

Supplementary Table 1. Sequences of primers used for gRNA cloning and PCR screening.

Name	Sequence
F1	AACATGTGCACACAGGGAGA
R1	ATGGGCAAAGTTTCAGTTGG
F1.2	ACTGAGGAATGCTGGGAGAA
R1.2	ATGGGCAAAGTTTCAGTTGG
gRNA1-F	CACCGTTCGAGGTCTTTAGGCAGCT
gRNA1-R	AAACAGCTGCCTAAAGACCTCGAAC
gRNA2-F	CACCGGCCAGGTACAGTGTCAGTGC
gRNA2-R	AAACGCACTGACACTGTACCTGGCC
F2	TTCTTACGAGACGAGAGGGTTT
R2	CATATACCTCCACGCATATATACATTA
gRNA3-F	CACCGAGAGGCCATGAATGCGAGCA
gRNA3-R	AAACTGCTCGCATTTCATGGCCTCTC
gRNA4-F	CACCGGAGAGCACTGCCCAGTGGGT
gRNA4-R	AAACACCCACTGGGCAGTGCTCTCC

Supplementary Table 2. Expected sizes for PCR products in surveyor assay.

Primers	Gene	gRNA	Full length, bp	Fragments, bp
F1 + R1	<i>Psen1</i>	sgR1	764	764, 315, 450
F1 + R1	<i>Psen1</i>	sgR2	764	764, 584, 180
F2 + R2	<i>Psen2</i>	sgR5	598	598, 347, 251
F2 + R2	<i>Psen2</i>	sgR6	598	598, 490, 108

Supplementary Table 3. Expected sizes for PCR products in PCR screening.

Primers	Gene	gRNA	Full length, bp	Cut length, bp	Cut out piece, bp
F1 + R1	<i>Psen1</i>	sgR1 + sgR2	764	495	269
F1.2 + R1.2	<i>Psen1</i>	sgR1 + sgR2	660	391	269
F2 + R2	<i>Psen2</i>	sgR3 + sgR4	598	457	141

Supplementary Table 4. Primers for qPCR analysis.

Primer name	Sequence
Psen1-F	GGTGGCTGTTTTATGTCCCAA
Psen1-R	CAACCACACCATTGTTGAGGA
Psen2-F	GAAGACTCCTACGACAGTTTTGG
Psen2-R	CACCAGGACGCTGTAGAAGAT
Aph1a-F	AGAAGCACAGTCGGTATTCA
Aph1a-R	TGCGATGTGTAGTAGACGAAGTA
Aph1b-F	TGGTCGTCATAATGCTGCACG
Aph1b-R	CACCAGATGCGTCAGGAGA
Ncstn-F	TCCGTGGTACTGGCAGGATT
Ncstn-R	CCCCTGTATCCCCACTAATTGA
Psenen-F	ATGAACTTGGAGCGGGTATCC
Psenen-R	CGAGGAACGCCTCTCTGAAG
App-F	ACCCAGATCGCCATGTTC
App-R	CCCCTTTCCATTCTGCACATTC
Bace1-F	GGAACCCATCTCGGCATCC
Bace1-R	TCCGATTCCTCGTCGGTCTC
Adam10-F	ATGGTGTGCGGACAGTGTTA
Adam10-R	GTTTGGCACGCTGGTGTTTTT
Gapdh-F	TGGCAAAGTGGAGATTGTTGCC
Gapdh-R	AAGATGGTGATGGGCTTCCCG