

OsIQM2 1 MGLSISYPDDYLPTTEED-TDQMFVRSLSDDNLSTIETFESP-----PALDLSLSQ-RPIIKESFNKKSEGDPFHVETTVSLMS  
OsIQM6 1 MGLSISYPDDYLPAEDNMGRFLFIRSLSFDDMEAAADSPSTSPMPSPSATLLPAFGSGGKLIIEGSLSFKREADPVQMETMISIRS  
OsIQM3 1 MGVLFSFVDDYDALEES-----AAAAAASSESNSGGGKP-----AAILKALGSG-KLLIEGSLSFKRDDQMSPTSLQVETEI  
OsIQM5 1 MGVLFSFVDDDETAAVED-----AAPVAEQ-----AVLKASLGSGGRLRIEGLSLFVKTREQQSLQVETKIPAVT  
OsIQM7 1 MAVATAAAGLDHAGSSR-----A-----LDAEVSSPVAG  
OsIQM8 1 MGVDAAPDRMDAASSWMN-----PPVEVSSPVAG  
OsIQM1 1 MTLRPLNTERSFLSSPKPHSPRDACSPVRSPPSTRLLACRKLPSSSKPMATGAGVLSRSLFKNWEPTAAEEAAVAPPHPDEAASRC  
OsIQM4 1 MGLH---QHAWEVGIEIFSPRSKHIAVNKISPWDQQEKMALRSN-----GALVKSLSFKEWEGGEQTKTNSVNHKNRPSLINVV

OsIQM2 80 PKPGKEKSCTHKRTILPRYG---SMEYLPHPSPVVG-MISPKHQAAAVRQKVKYSFRTRRRLADCAVIVEQRWKKLIDFALLKHNSVS  
OsIQM6 91 PKSDKE-SCSSKPNATAGASRFALAGDQTPEDSPVIAGVASPKHQAAAVRQKVKYSFRTRRRLADCAVIVEQSWWKKLIDFALLKHNSVS  
OsIQM3 75 S---IKPAAADIA-AAPRAR-----FAADGGAAAESPKEHAAAVRQKVKYSFRTRRRLADCAVIVEQSWWKKLIDFALLKHNSVS  
OsIQM5 65 S---PRAAPAPMPRELLRTR-----FADAAAAAPESPKEHAAAVRQKVKYSFRTRRRLADCAVIVEQSWWKKLIDFALLKHNSVS  
OsIQM7 29 S-----GGGGGEGDGAAATKQKMYRSYRTRRRKLADCAVIVEELWWQALDYARLSYSTIS  
OsIQM8 30 -----GGGGEGDGAAATKQKMYRSYRTRRRKLADCAVIVEELWWQALDYARLSYSTIS  
OsIQM1 91 INGAR-PGILLQQSPKAKQGDAAATSPAQAALIEFISPKPRSELDAQATKQKLFKGHRTRRRLADCAVIVEELWWKAYDSACLNKISIS  
OsIQM4 79 VDNRRNSDIFMAESSP-----IVSSSPKCELDAAAVRQKVKYSYRTRRRRLADCAVIVEELWWKALDFASLKHSSIS

OsIQM2 165 EFEEKEPEALSWSRARTRAAKVKGKLSKDEKAQKALQHWLEAIDPRHRYGHNHYYQHHLHCESKQPFYFYLWDVGEKDVSMEDHC  
OsIQM6 180 EFDIEKPEAISWSRARTRAAKVKGKLSKDEKAQKALQHWLEAIDPRHRYGHNHYYHRLHCESKQPFYFYLWDVGEKDVNLEEHC  
OsIQM3 152 EFDIEKPEAISWSRARTRAAKVKGKLSKDEKAQKALQHWLEAIDPRHRYGHNHYYDTLHCESKQPFYFYLWDVGEKKEINLEGKC  
OsIQM5 143 EFDIEKQESAVSWARARTRAAKVKGKLSKDDKAQKALQHWLEAIDPRHRYGHNHYYDCWLQCESKEPFYFYLWDVGEKKEINLEDRC  
OsIQM7 83 EHD-PNPEIVASWSRVSITASKVGGGLSRDAKARKLAFQHWLEAIDPRHRYGHNHYYDYVWCQSAGQPFYFYLWDVGEKDVLDLP-EC  
OsIQM8 81 EFDDPKPEIVASWNRVSLNASKVGGGLSRDGAQKALQHWLEAIDPRHRYGHNHYYDYVWCQSAGQPFYFYLWDVGEKDVLDLP-EC  
OsIQM1 180 EFDEAKPEIASWSRAGKRIAKVKGKLSKDEKAQKALQHWLEAIDPRHRYGHNHYYDIWSASSSTEPFYFYLWDVAGRDMHHQ-KC  
OsIQM4 151 EFNGEKPEIASWSRARTRAAKVKGKLSKNGKAQKALQHWLEAIDPRHRYGHNHYYGVWSRSESTEPFYFYLWDVGEKKEVNLD-RC

