# Supplementary files

## SUPPLEMENTARY FIGURES

```
AtJAZ9     1 MERDFLG-----------------------------LSDKQYLSNNVKHEVNDDAVEE
OsJAZ1     1 -----------------------------------------------------------
OsJAZ2     1 -----------------------------------------------------------
OsJAZ3     1 MERDFLGAIWRKEEAAGKPEEHSVSRDADYRGGGGG-ASAAMQWQFPATKVGAASSAFMS
OsJAZ4     1 MERDFLGAIGKDEEQRRHAEER---KESDYFGAGGGAAAAAMDWSF------ASRAALMS
OsJAZ5     1 ------------------------------------------------------MSTRAPVE
OsJAZ6     1 ---------------------------------------------------------M
OsJAZ7     1 --------------------------------------------------------MA
OsJAZ8     1 --------------------------------------------------------MA
OsJAZ9     1 ---------------------------------------------------------
OsJAZ10    1 ---------------------------------------------------------
OsJAZ11    1 -----------------------------------------------------MAGSSEQQ
OsJAZ12    1 ---------------------------------------------------------
OsJAZ13    1 ---------------------------------------------------------
OsJAZ14    1 ---------------------------------------------------------
OsJAZ15    1 ------------------------------------------------------MDAVGA
```

<div style="text-align:center"><span style="color:green">**CMID**</span></div>

```
AtJAZ9    30 RGLSTKAAREWGKSKVFATSSFMPSSDFQEAKAFPGAYQWG----------------SV
OsJAZ1     1 ---------MDLLEKKNIKKGGEVEEVARKGEERK----------------------EE
OsJAZ2     1 MAEERRRDDGGDVEVELSIRLRTGDDSTSADPAPAT--------------------VAA
OsJAZ3    60 FRSSAAAAREEDPKEAAVFDRFSLSGERPPPRPSPGDAFDGAAAMKQRQFGFNGRQQYAA
OsJAZ4    52 FRSSSSSAAAAAREETRELAFPHFSALDGAKMQQASHVLARQKSFGAESHGIP---QYAA
OsJAZ5     9 LDFLGLRAAAADADDRHAKSGGSSASSSSSIR------------------------GM
OsJAZ6     2 ASAK----SGERGSSSFAMACSLLSRYVRQNGAAAGELG------------------LGI
OsJAZ7     3 ASARPVGVGGER-ATSFAMACSLLSRYVRQNGAAAAELG------------------LGI
OsJAZ8     3 GRATATATAAGKDRSSFAVTCSILSQFLKEKKGGGGGLQGLGLGLRPA------PAAPPA
OsJAZ9     1 MAST------DPMTRRFAVACGVLSQYVKANSSQP---------------------ST
OsJAZ10    1 MAME------GKSR-RFAVACGVLSQYVRAEQKMA---------------------AA
OsJAZ11    9 LVANAAATTVAGNGSRFAVTCGLLRQYMKEHSGSNGGGGFLPAVTAMS------LMTGGA
OsJAZ12    1 -------MAAAGSSSRFAVTCGLLSQYMRERQQPQ------PPVTVL----------EA
OsJAZ13    1 MAAE-----AAATSRFAAACGALSQYVRAADNVH---------------------RA
OsJAZ14    1 MAVSDHHCGGGGRSWRFAVACGVLSRCVKAEA----------------------AA
OsJAZ15    7 AGGGAMLPAAARRGQPPQPPCMTTAPEQQAAAGGAVIWP-----------------AAA
```

```
AtJAZ9    73 SAANVFRR---------------------------------------------CQFGGA
OsJAZ1    30 EVVVEEK-----------------------------------------------SHQQ
OsJAZ2    40 EARRN------------------------------------------------
OsJAZ3   120 AAQHGHREQGVDSYGVAAPHHFPSPSPSPRHPVPFGHANPMLRVHSLPNV-----AGGSP
OsJAZ4   109 AAVHCAHRGQPPHVLNGARVIPASSP-------FNPNNPMFRVQSSPNLPNAVGAGGGA
OsJAZ5    43 ETSAIAR----------------------------------------------IGPH
OsJAZ6    40 RGEADAN-----------------------------------------------KGKET
OsJAZ7    44 RGECEAPRAAPATMSLLP------------------------------------GEAERKKET
OsJAZ8    57 ACACGAFRPPPTTMNLLSGLDA-------------------------PAVEVEPNT
OsJAZ9    32 AAPVAQG----------------------------------------------VSGL
OsJAZ10   31 AGAAPAR----------------------------------------------AVTT
OsJAZ11   63 DAEEEAP---------------------------------------------EVRKT
OsJAZ12   37 VAEEEEE---------------------------------------------EDART
OsJAZ13   32 RTAAAAA---------------------------------------------AVRP
OsJAZ14   35 AANCRHR---------------------------------------------HHPT
OsJAZ15   49 AAEAKEKMVVDARTMQLFPTR-------------------------------SADGV
```

