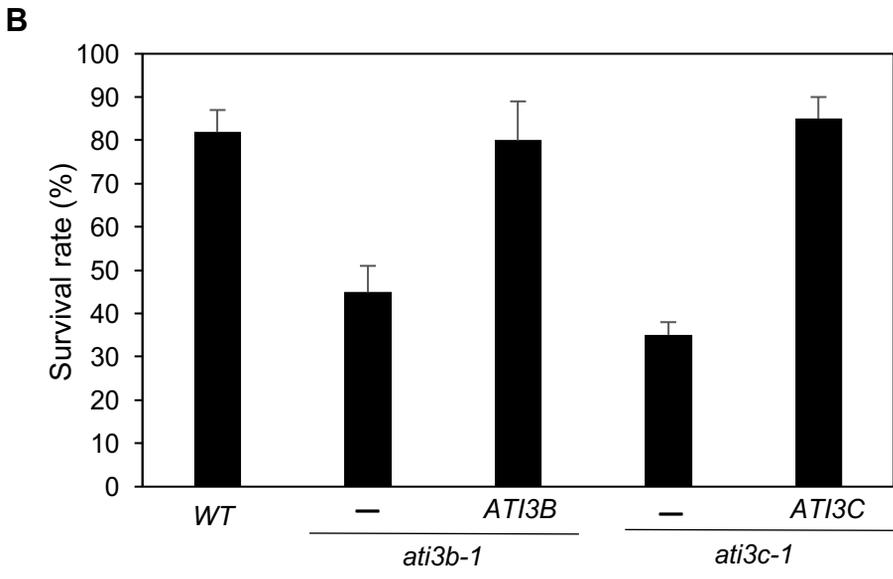
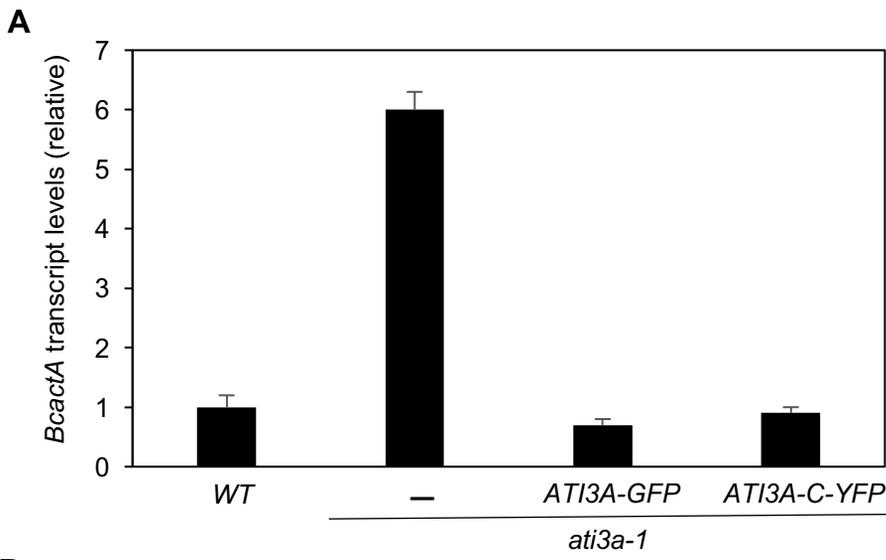
Supplemental Figure 1

AT1G17780 IDLYD-MTFREDPSDFDDNLLYAMRDRTKQLRSFKRKIMDAIKSKRRRE-KEYEQ
AT2G16575 AELCG-MESREDPLYVEDSELYAIHLRTKKLRSFKRKVLDVLTSKRRRE-KEYEQ
AT1G73130 IDLYD-MTFREDPSDFDDNLLYAMRDRTKQLRSFKRKIMDAIKSKRRRE-KEYEQ
PT001G376800 IDLSENVKLDESCVIVDNSFLYEVSRRNRRLRSYKKKIQDAFSSKKRLT-KEYEQ
PT013G118000 IQQVDKAQLEETCVLMNGDELDAS--REGKNKPYKKKIRDVFSSRKR~~SVR~~KEYEQ
MT8G463800 IQLNYDTKREDSGIFVNDRELYAVSCRIQKLSYKKRIQDAFSSKKRLA-KDYEQ
SL07G053320 VEKFDEFQLNETCVLVEEDRIHVPQGPVK-QKSYKKKLRDAFSTKKRLTRKEYEQ
SL07G062640 IDLTDKELPKESCAFIDYKLHHLVSSRPRKYKSYKELIQEAFAPRKR-IKEYEQ