OsIQM2 255 PRWKLQQCIRYLGPKEREFIEVVIENKILLYMSRKIVDITSEGPKNSKWI FVLSTTRVLYIGTKSKGTFOHSSFLAGATSAAGRLVVD  
OsIQM6 270 PRWKLHKKQCKYLGPKERESIEVIVEDSLIYLSRQIVNTTKSRKGSKWIFVLSTCKTLYIGCKQKGTFOHSSFLAGATSAAGRLIVE  
OsIQM3 242 SRSKELSQCKYLGPKEREDIEVIEDGKFLYKSRQILDTSCGPRDAKWI FVLSTSKSLYVGCKKKGKFOHSSFLAGATSAAGRLVVE  
OsIQM5 233 PRWKLQSQCKYLGPKEREDIEVIEDGKFLYKNSREILDTSGGPRDDKWI FVLSTSKSLYVGCKKKGKFOHSSFLAGATSAAGRLVVE  
OsIQM7 171 PRAQKKQCKYLGPKQERQIEYIITKGKIIHHSYESEPLDTSQG---SKWIFVMSTTKRLYAGKKEKGVFOHSSFLAGATIAAGRTAE  
OsIQM8 170 PRARLKKQCKYLGPKQERELIEYIITEGKIIHHSGEPLDTSQGPKGTWKIFVMSTTKRLYAGKKEKGVFOHSSFLAGATIAAGRTAE  
OsIQM1 269 PRSKISQILMYLGPNEREAIEVVVEGGLVYKSGVLVNTTED---SKWIFVLSTTRSLYVGCKKKGKFOHSSFLAGATTAAGRLVAK  
OsIQM4 240 PRNKLSQSQCKYLGPKERQIEVIVESGGLVYKSGVVFVHTSD---SKWIFVLSTTKRLYVGCKKKGKFOHSSFLAGATISAGRLVVK

OsIQM2 345 NGILKAVWPHSGHYRPTIENFREEMMYLKKRNVDLANIKLSPSEDEEDECLRSRSGRSQ---LEPTEPGKPEKEEDATADDNGTTTVAAG  
OsIQM6 360 DGILKAVWPHSGHYRPTIENFQEFMNLKERNVDLTDVMLNPSEGEDDAEFSLKSSHSRQDLTELCEPDMQEHQVQTQHGADETKTSS  
OsIQM3 332 NGTLKAIWPHSGHYRPTIENFEEFKSFINDNSVDLTDVKMSPAEEDEEFWGLSKRISSES-YPKNTADNSEDQAAEAETGNSQMPRVS  
OsIQM5 323 DGTILKAIWPHSGHYRPTIENFQEFQGLKDNNDLTDVKMSPTEDEEFWSRLRSPDR-CAD--AADNTEEMNSSEQTVNCQTPEAT  
OsIQM7 258 NGVIKSIWAYSGHYKPSAENLSNFMNLEENGVDLN-----NVYEEP-----VPNKVQSPITAIIESNPPQLILPQ  
OsIQM8 260 NGVIKSIWAYSGHYKPSAENLANFMNLEENGVDLKEVEVRSSNEDYEDP-----VPNK-QNPLATVMESNPPQLILPQ  
OsIQM1 356 DGVLAQIWPYSGHYLPTIENFREIFISPLEENSVDLADVRCRCSVD-DDEFFPSF-----KKTEEKPE-----  
OsIQM4 327 DGILKAIWPHSGHYLPTIENFREIFISYLGQENGVDLADVRCRCPMDKDDEYPLL-----TKPDVTAASIATKNVEKVAA

