Table S4. DNA sequences of codon-optimized LOV domains.

Name	Sequence
AtPH1-LOV2	GAAAGCGTTGATGATAAGGTCAGACAGAAGGAAATGAGAAAGGGAATCGATC TCGCAACAACACTCGAAAGAATAGAAAAGAACTTTGTGATTACTGACCCTAGG CTCCCCGATAATCCCATAATCTTCGCTTCAGACAGTTTCCTGGAGCTGACAGA GTATAGCCGGGAAGAGATCCTGGGTAGAAATTGCAGATTCCTGCAGGGACCC GAGACAGACCTGACCACCGTGAAGAAGATTCGCAATGCTATCGATAATCAAAC CGAGGTTACCGTGCAACTGATAAACTACACTAAAAGCGGCAAGAAGTTCTGGA ACATTTTCCACCTGCAGCCTATGCGGGACCAGAAGGGTGAGGTCCAATATTTC ATCGGGGTGCAGCTGGATGGCAGCAAGCACGTTGAGCCCGTGCGG
AtPH2-LOV2	GATTCTTGGGATCTGAGTGATAGGGAAAGGGATATTAGACAGGGAATAGACC TCGCCACCACCCTGGAAAGAATTGAAAAGAATTTCGTGATCAGCGACCCTAGA CTGCCCGACAATCCAATCATTTTCGCCTCTGACTCTTTTCTGGAGCTGACCGA ATACTCACGCGAAGAAATCCTGGGAAGGAACTGTAGGTTCCTGCAAGGACCC GAAACCGACCAGGCCACTGTCCAGAAGATTCGCGATGCCATCCGCGACCAGC GGGAAATTACCGTTCAACTGATCAACTATACCAAATCTGGTAAGAAGTTTTGG AACCTGTTCCACCTCCAGCCTATGCGGGACCAAAAGGGCGAACTGCAATATTT CATCGGGGTGCAGCTGGACGGGTCAGATCATGTCGAGCCACTCCAG
CrPH-LOV1	GCAGGACTCAGACATACATTTGTGGTGGCTGATGCAACACTCCCTGATTGCC CACTGGTCTATGCAAGTGAGGGCTTCTACGCAATGACCGGATATGGACCTGA CGAAGTGCTGGGTCACAACTGTAGGTTTCTGCAGGGTGAGGGAACTGACCCC AAGGAAGTGCAGAAAATTCGCGACGCCATCAAGAAGGGTGAGGCTTGTAGTG TGCGCCTCCTGAACTATCGGAAGGACGGCACTCCCTTCTGGAACCTGCTGAC AGTCACCCCAATTAAAACCCCTGATGGCCGCGTGTCCAAGTTTGTCGGCGTG CAGGTGGATGTTACCTCCAAGACTGAAGGGAAAGCCCTGGCC
NcVV-LOV	CACACTCTCTACGCCCCAGGCGGGTACGATATTATGGGCTGGCTGATCCAGA TCATGAACAGGCCCAATCCCCAGGTCGAGCTGGGACCCGTGGATACTTCATG TGCACTGATACTGTGCGACCTGAAGCAGAAGGATACACCTATAGTTTACGCTT CAGAAGCCTTTCTGTACATGACAGGGTATTCTAACGCCGAGGTGCTGGGGAG GAACTGTAGGTTCCTCCAGAGTCCCGATGGTATGGTGAAACCTAAGAGTACTC GCAAATATGTGGATAGCAATACTATTAACACCATGAGGAAAGCCATCGACAGA AACGCAGAAGTTCAGGTGGAAGTGGTGAACTTTAAGAAGAACGGCCAGCGGT TCGTGAACTTTCTCACAATGATTCCAGTGCGGGACGAAACCGGGGAGTACCG GTACAGCATGGGTTTTCAGTGCGAAACCGAA
NcWC	AAGAGCATCTATAGTAAGAGCGGATTCGACATGCTGAGAGCTCTGTGGTACG

