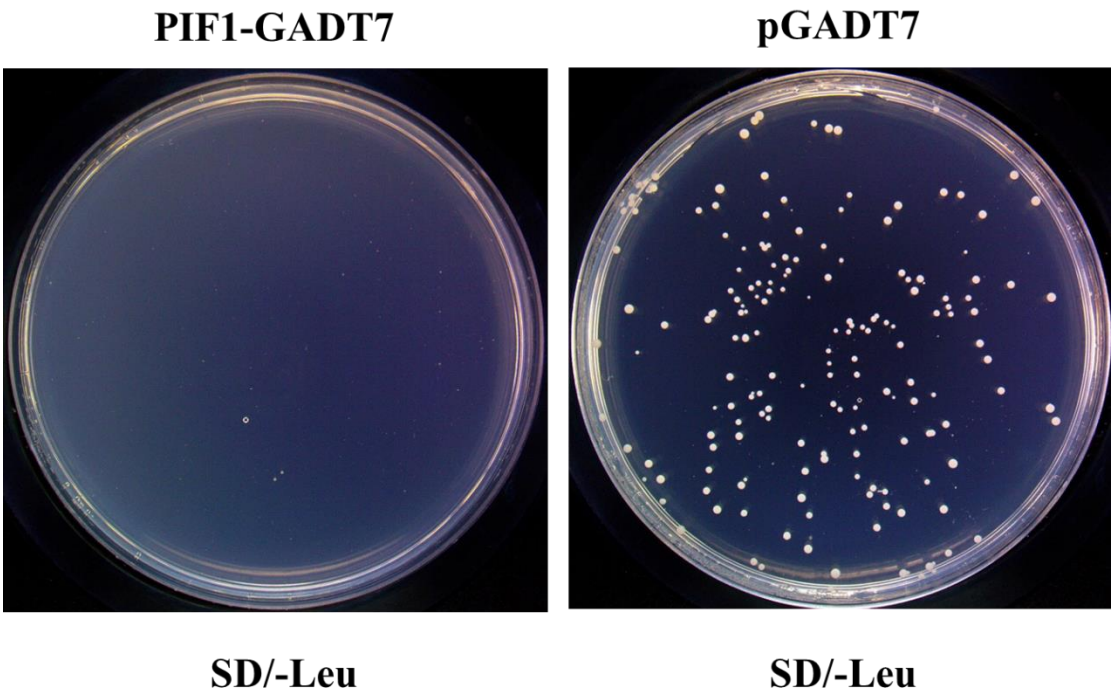


**Figure S1.** High expression of PIF1 was toxic to yeast. PIF1 was cloned into pGADT7 (named PIF1-GADT7). Yeast transformed with PIF1-GADT7 or empty control vector pGADT7 was grown for 3 d on synthetic complete medium without Leu (SD/-Leu).

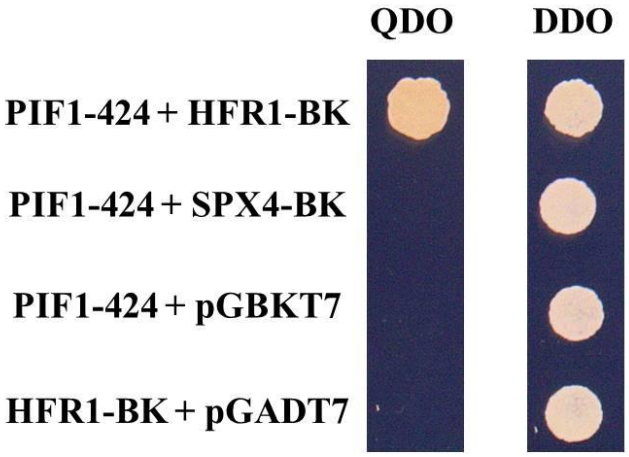


**Figure S2.** PIF1 could interact with HFR1, but not OsSPX4, in Y2H assay. PIF1 was cloned into pGAD424 (named PIF1-424). HFR1 and OsSPX4 were cloned into pGBKT7 (named HFR1-BK and SPX4-BK), respectively. Yeast transformed with the indicated plasmids were grown for 4 day on synthetic complete medium lacking Leu and Trp (DDO, right), and on medium lacking Leu, Trp, His and Ade (QDO, left).