OsIQM2 432 AAPPST-TGGEPAATPVMKRSSSGNRLQKRPPRLTLTD-----KSRLAKGVAEQDAGSFGRDLDFCKVNLFRG-GEEAEE---  
OsIQM6 420 DAPMTSTETMASTPAIRKSTSAKQLQGRPPRLLISSNTELPATHCNGRSPVHKDIDEDSTMFGECLAFCKKNLFAEEGNEEDE---  
OsIQM3 451 DEP---TCAEIDG-CDEPAATR-RVDSS-----SAVAAAENTEAE--ED---QEGGGE-----  
OsIQM5 410 ETPTEEISSQHIQETINNPSTTLPRVASSE-----GPATSNAGDNGSSEEGGEDHHRQEEGDEPSSPSS  
OsIQM7 324 NMVLENKASGSSSQVEGAEGDNAATEQAKP-----TYQRTLSGGLQSPRAT-----  
OsIQM8 335 NMIEEDKASEFPQSQAEGAESDNVPKVQTKP-----TYQRTLSGGLKSPRA-----  
OsIQM1 415 ---EAEKPTPEPTHDEIMDSSQ-----IELPEVDI-----  
OsIQM4 401 TAAAEERLTETVSDDDTHAAVDEDEGSMSEG-----EDEDADVPTATK-----

OsIQM2 504 AVVVPQEKILRLNLSRMTMNSYQLGKQLSLRWTTTGAGPRIGCVVDYPPELQFRVMEQISLTPRGAG-----PLRLGSTATPRQSPCAPL  
OsIQM6 537 LVEVPEEMIMNRINCKKATKSYQLGKQLSFQWTTTGAGPRIGCVVDYPPELQFRALBEVSLSPRG-----TRSTRFSSPRRKPLTPN  
OsIQM3 466 QAPVPREKILERINSKGMRSYQLGKQLSFRWTTTGAGPRIGCVVDYPPELQFRALBOVNLSPRS--A-----AAAS---ASSRFSSPQR  
OsIQM5 474 SSSVPREKILERINSKKEAKSYQLGKQLSFKWTTTGAGPRIVCVVDYPPELQFRALBOVNLSPRS--A-----AAAAGRPSSRFASQRS  
OsIQM7 370 -IDVPRKAILERLVKSKRESRSYQLGHKLSLKWSTTGAGPRIGCVVDYPMQLRMQALEMNVLSPPRA-----SAPSISRRLQASL  
OsIQM8 380 -ADVPREAILERLVKSGESKSYQLGHRLSLKWSTTGAGPRIGCVVDYPMQLRMQALEMNVLSPPRA-----STPSPSWRLPACL  
OsIQM1 441 ---VKEAVVENS---EDTKVAPIMASRPSFKWATANGARIGCVVDYPADLQSMALBHVNLSPRVVPS---PTTNRLPIPSRPSPKIRL  
OsIQM4 443 ---EDEHKATSSHAASTAAAAAENHLCRWNSTTGAGPRIGCVVDYPADLQSRALBHVNLSPRLAAAGVAPATRRKDPVPSRPSPGMIL

OsIQM2 589 PSPAPLYAAAGTPTS-----LLQHGA-----  
OsIQM6 618 SIPVARFGCSPTAQGDNMGLKPRQRCATWTAF-----  
OsIQM3 546 S---FNGAAPATPREALRPSPLQHLVATVAAAD-----  
OsIQM5 557 SSPMARGCSEPLTPREAFR-SHLQQGVILIR-----  
OsIQM7 446 SLSPNLPTPPEFTTTQMAAPTCKLEPATSI-----  
OsIQM8 456 SPTPNLPSP-LGPIQTSPLP---QPS-----  
OsIQM1 521 SPRLHYMGLPTPTGCKLPIPSPEIRRSRDPQFMGFQTPSVSLTLPKLGK  
OsIQM4 530 SPRLASVGRFPVP---VALTLPDFKRS-RLQ-----

**Figure S1.** amino acid sequence alignments of IQ domains in rice IQM protein sequences. The multiple alignment results indicate the highly conserved IQM domains among the eight identified rice IQM protein sequences. The IQ motif was in the red box.