<div style="text-align:right"><span style="color:blue">**TIFY**</span></div>

```
AtJAZ9    87 FQNATPLLLGGSVPLPTHPSLVPRVASSGSSPQLTIFYGGTISVFNDIS--PDKAQAIML
OsJAZ1    41 QQQQGEEELVGLSLAGGRPKVFPMSSPPPNPSQLTIFYGGSVCVYDSVP--PEKAQAIML
OsJAZ2    45 --------------------------------LTIFYNGRMCAVNVT----EL-QARTI
OsJAZ3   175 YRNQSFSVGNSVAGSTVGVYGGPRDLQNPKVTQMTIFYDGLVNVFDNIP--VEKAQELML
OsJAZ4   162 FKQPPFAMGNAVAGSTVGVYG-TRDMPKAKAAQLTIFYAGSVNVFNNVS--PEKAQELMF
OsJAZ5    54 ILRRVIAAAGPPPPPSTAPVPEEMPGAAAAAAPMTIFYNGSVAVFDVSH---DKAEAIMR
OsJAZ6    52 MELFPQNSGFG-SEAAAVKETPDAREQE--KRQLTIFYGGKVIVFDDFP--AEKAKDLMQ
OsJAZ7    71 MELFPQSAGFGQQDAITADSAADAREQEPEKRQLTIFYGGKVIVFNDFP--ADKAKGLMQ
OsJAZ8    88 AETAADELPLIKAPADQQSDESASEAAGEKAQQLTIFYGGKVVVFFNFP--STKVKDLLQ
OsJAZ9    43 MAAAAAAAAAPVVQEP-------GCEVDGGGQQFTIFYAGKVVVIDRCT--PAMAAELMR
OsJAZ10   42 ISLMPGAEVVVEEEERREVGEEEAGPATAPAAPLTIFYGGRMVVFELFP--ADKAAEVMR
OsJAZ11   75 MELFPQQ--------AGTLKDTQERKEITEKAQTIFYGGSVVVFDLFP--AEKAGELMK
```

```
OsJAZ12    49  MQLFPPR--------AAAADGVATPS--AGTAPLTIFYDGRMVVVDLVP--VEKAAELMR
OsJAZ13    43  LPLMPGADVAGDEREE----EGGGAAASSAAAQMTIFYGGRVLVLDECP--ADRAAALIR
OsJAZ14    46  MLLMPGADVEPDVREE----------AAAAQLKIMYGGRMLVFDLFFPAGGAVVELVR
OsJAZ15    75  VVSPAPAPAAAQERRRPEVHVTPSVPATAPTAPLTIVYGGQVLVFEHYT--AEAAEKLVQ

AtJAZ9    145  CAGNGLKGETGDSKPVREAERMYG------------------------------------
OsJAZ1     99  IAAAAAAASATKSNAAIAVKPPVMPAAN--------------------------------
OsJAZ2     67  ISMASQGNFGKQQQQQIQGRDDHHYHQGESSSGGGVSTAAARHCDVAGSSSSHSGSGSGS
OsJAZ3    233  LASRASIPSPPS-AARKSDSPISAAAKLTVPEALPARQIVVQKPEASVPLVSGVSNPITI
OsJAZ4    219  LASRGSLPSAPTTVARMPEAHVFPPAKVTVPEVSPTKPMMLQKPQLVSSPVPAISKPISV
OsJAZ5    111  MAIEAT------------------------------------------------------
OsJAZ6    107  MASKSSSTAQNCVLLPSS------------------------------------------
