

Supplementary Table S1. Primers used in this study

Primers	Sequence 5'-3'	Purpose
<i>BkLiP1</i> -qF	CAGAAGCACTGGAACGAGGAT	RT-qPCR analysis of <i>LiPs</i> in <i>B. kuwatsukai</i>
<i>BkLiP1</i> -qR	CACTCGGTGAGGTTGTTGATGT	
<i>BkLiP2</i> -qF	GGGTTGGTTCCTGGATGGTT	
<i>BkLiP2</i> -qR	CGGCATTATCAGAGCGAGTG	
<i>BkLiP3</i> -qF	CCACCATCCTCCTCACTT	
<i>BkLiP3</i> -qR	ATATCGTGGAGGGTGCTT	
<i>BkLiP4</i> -qF	GGCGGTCTGGACGCAAAT	
<i>BkLiP4</i> -qR	GGTGCCTTGGTCGTGGAA	
<i>BkLiP5</i> -qF	CGGTTACCTCACGAGTCTGTT	
<i>BkLiP5</i> -qR	CATAGTGGGCCTGTGCTTCT	
<i>BkLiP6</i> -qF	TTCTTCGCCGACTTCTCCAGC	
<i>BkLiP6</i> -qR	CGCCTCCTCGTTAGCCTTGC	
<i>BkLiP7</i> -qF	ACGATAAGGAAACTGGCACTG	
<i>BkLiP7</i> -qR	GGTAATCCACGGGAACTGC	
18S rRNA-F1	ACGGATCTCTTGGTTCTGG	Internal reference primers of <i>B. kuwatsukai</i>
18S rRNA-R1	GCATGCCCTTCGGAATACC	
Sp- <i>HYG</i> -F	CTTGGCTGGAGCTAGTGGAGGT	Amplification of <i>hygromycin</i> resistance gene
Sp- <i>HYG</i> -R	CCCGGTCGGCATCTACTCTATTC	
<i>HYF2</i>	CGTTGCAAGACCTGCCTGAA	
<i>YGR2</i>	GGATGCCTCCGCTCGAAGTA	
HY-T-R1	GACAGACGTCGCGGTGAGTT	Detection of <i>hygromycin</i> resistance gene
HY-T-F1	TCTGGACCGATGGCTGTGTAG	
<i>HYG</i> -177F	AGATCGTTATGTTTATCGGCACT	

HYG-827R	TTGCCGTCAACCAAGCTCT	
<i>BkLiP1</i> -Up1F	AGGTCTCTCCACTATCCCGAAT	Amplification of an upstream fragment of <i>BkLiP1</i>
<i>BkLiP1</i> -Up1R	ACCTCCACTAGCTCCAGCCAAGGTGGCGGCTGGTTTGAAA	
<i>BkLiP1</i> -Do1F	GAATAGAGTAGATGCCGACCGGGGGGACATGCAGTTTTTCG	Amplification of a downstream fragment of <i>BkLiP1</i>
<i>BkLiP1</i> -Do1R	CTCTTAATGAAGTCCAGTGG	
<i>BkLiP1</i> -Up2F	TAACCTGCTCCTGATGAGGCA	Amplification of an internal fragment of <i>BkLiP1</i>
<i>BkLiP1</i> -Do2R	CCCTTCTCGGACGTCTTCCT	
det- <i>BkLiP1</i> F	ACGGTGATTCCAACCCTGAG	Detection of <i>BkLiP1</i> mutants
det- <i>BkLiP1</i> -SPF	CATCACGAGCGTTGCTCTCAC	
det- <i>BkLiP1</i> R	GAGGCGGGTGTAGGAAGTAG	
da- <i>BkLiP1</i> F	ATGGCATGAGGGGTATCCAA	
da- <i>BkLiP1</i> R	ACACAAAACGCCAGCCCTAT	
<i>BkLiP2</i> -Up1F	ATCGTCTCCTCATCGGAAAG	Amplification of an upstream fragment of <i>BkLiP2</i>
<i>BkLiP2</i> -Up1R	ACCTCCACTAGCTCCAGCCAAGTGACAGTATGTAGAGACG	
<i>BkLiP2</i> -Do1F	GAATAGAGTAGATGCCGACCGGGGAGATGACGCCCGCTGATT	Amplification of a downstream fragment of <i>BkLiP2</i>
<i>BkLiP2</i> -Do1R	GAAAGCGCATATCACCTCAT	
<i>BkLiP2</i> -Up2F	ACTCTTGCTGCTCCAATCA	Amplification of an internal fragment of <i>BkLiP2</i>
<i>BkLiP2</i> -Do2R	ACAACAGCTGCTCATCCTGGCT	
det- <i>BkLiP2</i> F	ATGCACTTCTCCAAGTCCTCC	Detection of <i>BkLiP2</i> mutants
det- <i>BkLiP2</i> R	AATCCTGTCCGCAATTGGTG	
da- <i>BkLiP2</i> F	ACCGCCCCTCTCTATCGTTT	
da- <i>BkLiP2</i> R	CATAGTTTCGGCAGGTATCAAT	
C- <i>BkLiP1</i> -mspF	GTTTTCAAACCAGCCGCCACCATGTACCCGGGCATGGCCAAC	Amplification of a complementary fragment of <i>BkLiP1</i> and <i>BkLiP1</i> ΔSP
C- <i>BkLiP1</i> -mspR	GGTGGCGGCTGGTTTGAAAAC	
C- <i>BkLiP1</i> -Up2F	ATGTCGACCAACTCTTCTCC	