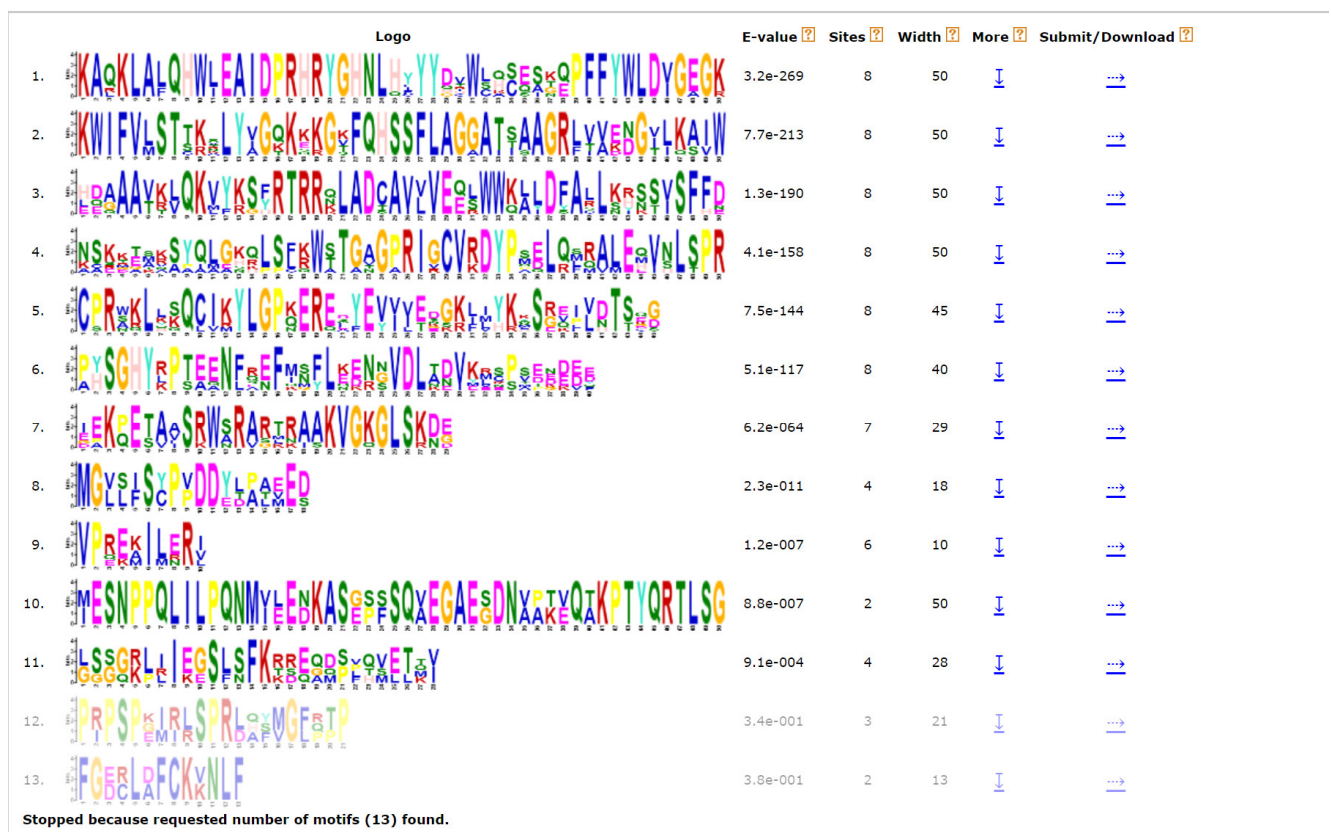


Figure S2: the conserved amino acid sequences and length of each motif.

