

**Table S1.** List of primers used in this work

Primer	5'-3' sequence	Fragment amplified
Dest_F SapI	TATGCTCTTCATCAGGAGATCTCATGTGAG	Spec-Ori from pGreen
Dest_R SapI	TATGCTCTTCATGTTTAATCCGGGGATCG	
FgRB_R SapI (P4) <sup>2</sup>	TATGCTCTTCATGACCAGAACCACCAATAACTG	RB from PH-1
FgRB_F XhoI	TATCTCGAGGGTCTCTACTAAGACCCAAGGACAGGTTGC	
pGPDApro_F	ATATGGTCTCAACCTCCTCACTCCACCATGTTGG	<i>gpda</i> promoter
pGPDApro_R	ATATGGTCTCATGTTTTTGAAGATTGGGTTCTCTC	
TtrpC_F	ATATGGTCTCACTGCCACTTAACGTTACTGAAATC	<i>trpC</i> terminator
TtrpC_R	ATATGGTCTCATAGTGGTACCAGTTCAAGGAAGAAACAGTGC	
Gene_F1 (P7) <sup>2</sup>	ATATGGTCTCAGGCTGTATGATCGAGCAGGACGGACTCC	<i>Geneticin</i> gene
Gene_R1 (P8) <sup>2</sup>	ATATGGTCTCACTGATCAGAAGAATTCGTCCAACAGG	
Gene_R XhoI	TATCTCGAGGGTCTCAAGGTCCTCACTCCACCATGTTGG	geneticin <sup>1-664</sup> - P <sub>gpdA</sub>
Gene_F Bsal	ATAGGTCTCACGATGTCCTGGTAGCGATCC	
Gene_F SapI (P3) <sup>2</sup>	TATGCTCTTCAACACGATGTCCTGGTAGCGATCC	geneticin <sup>1-664</sup> - P <sub>gpdA</sub> -RB
FgRB_R SapI (P4) <sup>2</sup>	TATGCTCTTCATGACCAGAACCACCAATAACTG	
TtrpC_F AgeI	ATATACCGGTGGTACCAGTTCAAGGAAGAAAC	geneticin <sup>128-795</sup> - T <sub>trpC</sub>
Gene_R2 Bsal	TATGGTCTCACCGACCAGTCCTGTTCTGTTA	
FgLB_F1	ATATGGTCTTAACAGTCTCCTTTAATCATGGAGCTGC	LB from PH-1
FgLB AgeI_R	ATATACCGGTTAGTATGGCCCAGCCCTC	
FgLB_F XhoI (P1) <sup>2</sup>	ATATCTCGAGGTCTCCTTTAATC	LB-T <sub>trpC</sub> - geneticin <sup>795-128</sup>
Gene_R XhoI (P2) <sup>2</sup>	ATATCTCGAGCCGACCAGTCC	
ProTri5_F1	ATATGGTCTCAACCTTCCTAGAATAAGACATGG	<i>Tri5</i> promoter fragment 1
ProTri5_R2	ATATGGTCTCATGTTGATGGCAAGGTTGACTGG	
ProTri5_R1	ATATGGTCTCAGTCCTTGACGTATGGACGTGCTC	<i>Tri5</i> promoter fragment 2
ProTri5_F2	ATATGGTCTCAGGACTCTCTTACGACTGTCTGG	
ProFgEffector1_F	ATATGGTCTCAACCTTCGGCTATCATACCATCAGG	<i>FgEffector1</i> promoter
ProFgEffector1_R	ATATGGTCTCATGTTGATGAACGTTTGA AAAAGGTAGTC	
PtprC_F	ATATGGTCTCAACCTAGTCGCTGCAGGAATTCG	<i>trpC</i> promoter
PtprC_R	ATATGGTCTCATGTTTTGGATGCTTGGGTAGAA	
FgEffector1_F	ATATGGTCTCAGGCTGTATGTGCACCCAGGGACTCAAGTA	<i>FgEffector1</i> gene
FgEffector1_R	ATATGGTCTCACTGATTTGCCAATGCCTGTTG	
P5	TGCTACAGACAAAACCCGCT	LB genotyping
P6 and P9 <sup>1</sup>	GCGACCTACGAGACTGAGGAATCCGCTCTTGG	
P10	AGATGGACTCCCGGACATCA	Combine with P6 for RB genotyping
P11	GTTTCATCAAACCCGTTGCC	To test insertion in TSI locus 1
P12	TTTGGAGCCCGATGCAGACAT	
O1	CATGGCGGCCGCGGGAATTCGATTAGACCATTACGGGCCTG	<i>osp24</i> promoter
O2	GTTATCGAATAGACTGTGGTGTGGATTG	
O3	ACCACAGTCTATTTCGATAACTGATATTGAAGGAGCATTTTTT	P <sub>trpC</sub> -HyG <sup>1-761</sup>
O4	GCCGCGAATTCAGTGTGATGGATGCCTCCGCTCGAAG	
O5	CATGGCGGCCGCGGGAATTCGATCGTTGCAAGACCTGCCTG	Hyg <sup>296-1027</sup>

O6	CTTGACTCCTCTCGAGGTCGACGGTATC	
O7	CGACCTCGAGAGGAGTCAAGACTGGAATC	<i>osp24</i>
O8	GCCGCGAATTCAGTAGTGATCACAATAGGAAAGTAAATTGAGATAG	terminator
O9	TTGATCGGTTTCCTGGGAGC	To test <i>osp24</i>
O10	CACAGTTTCCTCGCGTGTTG	presence
O11	CATGATATATCACATTCTCGGCGG	<i>LB genotyping</i>
O12	ACTTCTCGACAGACGTCCG	of PH-1- $\Delta$ <i>osp24</i>
O13	ACTCACCGCGACGTCTGT	<i>RB genotyping</i>
O14	CCAGTTAGTAGCCTGCCAC	of PH-1- $\Delta$ <i>osp24</i>
O15	TGGGTCTCGACCTTCTTACTCTGCAGAAATCAA	<i>osp24</i> gene
O16	TGGGTCTCGGTCCTAGTTCTCTCAATTTAGTC	fragment 1
O17	TGGGTCTCGGACTCGCAGGACTGGGATATA	<i>osp24</i> gene
O18	TGGGTCTCGTAGTCACAATAGGAAAGTAAATTGAGAT	fragment 2
FGRAMPH1_01T06815F	TGGTCGCATGATGTAACGGG	qPCR amplicon
FGRAMPH1_01T06815R	GTTGCCATGTTGGTTGTCTCA	size: 243 bp
FGRAMPH1_01T06817F	CCACATGAGGCTGGTCACTT	qPCR amplicon
FGRAMPH1_01T06817R	CAGGTCTGAAGCTGACTGGG	size: 162 bp
FGRAMPH1_01T14929F	TCAAGCGTATCTCTGCCATGAT	Histone. qPCR
FGRAMPH1_01T14929R	AAGCAGTCGACCGCAAAGA	amplicon size: 231 bp
FGRAMPH1_01T24551F	CTCCCAGCGAAAGTACTCC	Actin. qPCR
FGRAMPH1_01T24551R	TTGTTCGGTCGGGTAGCTTAG	amplicon size: 150 bp
GFP_F	GGGCACAAGCTGGAGTACAA	qPCR amplicon
GFP_R	CTCAGGTAGTGGTTGTTCGGG	size: 194 bp

<sup>1</sup>P9 is the same primer as P6, because a primer that anneals to the *trpC* terminator was select.

<sup>2</sup>Primers in brackets were also used for validation of the transformants.