AT1G17780 LAIWFGDADMG-CDLVNDKEQSTTSIDSKSSQTNVPVVSE-DSEWELL
AT2G16575 LPIWYG DAGMG-SDLATKEE--SQQVEATDSKSSLLLESE-DSQWELL
AT1G73130 LAIWFGDADMG-CDLVNDKEHATTSIDSKSSQSNVPVVSE-DSEWELL
PT001G376800 LAIWFGDLDG-HDTMQHELSSSTTITLDP--QTN---WRQ-DSEWELL
PT013G118000 LAVQFRSDPKS--NQEESKTSLMATPSIKEAKRSSSHDPS-ESEWELV
MT8G463800 LAIWFGDADIEPGQDLPPTLRRFNSRITYVNS-TNLQVQOASETEWELL
SL07G053320 LGALYGDQQIK---VESEDKVMPVLAMNSNTKMLSANDHPESEWELL
SL07G062640 LAVLYADVDAETSQHVELSQLPSLSPCLHSTESSTCNIC-EPEWELL

LIR





Supplemental Figure 4

AtUBAC2A --MNGG**PSGF**HN**APVTK**AFVITSALFTVFFFGIQGRSSK--LGLSYQD**IFEKFR**I**WKLI**MS
 AtUBAC2B --MNGG**PSGF**FN**APVTK**AFVIATALFTVFFFGIRGGSSK--LGLSYQD**IFEKFR**I**WKLI**IS
 XtUBAC2 MIA**STGS**SGLY**KAPLSK**GLLLIPSFLSIVLTFLLFQQQQLFLYNIKAI**KDDFH**I**WKLI**SG

AtUBAC2A TFAFSSTPELMFGLY**LLYFRV**ERQ**IGSN**KYSV**FIL**FSGTV**SLL**LEV**ILLS**---LLKDT
 AtUBAC2B AFAFSSTTQLLSGLY**LLYFRV**ERQ**IGSN**KYSV**FIF**FSGFV**SLI**LET**ILLS**---LTKDP
 XtUBAC2 RIICLDLKD**TFC**SSL**LIYNFR**TL**ERRF**GS**RKFTS**FLLVAVIL**SAV**DFLL**VE**AVHFILGA

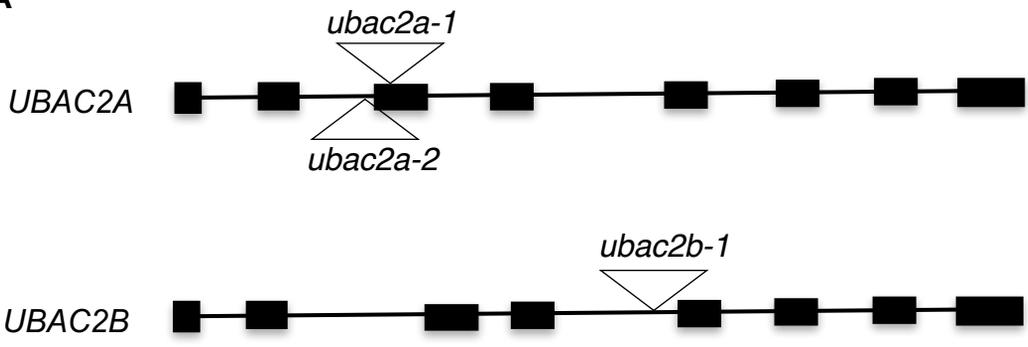
AtUBAC2A **TANLLTSG**PYGLI**FAS**F**IPF**YLDIPVSTRFRV**F**GVN-FSD**KSF**IYLAG**VQ**LL**SS**WKRSI
 AtUBAC2B **TANLLTSG**PYALV**FAS**F**VPF**FLDIPVTKRFGVL**G**VH-FSD**KSF**IYLAG**VQ**LL**SS**WKRSI
 XtUBAC2 **TLTTLPS**GF**LAPV**F**ALF**V**PF**YCSV**PRV**QLAEIL**GL**FPIT**NK**TLV**YIV**GL**QL**L**TSS**-PYML