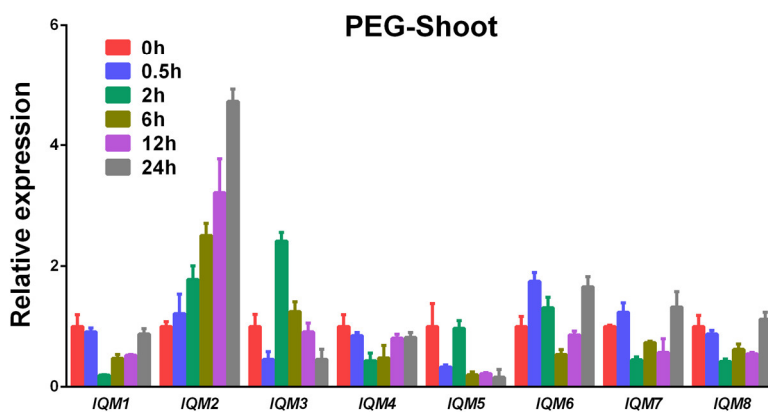
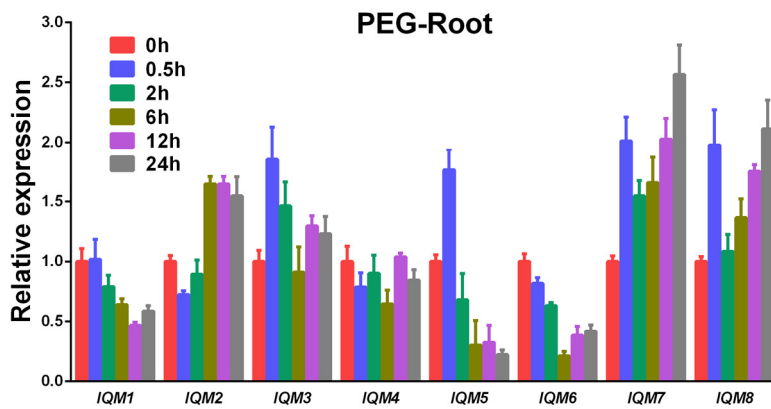
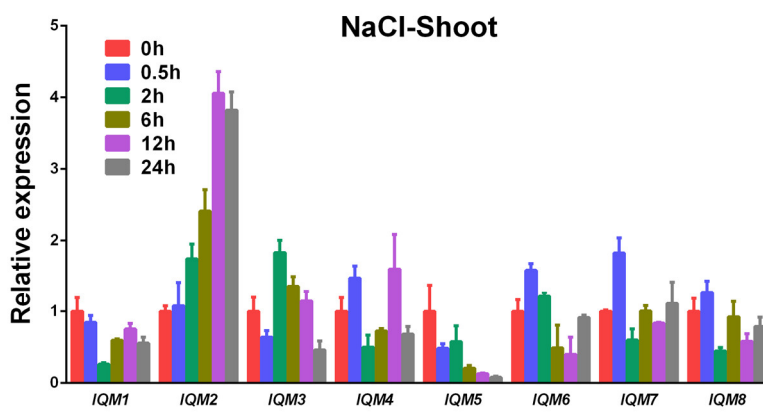
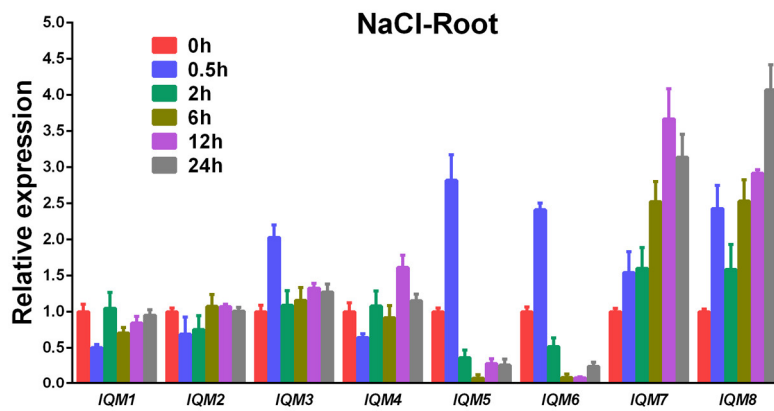


Figure S3: expression patterns of eight OsIQM genes under PEG and NaCl stress, as revealed by qRT-PCR.