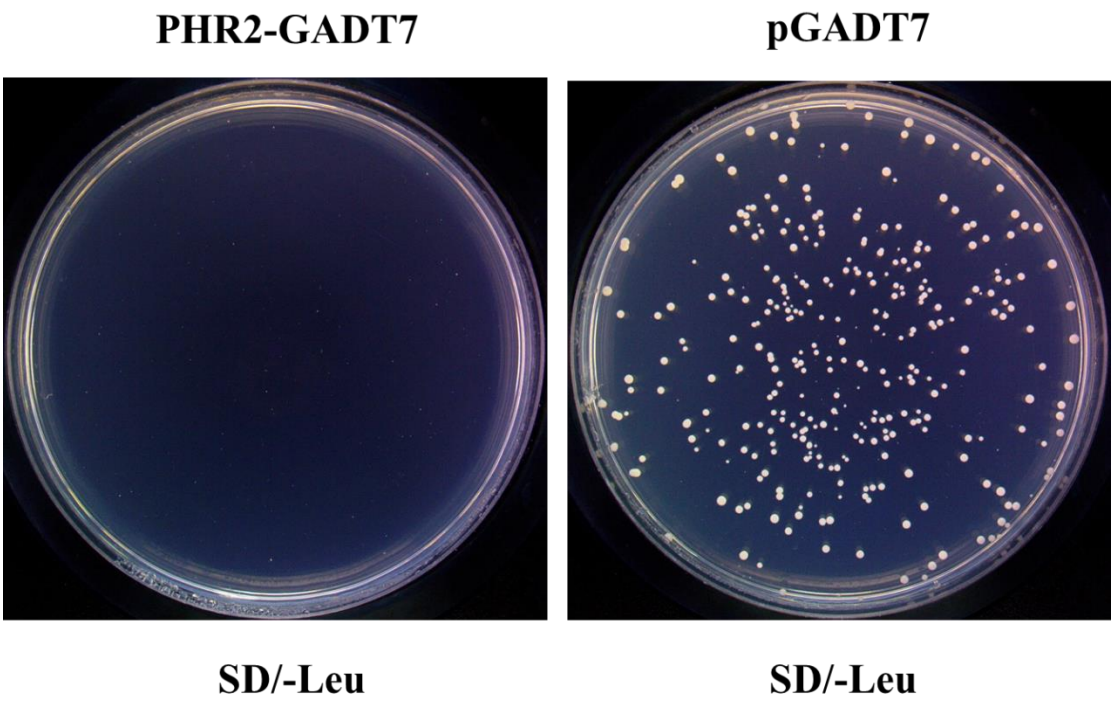


**Figure S3.** High expression of OsPHR2 was toxic to yeast. OsPHR2 was cloned into pGADT7 (named PHR2-GADT7). Yeast transformed with PHR2-GADT7 or empty control vector pGADT7 was grown for 3 d on synthetic complete medium without Leu (SD/-Leu).

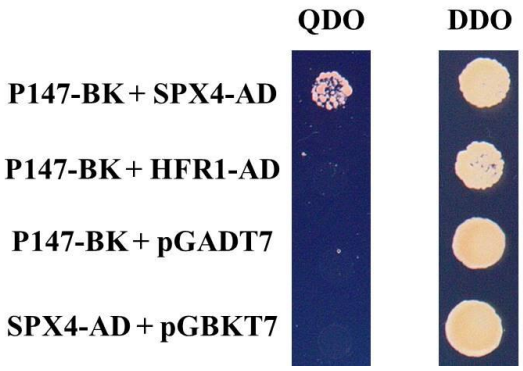


**Figure S4.** The truncated OsPHR2 (147 aa, P147) could interact with OsSPX4, but not HFR1, in Y2H assay. P147 was cloned into pGBKT7 (named P147-BK). OsSPX4 and HFR1 were cloned into pGADT7 (named SPX4-AD and HFR1-AD), respectively. Yeast transformed with the indicated plasmids were grown for 6 day on synthetic complete medium lacking Leu and Trp (DDO, right), and on medium lacking Leu, Trp, His and Ade (QDO, left).

