

**Supplementary table 1.** HRPE promoters sequences used and generated in this study.

Name	Sequence
HRPE	TGAATCAGGGTGAAGAAAAACAGCGGCGGTTCTTGAATCAGGGTGAAGAAAAACA GCGGCGGTTCTTGAATCAGGGTGAAGAAAAACAGCGGCGGTTCTTGAATCAGGGTG AAGAAAAACAGCGGCGGTTCTTGAATCAGGGTGAAGAAAAACAGCGGCGGTTCTCG CAAGACCCTTCCTCTATATAAGGAAGTTCATTTCAATTTGGAGAGGTATTTTTACAACA ATTACCAACAACAACAAACAACAAGT
HRPE-Ω	TGAATCAGGGTGAAGAAAAACAGCGGCGGTTCTTGAATCAGGGTGAAGAAAAACA GCGGCGGTTCTTGAATCAGGGTGAAGAAAAACAGCGGCGGTTCTTGAATCAGGGTG AAGAAAAACAGCGGCGGTTCTTGAATCAGGGTGAAGAAAAACAGCGGCGGTTCTCG CAAGACCCTTCCTCTATATAAGGAAGTTCATTTCAATTTGGAGAGGTATTTTTACAACA ATTACCAACAACAACAAACAACA <b>CTCCGGTATTTTTACAACAATACCACAACAAA</b> <b>ACAAACAACAAACAACATTACAATTTACTATTCTAGTCTGA</b>
HRPE-ADH	TGAATCAGGGTGAAGAAAAACAGCGGCGGTTCTTGAATCAGGGTGAAGAAAAACA GCGGCGGTTCTTGAATCAGGGTGAAGAAAAACAGCGGCGGTTCTTGAATCAGGGTG AAGAAAAACAGCGGCGGTTCTTGAATCAGGGTGAAGAAAAACAGCGGCGGTTCTCG CAAGACCCTTCCTCTATATAAGGAAGTTCATTTCAATTTGGAGAGGTATTTTTACAACA ATTACCAACAACAACAAACAACA <b>ACGCCAAGTGGAAGAGCGTTCGAGAGAACA</b> <b>AGGCAAAACCAAATACGCCCTAGTATTCTACAGATGTCGACTGGATAATTACAA</b> <b>AAGATTTCAATAAACAGTACTAATTAATTTCTAGTGGTGAGTTTTGTAAATATCT</b> <b>ACTTCTTCCAATTACCAGCTGCTATATAAATCCCTTCTCTGTTTCTCTTTTCTTAC</b> <b>ATCACAATCACACAAAACAAACAAAGATCAAAAGCAAGTTCTTCACTGTTGATA</b>

**Supplementary table 2.** List of nucleotide sequences generated in this study

Name	Sequence
UnaG	CACCATGGTCGAGAAGTTCGTTGGAACCTGGAAGATCGCTGACAGCCATAACTTCG GAGAGTACCTCAAGGCTATCGGGGCTCCTAAAGAACTCTCTGATGGTGGTGATGCTA CTACCCCGACTCTCTACATCTCTCAAAGGACGGTGACAAGATGACCGTGAAGATCG AAAACGGACCTCCTACCTTCCTCGATACCCAGGTAAAGTTCAAGCTCGGGGAAGAGT TCGATGAGTTCCCATCTGATAGACGTAAGGGCGTGAAGTCTGTGGTTAACCTCGTTG GAGAGAAGCTCGTGACGTTCAAAGTGGGACGGGAAAGAGACTACCTACGTCAGA GAGATCAAGGACGGAAAGCTCGTGGTGACTCTCACTATGGGAGATGTTGTGGCTGTG AGGTCTTACAGACGTGCTACTGAATGA
iLov	CACCATGATCGAGAAGAACTTCGTGATTACCGATCCTAGGCTCCCTGACAACCCTAT CATCTTCGCTTCAGATGGCTTCCTCGAGCTGACCGAATACTCTAGAGAAGAGATCCT CGGTAGGAACGCTAGATTCTTCAAGGACCTGAGACTGATCAGGCCACCGTGCAAA AGATCAGAGATGCTATCAGGGACCAGCGTGAGACTACTGTTCACTCATCACTACA CCAAGAGCGGCAAGAGATTCTGGAACCTTCTTCATCTCCAGCCTGTGAGGGATCAGA AGGGTGAGCTTCAATACTTCATCGGAGTGCAGCTCGATGGATCTGATCACGTTTGA
Pp2FbFP	CACCATGATCAACGCTAAGCTCCTCCAGCTCATGGTCGAGCATTTCAACGATGGAAT CGTGGTGGCTGAGCAAGAGGGAAACGAGAGCATCATGATCTACGTGAACCCTGCTT TCGAGAGGCTCACTGGATACTGCGCTGATGATATCCTCTACCAGGATGCTAGATTCTT

	CCAAGGTGAGGATCACGATCAACCGGGAATCGCTATTATCCGTGAGGCTATCAGAG AGGGTAGACCTTGTTGTCAGGTGCTCCGTAACCTACCGTAAGGACGGATCTTGTTCTG GAACGAGCTTAGCATCACCCCTGTGCATAACGAGGCTGATCAGTTGACCTACTACAT CGGGATCCAGAGAGATGTGACTGCTCAGGTTTTCGCTGAAGAGAGGGTTAGAGAGC TTGAGGCTGAAGTTGCTGAGCTTAGAAGGCAACAGGGACAAGCTAAGCACTGA
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