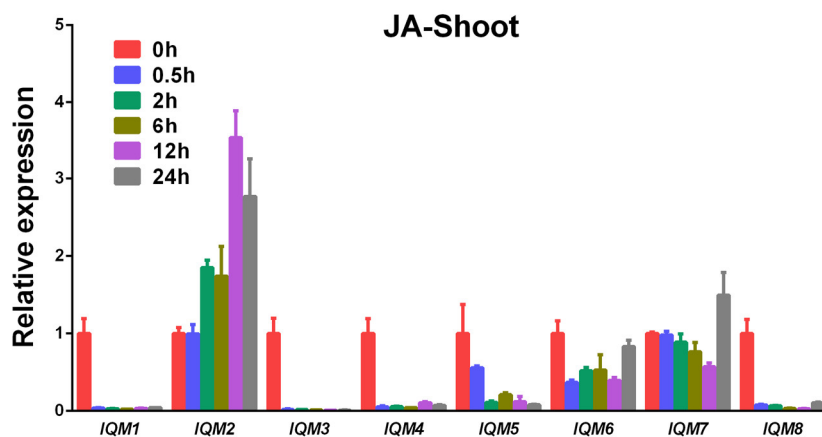
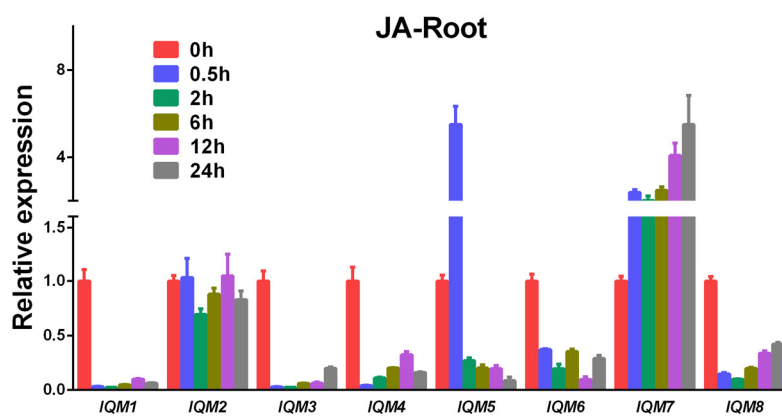
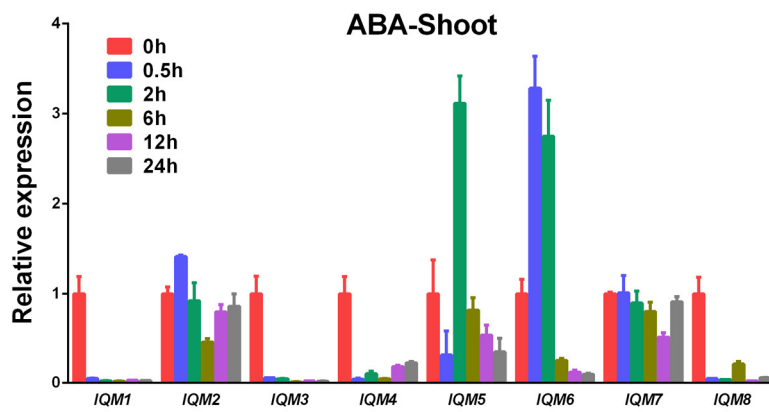
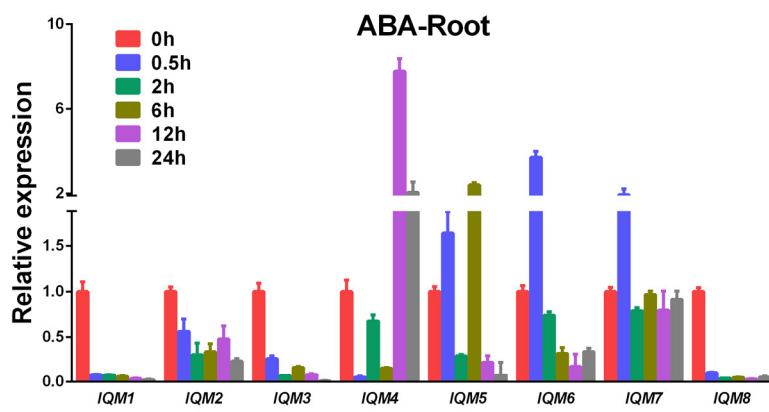


Figure S4: expression patterns of eight OsIQM genes under MeJA and ABA stress, as revealed by qRT-PCR.