AtUBAC2A FPG**ICGI**IAGSLYRLN**ILGIR**KAK-FPEF**VAS**FF**SRLS**FP**SFG**NSPP**PAPSR**N-----
 AtUBAC2B FTG**ICGI**IAGSLYRLN**IFGIR**KAK-FPEF**MAS**L**FSR**F**SLP**SLSS**HSQP**-PRR-----
 XtUBAC2 IV**AI**S**GLI**S**GLF**Y**TWD**VLN**VRK**ILC**IP**HW**LADL**FS**RR**LE**PI**FS**S**VE**PV**NEAR**V**GMGATVD

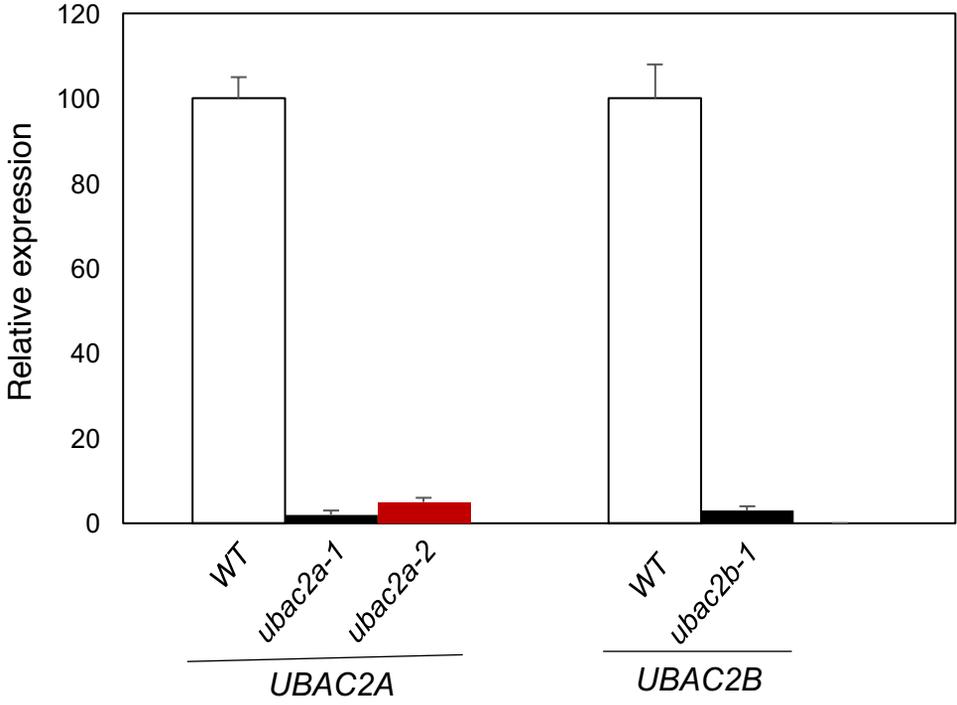
AtUBAC2A -----IVGTIS**PNTG**-----RRAERSQ**PAP**LPSS**V**EP
 AtUBAC2B -----T**SP**N**L**G-----RQAVRAYR**AP**M**P**ST**T**EP
 XtUBAC2 IQRQRIE**LLD**Q**Q**F**ML**S**QL**AHLGRR**QP**Q**Q**GGILNWN**R**L**FQ**PLRHR**N**L**GN**QA**QP**Q**D**PSPAT

AtUBAC2A **SEE**AI**TT**L**V**S**MG**F**DR**NAAR**QAL**VHAR**NDV**NA**ATN**IL**L**EAQ**SH**
 AtUBAC2B **SEE**AI**AT**L**V**S**MG**F**DQ**NAAR**QAL**VHAR**NDV**NA**ATN**IL**L**EAH**SH**
 XtUBAC2 **SEE**H**V**A**Q**L**M**E**M**G**F**S**R**AD**V**L**F**A**L**RAS**ND**I**N**I**AT**N**F**LL**Q**R---