1-LOV	TGGCAAGTCGCAAAGATCCAAAGCTGAAGCTCGGAGCAGTGGATATGAGCTG CGCCTTCGTGGTTTGCGACGTGACCCTGAACGATTGCCCCATCATCTACGTC AGCGACAATTTCCAGAATCTCACCGGATATTCTCGGCACGAAATCGTGGGAA GAAACTGTAGATTTCTGCAGGCTCCCGACGGAAATGTTGAGGCTGGGACCAA ACGCGAATTTGTGGAAAACAACGCAGTGTATACCCTGAAGAAAACTATTGCTG AGGGCCAGGAGATACAACAATCCCTCATTAACTACAGAAAAGGTGGGAAACC CTTCCTCAACCTCCTGACCATGATACCAATCCCTTGGGATACTGAAGAGATAA GGTACTTTATCGGGTTTCAGATCGATCTCGTGGAATGTCCCGACGCTATCATA GGTCAGGAGGGCAATGGACCAATGCAAGTGAACTATACCCACAGT
RsLP-LOV	GCCATGGATCAGAAGCAGTTTGAGAAGATTAGAGCTGTGTTTGACAGGTCAG GGGTCGCACTGACCCTCGTTGACATGTCCCTGCCAGAGCAACCCCTGGTGCT CGCCAACCCTCCATTTCTGAGAATGACTGGCTATACTGAGGGCCAGATCCTG GGATTCAACTGCAGATTTCTCCAGAGAGGCGACGAAAATGCTCAGGCACGGG CTGACATCAGAGATGCCCTCAAGCTCGGAAGGGAGCTCCAGGTGGTCCTCCG CAATTACAGAGCCAACGATGAACCATTTGACAATCTGCTGTTCCTGCACCCTG TCGGTGGCAGACCCGACGCTCCTGACTACTTCCTCGGTTCTCAGTTCGAGCT GGGTAGAAGCGGAAATAGCGAAGAGGCAGCCGCAGCTGGACACGCAGGGG CACTGACTGGGGAGCTCGCCAGAATAGGAACTGTGGCTGCTCGGCTCGAAAT GGACAGTCGGAGACATCTGGCACAAGCTGCTGCAGCCCTGGTGAGGGCCTG GGAAAGAAGGGGT
VfAU1-LOV	CCTGACTACAGTCTCGTGAAGGCTCTGCAAATGGCACAACAGAATTTTGTCAT TACAGACGCCTCCCTCCCAGACAACCCTATCGTCTACGCCAGTAGAGGGTTT CTGACACTGACAGGCTATTCTCTCGACCAGATCCTGGGCAGGAACTGCAGGT TTCTGCAAGGGCCAGAAACAGACCCAAGAGCTGTGGATAAGATCAGGAATGC CATCACCAAAGGCGTTGATACCAGTGTCTGTCTGCTGAATTATAGACAGGATG GCACAACCTTCTGGAATCTCTTCTTCGTGGCTGGACTCAGAGATTCTAAGGGC AATATTGTCAACTACGTCGGAGTGCAGTCAAAGGTGAGCGAAGATTATGCCAA GCTGCTGGTCAACGAGCAGAACATTGAGTACAAAGGTGTGCGCACCAGTAAC ATGCTGCGCAGAAAG
NgPA1-LOV	CCAGATTATACACTCGTTAAAGCACTGCAAACTGCTCAGCAGAATTTTGTGAT CACCGACCCTACTCTGCCAGACAACCCCATTGTCTATGCTTCAGGAGGATTTC TCAGTCTCACAGGTTACCAGATGGATCAGATCCTGGGAAGAAATTGCAGATTT CTGCAAGGACCTGATACTGACCCAGCTGCCGTGGACAAGATCAGAAGGGCTA TCGAAGATGGTACAGACGGCAGTGTCTGTCTGCTGAACTACAGAGCAGATGG ATCTACCTTTTGGAATCAATTCTTCATTGCTGCTCTCAGAGGCGCTGACGGAA

	ATATCGTCAACTATGTCGGAGTGCAGTGTAAAGTGTCAGAGGAGTATGCTTCA GAAGTCCTCAAGAAGGAGGCTACTTCATCCACTGTGGCTGAAGCAAGTAGCA AAAGA
OdPA1 -LOV	CCTGACTACAGTCTGGTTAAAGCACTCCAAACAGCACAGCAGAATTTCGTTAT CTCTGACCCTAGCATTCCTGATAATCCCATTGTGTATGCTAGTCAGGGATTTCT GACACTCACCGGATACGCACTGAGCGAGGTTCTCGGACGGAACTGCCGGTTC CTCCAAGGACCAGAAACAGACCCTAAAGCCGTCGAGAAAGTGAGAAAGGGTC TGGAGAGAGGTGAAGATACCACCGTGGTGCTCCTGAATTATAGGAAAGATGG AAGCACCTTCTGGAACCAACTGTTCATTGCTGCCCTGCGGGATGGTGAGGGC AATGTGGTTAACTACCTCGGAGTTCAGTGCAAAGTCTCCGAGGACTACGCCAA AGCCTTTCTGAAGAATGAAGAGAACGAGAAA