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AthY5      -----MQEQATSSLAASSLPSSSERSSSSAPH-LEIKEIESDEE--TIRVPPEFGG 48
OsbZIP18   MLHASSKDERRGQSGEAEAEASGGVHANPSSPARMQEQATSSRPSSSERSSSSGGHHMEIKEGMSDEE--TGRVPELGL 78
OsbZIP48   -----MQRDHRSSFPAAASSSERSSDSAPNTDDGKEGVDSDDEEIVGRVPEFGL 50
OsbZIP01   -----MAAQEQEQEKQVKTSTTSSLPSSSERSSSAPNNLKEGGGVESDEE--TIRVPPEMGG 56

AthY5      EAVGKETSGRES-----GSATG-QERTQATVGE-SQKRGRTPAEKENKRLKRLLRNRVSAQQARERKKAYL 113
OsbZIP18   EPGCASTSGRAA-----GGGGGAERAQSSTAQASARRRGRSPADKEHKRLKRLLRNRVSAQQARERKKAYL 145
OsbZIP48   ALPCTSTSGRGSVRVAGDAAATAAGTSSSPAAQAGVAGSSSGRRRGRSPADKEHKRLKRLLRNRVSAQQARERKKAYM 130
OsbZIP01   G-GGSASSCAGADERQKEDGKQGGGGGGGAAAAGGGQEAPPARKRGRSAGDKEQNRLKRLLRNRVSAQQARERKKAYM 135

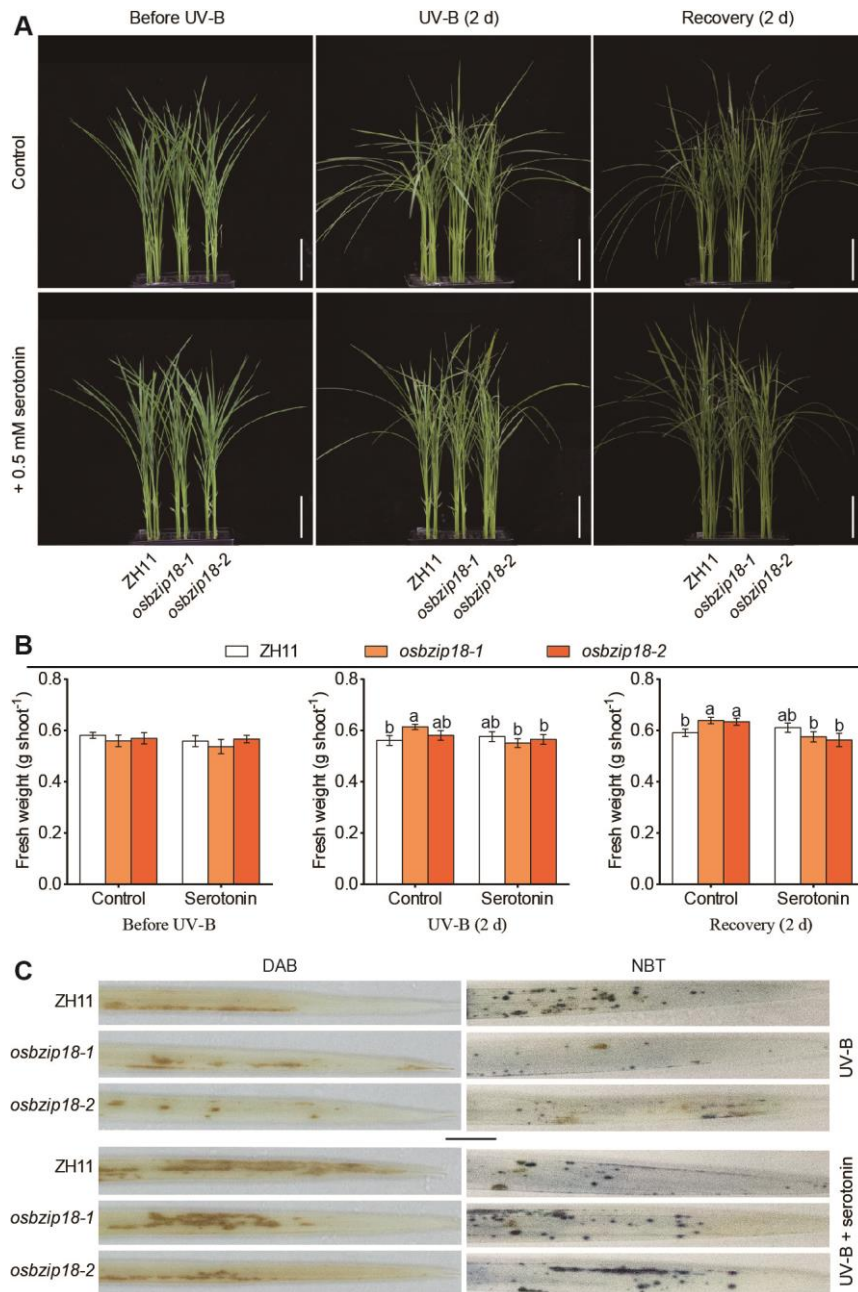
AthY5      SELENRVKDLENKNSLEERLSTLQENQMLRHILKNTTCN--KRGGGGGSNADASI----- 168
OsbZIP18   NDLEVKVKDLEKKNSLEERLSTLQENQMLRQILKNTTVS---RRGPGSTASGEGQ----- 199
OsbZIP48   SELEARVKDLERSNSLEERLSTLQENQMLRQVLKNTTAN---RRGPDSSAGGDS----- 183
OsbZIP01   TELEAKAKDLELRNAELEQRVSTLQENNTLRQILKNTTAHAGKRGGGGGKGGDGGGGGKKHHFTKS 203

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bZIP domain

Supplementary Figure S1. Protein sequence alignment of HY5 in *Arabidopsis* and rice.

The zinc-finger domain is boxed.



Supplementary Figure S2. Serotonin attenuates the UV-B stress-tolerance phenotypes of *osbzip18* mutants.

A, Phenotype comparison of *osbzip18* mutants before UV-B treatment, UV-B treatment for 2 d and after recovery from the UV-B treatment, which were grown in a nutrient solution with or without 0.5 mM serotonin. Plants were pretreated with 0.5 mM serotonin for 24 h before UV-B treatment. Scale bars=5 cm. B, The fresh weight of shoots in (A). Data are means \pm SD of nine biological replicates. Different letters indicate significant difference at $P < 0.05$. C, Accumulation of ROS in the leaves treated with UV-B or UV-B + serotonin for 36 h. Scale bars=5 mm.