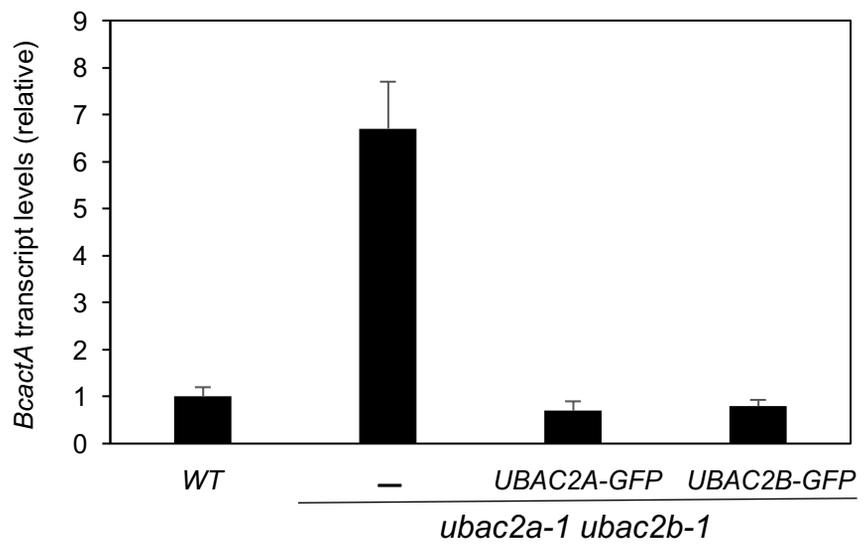
A

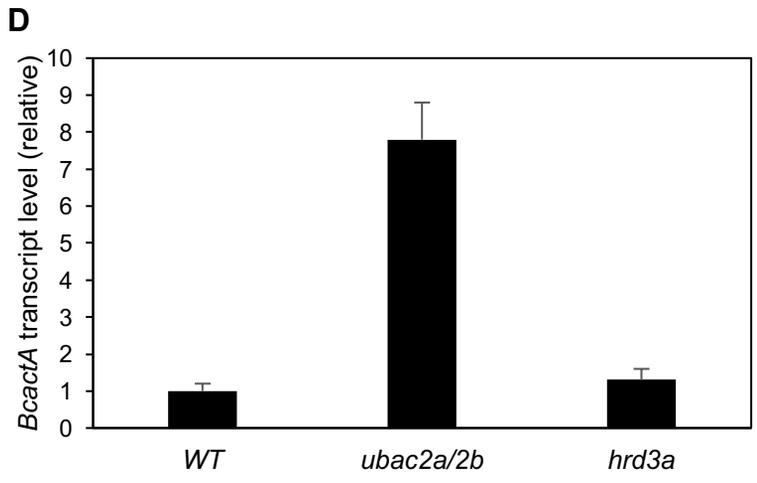
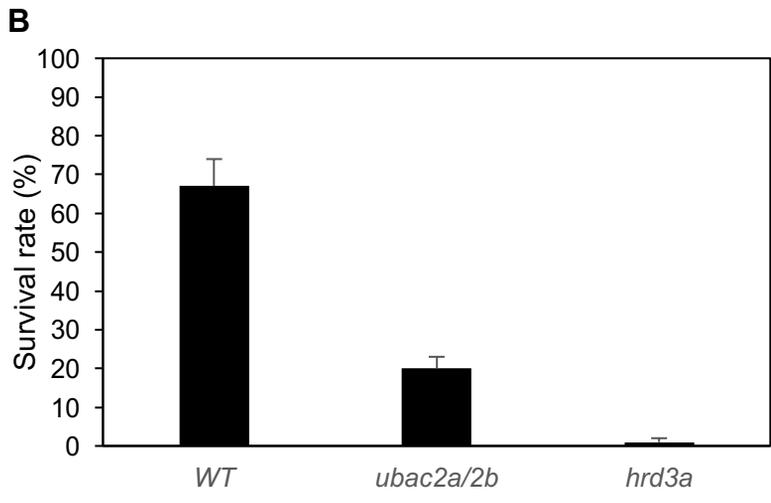


B



Supplemental Figure 6





Supplemental Figure 8