OsJAZ7    129  LASKGSPVAPQNAAAP--------------------------------------------
OsJAZ8    146  IVSTGDG-----------------------------------------------------
OsJAZ9     94  FASAAQ------------------------------------------------------
OsJAZ10   100  MASSGM------------------------------------------------------
OsJAZ11   125  LAGSRD------------------------------------------------------
OsJAZ12    97  LAGS--------------------------------------------------------
OsJAZ13    97  LAASSR------------------------------------------------------
OsJAZ14    95  AAARAG------------------------------------------------------
OsJAZ15   133  RTQHLLAAAAGG------------------------------------------------

AtJAZ9    169  -----KQIHNTAATSSSSATHTDNFSRCRDTPVAATNAMSMIESFNAAPRNMIPSVPQAR
OsJAZ1    128  --------------ATQAAVSPVLTRSLSLQSTSVATGQPQVAADPSSICKLQADLPIAR
OsJAZ2    127  ----------------------ATPPRPALVSPRAGLQAAAAAAPTMNQPPAASGLSM
OsJAZ3    292  VSQAVTLPKSFSSSNDSAGPKSGGLPLAVTPLSQASPSQPIPVATTNASAIMPRAVPQAR
OsJAZ4    279  VSQATSLPRSASSSNVDSNVTKSSGPLVVPPTSLPPPAQPETLATTTAAAIMPRAVPQAR
OsJAZ5    117  ------------------------------KAKGLARGNAIVGN-----FAKEPLTR
OsJAZ6    125  ----------------ATATVADNTKVS-AVPAPASALPVAQANAPKPVRPNAADLPQAR
OsJAZ7    145  ---------------APAAVTDNTKAPMAVPAPVSSLPTAQADAQKPARANASDMPIAR
OsJAZ8    153  -----------------------VDKNTGTAATQSLPRPAHNSLPDLPIAR
OsJAZ9    100  ----------------------------GGGGAPEAPPALVD-------MPIAR
OsJAZ10   106  ------------------------------AAAP---AQREGAA-----LADMPIMR
OsJAZ11   131  --------------------------STAAAAVSDAGAAAGQPC--LPDMPIAR
OsJAZ12   101  --------------------------------ACSPPQPAHAAA-------LPEMPIAR
OsJAZ13   103  --------------------------GVPRDDLASTAAAAGE---SADLPVAR
OsJAZ14   101  --------------------------QDVRRAGAARRRVGDSRGLDAGLPVVR
OsJAZ15   145  ---------------GGGNKNNNVTVVTPPPDEPPMLLPPPQMPAASGVSAGGVMPIAR
```