**Table S1.** Primers and *cis*-elements used in this study.

| Primer Name | Sequence (5′-3′) |
|---|---|
| **Plasmid Constructs:** | |
| pGBKT7-NLS | |
| F | GCCGAATTCCCGGGGATCCGTCGAC |
| R | ATGGCCATATGCATCTTTCAGGAGGCTTGCTTCAAGC |
| synthesized NLS | |
| F | TATGGCGGAATTAATTCCCGAGCCTCCAAAAAAGAAGAGAA |
| AGGTCGAATTGGGTACCGCCCTCGAGGCCATGGAGGCCG | |
| R | AATTCGGCCTCCATGGCCTCGAGGGCGGTACCCAATTCGA |
| CCTTTCTCTTCTTTTTTGGAGGCTCGGGAATTAATTCCGCCA | |
| pmT7 | |
| F | GGAAGATCTAAGCTTGAAGCAAGCCTCCTG |
| R | GGAAGATCTCTGGCGTAATAGCGAAGAGGC |
| Amplification of $P_{CYC1}$ | |
| F | GGAAGATCTTCATTTGGCGAGCGTTGGTTG |
| R | GGAAGATCTTTAGTGTGTGTATTTGTGTTTGCG |
| PIF1-GADT7 | |
| F | CCGGAATTCATGCATCATTTTGTCCCTGAC |
| R | GCTCGAGCTCTTAACCTGTTGTGTGGTTTCCG |
| PIF1-424 | |
| F | CCGGAATTCATGCATCATTTTGTCCCTGAC |
| R | ATCTCTGCAGTTAACCTGTTGTGTGGTTTCCG |
| HFR1-424 | |
| F | CCGGAATTCATGTCGAATAATCAAGCTTTCATGG |
| R | CGCGGATCCTCATAGTCTTCTCATCGCATGG |
| HFR1-mT7 | |
| F | CCGCTCGAGATGTCGAATAATCAAGCTTTCATGG |
| R | CCGGAATTCTCATAGTCTTCTCATCGCATGG |
| PHR2-GADT7 | |
| F | AACCTCATATGATGGAGAGAATAAGCACCAATC |
| R | CGCGGATCCTTATCTGTCACCTGATTCTG |
| P147-GADT7 | |
| F | AACCTCATATGACCTCCAACTCCAAGACACG |
| R | CCGGAATTCTTATGAAGCATCCACCGCCTTG |
| P147-424 | |
| F | CCGGAATTCACCTCCAACTCCAAGACACG |
| R | CGCGGATCCTTATGAAGCATCCACCGCCTTG |
| SPX4-mT7 | |
| F | CCGCTCGAGATGAAATTCGGGAAGGATTTC |
| R | CGCGGATCCTCATTCATCACGTGGCTGGC |
| SPX4-424 | |
| F | CGCGGATCCGTATGAAATTCGGGAAGGATTTC |
| R | GGAAGATCTTCATTCATCACGTGGCTGGC |
| Y1H | |
| 3×P1BS-F | AGCTTCCTCAGCTCGGATATCCTCAAGATGCCCTCA |
| GCTCGGATATCCTCAAGATGCCCTCAGCTCGGATATCCTCAAGATGCG | |
| 3×P1BS-R | TCGACGCATCTTGAGGATATCCGAGCTGAGGGCATCTTGA |

GGATATCCGAGCTGAGGGCATCTTGAGGATATCCGAGCTGAGGA
4×G-box-F AGCTTGACCCATTAACACGTGGATCCATCACGTGCTG
TCAGTTTGAGGACCCATTAACACGTGGATCCATCACGTGCTGTCAGTTTGAG
4×G-box-R TCGACTCAAACTGACAGCACGTGATGGATCCACGTGTTAATGGGT
CCTCAAACTGACAGCACGTGATGGATCCACGTGTTAATGGGTCA

**Note:** Added restriction enzyme sites are underlined.