C- <i>BkLiP1</i> -Up3F	AAGAAGGCCGAGTACAACCG	
C- <i>BkLiP1</i> -Up1R	GTGCTCCTTCAATATCATCTTCTGCTTTACTCGTCCTTGAACA	
C-det-UR	CAGTCATAGCCGAATAGCCT	
C-det-DF	ACTGTTTCGCCAGGCTCAAG	
Neo-F	TGCGTTTGTCAAGCAAGGTA	Detection of <i>neomycin</i> resistance gene
Neo-R	AGCCAACGCTATGTCCTGAT	
C-Neo-F	CAGAAGATGATATTGAAGGAGCAC	
C-Neo-R	ATCCTCAGAAGAACTCGTCA	
Neo-F	TGCGTTTGTCAAGCAAGGTA	Amplification of <i>neomycin</i> resistance gene
C- <i>eoR</i>	GATCGACAAGACCGGCTTCCAT	
Pear- <i>Actin</i> -F	CTCCCAGGGCTGTGTTTCCTA	
Pear- <i>Actin</i> -R	CTCCATGTCATCCCAGTTGCT	Internal reference primers of <i>P. pyrifolia</i>
ClaI- <i>BkLiP1</i> F	CCATCGATATGAAGTTCTCCGCAGTCATC	
ClaI- <i>BkLiP1</i> -mspF	CCATCGATATGTATCCGGGCATGGCCAACGTTA	
SmaI- <i>BkLiP1</i> R	TCCCCCGGGCTCGTCCTTGAACAAGTTCCA	Construction of PVX vector
PVX-F	CAATCACAGTGTTGGCTTGC	
PVX-R	GACCCTATGGGCTGTGTTG	
KpnI-eGFP-F	GGGGTACCATGGTGAGCAAGGGCGAGGA	
SmaI-eGFP-R	TCCCCCGGGCTTGTACAGCTCGT	
SpeI- <i>BkLiP1</i> -F	GGACTAGTATGAAGTTCTCCGCAGTCAT	
SpeI- <i>BkLiP1</i> -mspF	GGACTAGTATGTATCCGGGCATGGCCAACGT	Construction of pCETNS4 vector
KpnI- <i>BkLiP1</i> -R	GGGGTACCTCTCGTCCTTGAACAAGTTCC	
KpnI-mCherry-F	GGGGTACCATGGTGAGCAAGGGCGAGGA	
SmaI-mCherryNLS-R	TCCCCCGGGCACCTTACGCTTCTTCTTCGGCTTGTACAGCTC	
EcoRI- <i>BkLiP1</i> -SP-F	CGGAATTCATGAAGTTCTCCGCAGTC	Construction of pSUC2 vector

XhoI- <i>BkLiP1</i> -SP-R	CCCTCGAGAGCAAGGGCCGGCTGGAG	
XbaI- <i>BkLiP1</i> F	GCTCTAGAATGAAGTTCTCCGCAGTCATC	
XbaI- <i>BkLiP1</i> -mspF	GCTCTAGAATGTATCCGGGCATGGCCAACGTTA	Construction of pCNF3-YFP vector
BamHI- <i>BkLiP1</i> R	CGGGATCCCTCGTCCTTGAACAAGTTCCA	
<i>NbActin</i> -qF	TGGTCGTACCACCGGTATTGTGTT	
<i>NbActin</i> -qR	TCACTTGCCCATCAGGAAGCTCAT	
<i>NbHIN1</i> -qF	CCAACTTGAACGGAGCCTATTA	
<i>NbHIN1</i> -qR	AGGCATCCAAAGAGACAACTAC	
<i>NbHSR203J</i> -qF	ACGCAGATTTCAACCGAGTAT	
<i>NbHSR203J</i> -qR	GCCAGTCGCATTGGAGATAA	
<i>NbPR1α</i> -qF	CCGCCTTCCCTCAACTCAAC	
<i>NbPR1α</i> -qR	GCACAACCAAGACGTACTGAG	
<i>NbPR2</i> -qF	AGGTGTTTGCTATGGAATGC	
<i>NbPR2</i> -qR	TCTGTACCCACCATCTTGC	RT-qPCR analysis of Marker genes in <i>N. benthamiana</i> (Zhang et al 2021)
<i>NbPR4</i> -qF	GGCCAAGATTCCTGTGGTAGAT	
<i>NbPR4</i> -qR	CACTGTTGTTTGAGTTCCTGTTTCCT	
<i>NbLOX</i> -qF	AAAACCTATGCCTCAAGAAC	
<i>NbLOX</i> -qR	ACTGCTGCATAGGCTTTGG	
<i>NbERF1</i> -qF	GCTCTTAACGTCGGATGGTC	
<i>NbERF1</i> -qR	AGCCAAACCCTAGCTCCATT	
<i>CYP71D20</i> -qF	AAGGTCCACCGCACCATGTCCTTAGAG	
<i>CYP71D20</i> -qR	AAGAATTCCTTGCCCTTGAGTACTTGC	
<i>NbPti5</i> -qF	CCTCCAAGTTTGAGCTCGGATAGT	
<i>NbPti5</i> -qR	CCAAGAAATTCTCCATGCACTCTGTC	

<i>NbAcre31</i> -qF	AATTCGGCCATCGTGATCTTGGTC
<i>NbAcre31</i> -qR	GAGAAACTGGGATTGCCTGAAGGA
<i>NbWRKY7</i> -qF	CACAAGGGTACAAACAACACAG
<i>NbWRKY7</i> -qR	GGTTGCATTTGGTTCATGTAAG
<i>NbWRKY8</i> -qF	AACAATGGTGCCAATAATGC
<i>NbWRKY8</i> -qR	TGCATATCCTGAGAAACCATT

Note: Underline for restriction site and *italics* for genes or species.