**Jas**

```
AtJAZ9    224  KASLARFLEKRKER-----IMSAMPYKKMLLDLSTGESSG--------------------
OsJAZ1    174  RHSLQRFLEKRRDR-----IVSKAPYPTKSSEGMEASGME--------------------
OsJAZ2    163  KRSLQRFLEKRKTR------AAAPLYARR*------------------------------
OsJAZ3    352  KASLARFLEKRKER-----VSSVAPYPSSKSPLESSDTIGSPSTP--------------
OsJAZ4    339  KASLARFLEKRKER-----VTIVAPYPLAKSPLESSDTMGSAND----------------
OsJAZ5    139  TKSLQRFLSKRKER-----LTSLGPYQVGGPAAVGATTST-------------------
OsJAZ6    168  KASLHRFLEKRKDR-----LQAKAPYQGSPSDASPVKKELQ------------------
OsJAZ7    189  KASLHRFLEKRKDR-----LNAKTPYQASPSDATPVKKEP-------------------
OsJAZ8    181  RNSLHRFLEKRKGR-----MNANAPYQANCTAAPSKQANG-------------------
OsJAZ9    119  KASLKRFLAKRKAT-----PASARSSYVVRAAAAEEEQPP-------------------
OsJAZ10   125  KASLQRFFAKRKDR-----LAAT-TPYARPSPAETKASEPEEKKTPTSWLD---------
OsJAZ11   157  KVSLQRFLEKRKNR-----IVVAEPLPESEKKEAESSKRA-------------------
OsJAZ12   121  KASLQRFLQKRKHR-----ITITS---EPYKKAAVASPAP-------------------
OsJAZ13   127  KASLQRFMEKRKGR-----LAARGQPYRR------------------------------
OsJAZ14   128  KVSLQRFVEKRRMRVYHILYIDKSSHHVPGPGRYRSWQCRIIIAAVAGAGGFVVACGVL
OsJAZ15   189  KASLQRFLQKRKQK*--------------------------------------------

AtJAZ9    259  ------MNYSSTSPT*--------------------------------------------
OsJAZ1    209  ------VTAEGKAQ*---------------------------------------------
OsJAZ2         -----------------------------------------------------------
OsJAZ3    392  -----SKSSCTDITPSTNNCEDSLCLGQPRNISFSSQEPPSTKLQI*-------------
OsJAZ4    378  -----NKSSCTDIALSSN-RDESLSLGQPRTISFCE-ESPSTKLQI*-------------
OsJAZ5    174  -------TTKSFLAKE----EEHTAS*---------------------------------
```

```
OsJAZ6   204  ----ESQPWLGLGPQV---AAPDLSLRQESSQ*------------------------
OsJAZ7   224  ----ESQPWLGLGPNA---VVKPIERGQ*----------------------------
OsJAZ8   216  -----DKSWLGFGQEM---TIKQEI*-------------------------------
OsJAZ9   154  -----AKKAKAAVERR----EDWLALGSLGHMHSR*---------------------
OsJAZ10  170  ----LAASASAAARR------DSLTIAL*----------------------------
OsJAZ11  192  ------KKDDGGASWL---QVNPT-LSL*----------------------------
OsJAZ12  153  ------EKSFAVAPVK---DEPATWIGL*----------------------------
OsJAZ13  151  ------HDAAAAARG------DHLAIAL*----------------------------
OsJAZ14  188  SRCVKAEAAAAAANGRRHHHHHHTTMLLMPGADVEPDVREEAAAAAQLKIMYGGRMLVF
OsJAZ15       --------------------------------------------------------

AtJAZ9        --------------------------------------------------------
OsJAZ1        --------------------------------------------------------
OsJAZ2        --------------------------------------------------------
OsJAZ3        --------------------------------------------------------
OsJAZ4        --------------------------------------------------------
OsJAZ5        --------------------------------------------------------
OsJAZ6        --------------------------------------------------------
OsJAZ7        --------------------------------------------------------
OsJAZ8        --------------------------------------------------------
OsJAZ9        --------------------------------------------------------
OsJAZ10       --------------------------------------------------------
OsJAZ11       --------------------------------------------------------
OsJAZ12       --------------------------------------------------------
OsJAZ13       --------------------------------------------------------
OsJAZ14  248  DFFPAGGAVVELVRAAARAGRDDDGARARRRPAGGEEGVAAAVRGEEKSQAARGDGAVH
OsJAZ15       --------------------------------------------------------

AtJAZ9        ----------------------
OsJAZ1        ----------------------
OsJAZ2        ----------------------
OsJAZ3        ----------------------
OsJAZ4        ----------------------
OsJAZ5        ----------------------
OsJAZ6        ----------------------
OsJAZ7        ----------------------
OsJAZ8        ----------------------
OsJAZ9        ----------------------
OsJAZ10       ----------------------
OsJAZ11       ----------------------
OsJAZ12       ----------------------
OsJAZ13       ----------------------
OsJAZ14  308  RHSPPMLPARTPGSGRTDDAAFY*
OsJAZ15       ----------------------
```