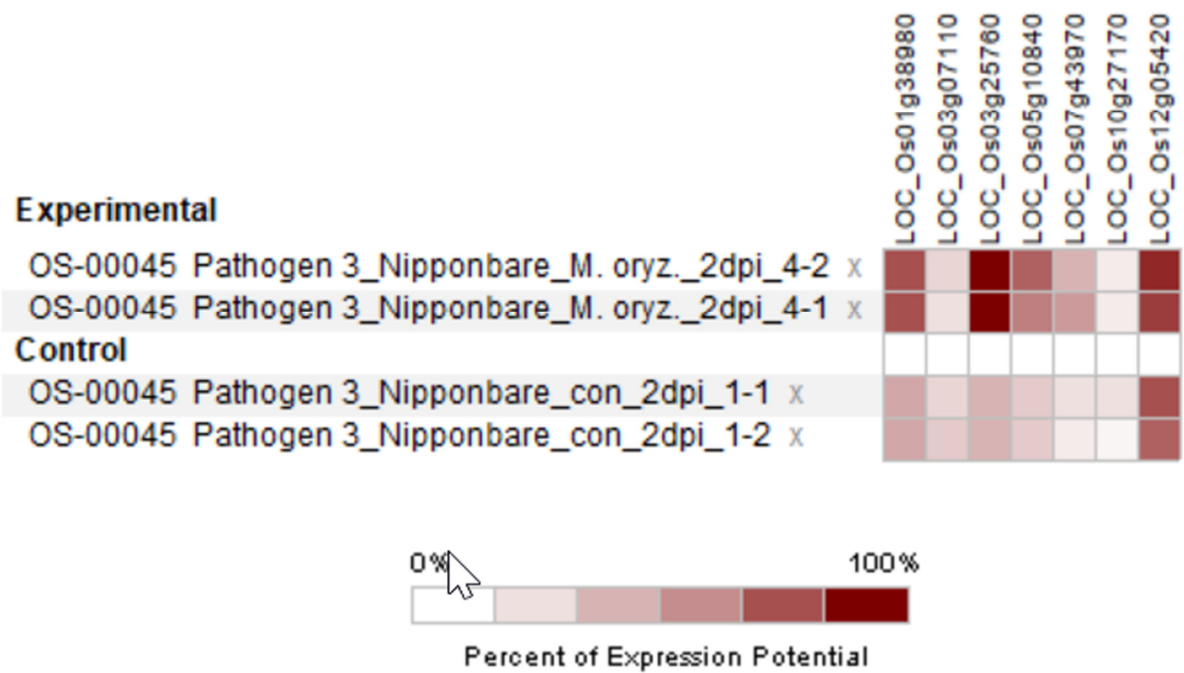


Figure S5: the expression of OsIQM1 was rapidly increased after infection of *M. oryzae* from the Genevestigator.



**Table S1. List of the primers in this study.(qRT-PCR primers).**

<b>Name</b>	<b>Sequences (5'-3')</b>
<i>eEF-1<math>\alpha</math>-F</i>	GCACGCTCTTCTTGCTTTC
<i>eEF-1<math>\alpha</math>-R</i>	AGGGAATCTTGTTCAGGGTTG
<i>OsIQM1-F</i>	GCCTGCCTAAACATCAAGTCC
<i>OsIQM1-R</i>	CTCCTACATCCAGCCAGTAAAAG
<i>OsIQM2-F</i>	CTTCTACTGGTTGGATGTGGGT
<i>OsIQM2-R</i>	TGGAGTGCTGGAATGTGCC
<i>OsIQM3-F</i>	GGCACAGAACTCGCATTACA
<i>OsIQM3-R</i>	CTCGCAGTGGAGCCAGGTA
<i>OsIQM4-F</i>	ATAGTGTCTTCCAGCCCCAAAT
<i>OsIQM4-R</i>	TCAGCGATGCAAAGTCCAAT
<i>OsIQM5-F</i>	CAAGAACACGAGCAGCCAAGGT
<i>OsIQM5-R</i>	GCAGCCAGCAGTCATAGTAGTAGT
<i>OsIQM6-F</i>	CATTGAGAAGCCCGAAACG
<i>OsIQM6-R</i>	TCACCAACATCCAACCAGTAGA
<i>OsIQM7-F</i>	TGTCGTACAGCACCATCTCCTTCC
<i>OsIQM7-R</i>	ACCCTGCCTTGGCGTCTCTTGAT
<i>OsIQM8-F</i>	CCTCCTCCCTCCACCTTAAAC
<i>OsIQM8-R</i>	ATCCAACGCTTGCCACCAG