**Figure S1. Alignment of OsJAZ family proteins in rice**

Amino acid sequences of OsJAZ proteins in rice and AtJAZ9 were aligned using the ClustalW program. The semi-conserved domain, CMID, TIFY and Jas motif are underlined with green, blue and red lines. Black shading indicates identical residues and grey shading indicates less conserved residues.
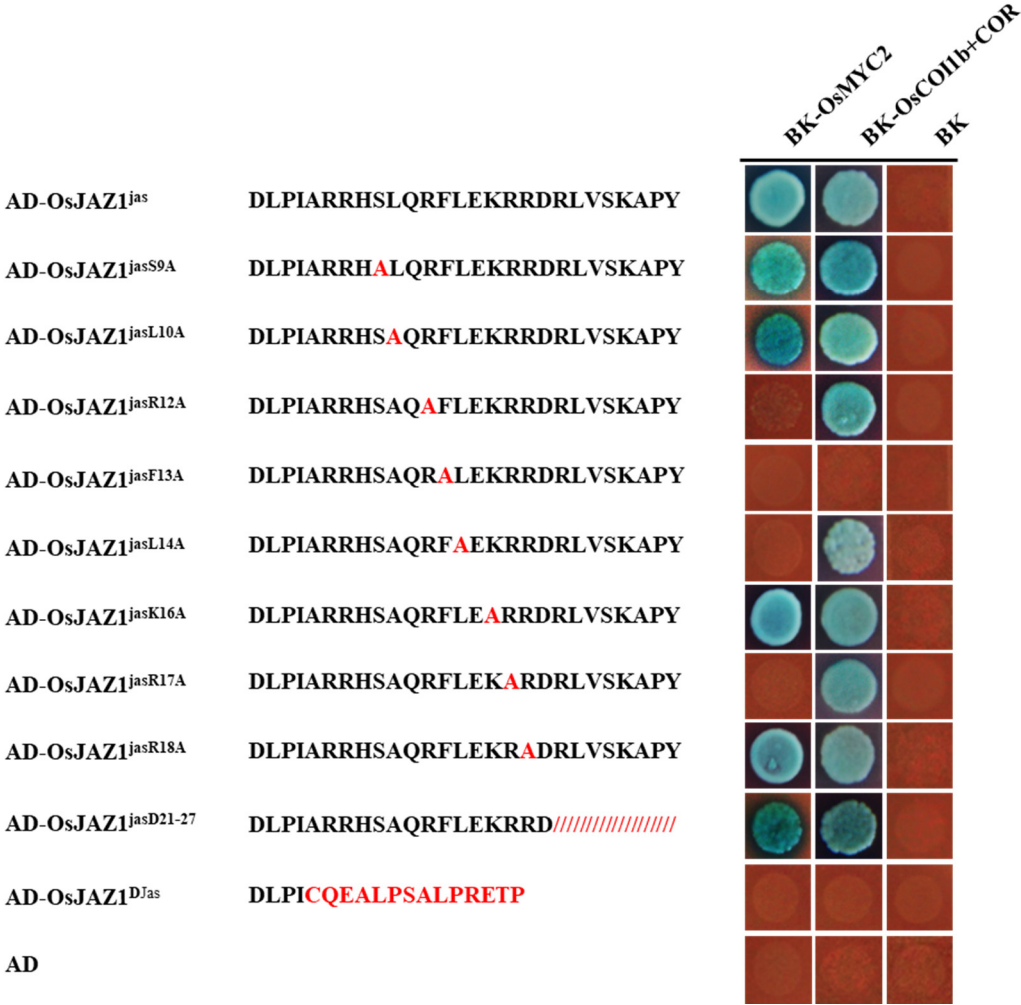
**Figure S2. Protein-protein interactions between OsJAZ1 and OsCOI1b or OsMYC2**

To detect the interaction between OsCOI1b and OsJAZ variants, 30 μM coronatine was applied in the SD -Trp/-Leu/-His/-Ade medium plates.

**Figure S3. Phenotypes of root growth under 0, 5, 10 or 15 μM MeJA treatment**

All the seeds were germinated and grown for 3 days and then treated with the different concentrations of MeJA for 5 days. Note that the root length is longer in *osjaz1^{jasDA5}* and *eg2-1D* plants than in *osjaz1^{jasDA5R6}*, *eg1* and wild type 9522 under higher MeJA treatment. Scale bars=2 cm.

**Table S1. Primers used in this study.**

Click here to Download Table S1