**Vector construction primers**

<b>Name</b>	<b>Sequences (5'-3')</b>
Y2H <i>OsIQM1-F</i>	CAGTGAATTCCACCCGATGACTCTGCGGCCACTCAAC
Y2H <i>OsIQM1-R</i>	TATCGATGCCCACCCTCACTTCCCAAGCTTTGGGAGTGT
Y2H <i>OsIQM2-F</i>	CAGTGAATTCCACCCGATGGGCCTGTCAATCTCATAC
Y2H <i>OsIQM2-R</i>	TATCGATGCCCACCCTCATTAGGCTGCACCGTGCTGC
Y2H <i>OsIQM3-F</i>	CAGTGAATTCCACCCGATGGGCGTCCTCTTCTCGTG
Y2H <i>OsIQM3-R</i>	TATCGATGCCCACCCTCAGTCAGCCGCAGCGACGGT
Y2H <i>OsIQM4-F</i>	CAGTGAATTCCACCCGATGGGATTGCATCAGCATGC
Y2H <i>OsIQM4-R</i>	TATCGATGCCCACCCTCACTGCAATCTGCTCCTCTTG
Y2H <i>OsIQM5-F</i>	CAGTGAATTCCACCCGATGGGGGTGCTCTTCTCGTG
Y2H <i>OsIQM5-R</i>	TATCGATGCCCACCCTCACCTGATCAGCACTCCCTGCTG

---

Y2H <i>OsIQM6</i> -F	CAGTGAATTCCACCCGATGGGGCTGTCAATCTCAT
Y2H <i>OsIQM6</i> -R	TATCGATGCCCACCCTCATTAGAAAGCAGTCCAAGT
Y2H <i>OsIQM7</i> -F	CAGTGAATTCCACCCGATGGCGGTGGCGACGGCG
Y2H <i>OsIQM7</i> -R	TATCGATGCCCACCCTTAGATACTCGTTGCCGGTTCT
Y2H <i>OsIQM8</i> -F	CAGTGAATTCCACCCGATGGGGGTGGACGCTGCT
Y2H <i>OsIQM8</i> -R	TATCGATGCCCACCCTAACTTGGCTGGGGCAGTGAAG
Y2H <i>OsCaM1</i> -F	CAGTGAATTCCACCCGATGGCGGACCAGCTCACC
Y2H <i>OsCaM1</i> -R	TATCGATGCCCACCCTCACTTGGCCATCATGACC
<i>OsIQM1GFP</i> -F	GAGCTGCAGAAGCTTACTAGTATGACTCTGCGGCCACTCA
<i>OsIQM1GFP</i> -R	TCCACTTCCACCTCCGGTACCCTTCCCAAGCTTTGGGAGTGT
<i>OsIQM2GFP</i> -F	GAGCTGCAGAAGCTTACTAGTATGGGCCTGTCAATCTCATAC
<i>OsIQM2GFP</i> -R	TCCACTTCCACCTCCGGTACCTTAGGCTGCACCGTGCTGC
<i>OsIQM3GFP</i> -F	GAGCTGCAGAAGCTTACTAGTATGGGCGTCCTCTTCTCGTG
<i>OsIQM3GFP</i> -R	TCCACTTCCACCTCCGGTACCGTCAGCCGCAGCGACGGT
<i>OsIQM4GFP</i> -F	GAGCTGCAGAAGCTTACTAGTATGGGATTGCATCAGCATGC
<i>OsIQM4GFP</i> -R	TCCACTTCCACCTCCGGTACCCTGCAATCTGCTCCTCTTG
<i>OsIQM5GFP</i> -F	GAGCTGCAGAAGCTTACTAGTATGGGGGTGCTCTTCTCGTG
<i>OsIQM5GFP</i> -R	TCCACTTCCACCTCCGGTACCCCTGATCAGCACTCCCTGCTG
<i>OsIQM6GFP</i> -F	GAGCTGCAGAAGCTTACTAGTATGGGGCTGTCAATCTCAT
<i>OsIQM6GFP</i> -R	TCCACTTCCACCTCCGGTACCTTAGAAAGCAGTCCAAGT
<i>OsIQM7GFP</i> -F	GAGCTGCAGAAGCTTACTAGTATGGCGGTGGCGACGGCG
<i>OsIQM7GFP</i> -R	TCCACTTCCACCTCCGGTACCGATACTCGTTGCCGGTTCTAACTT
<i>OsIQM8GFP</i> -F	GAGCTGCAGAAGCTTACTAGTATGGGGGTGGACGCTGCT
<i>OsIQM8GFP</i> -R	TCCACTTCCACCTCCGGTACCACTTGGCTGGGGCAGTGAAG

---