

**Table S1. Sequences of primers used for genotyping and semiquantitative PCRs.**

Primer Name	Sequence 5'-3'
XhoI-ScaI –Spo11 for	CTCGAGAGTACTAATCACAGCAGGGAACGTGGA
EcoRI-Spo11 rev	GAATTCGCTACTACTAGCTATGTTGC
BglII-Spo11 for	AGATCTATGAAGTGTCTCACTAGCAA
ScaI-NotI-Spo11 rev	GCGGCCCGCAGTACTCACAGGTACATTAACAGGGC
CMfor	TGTTACCCTTGTTACACCG
CMrev	CCACTCATCGCAGTACTGTT
Crefor	AATGCTTCTGTCCGTTTGCCGG
Crerev	CCAGGCTAAGTGCCTTCTCTAC
C133 (Nbs1)	GCGTAAA TGGTTGATTGTCC
W123 (Nbs1)	GATTG TCAGCACAGAAATCTTCCC
Mut2(Nbs1)	GCGCTCCCCTACCCGGTAGATT
Jam-C F1	GCTAGCCTGGTCTATTTAGCCT
Jam-C R1	CCAGTTCAGGCGATCTGA
Jam-C R4	CCGGACCTGGAGTCGTG
Spo11-2-F	GTTGGCCATGGTGAAGAGAG
Spo11-lex-R	TTTTGGTGAATCGCTTCTGA
$\beta$ -actin for	GGTCCGATGCCCTGAGGCTC
$\beta$ -actin rev	AAGGGTGTAACACGCAGCTC
LoxP-F	CGTATAATGTATGCTATACGAAG
LoxP-R	TTCCCACTGTATCCTGAGTG
NB5F	CCAGAGGTCATGAGTTCAAATC
148-r	CTACCCAGGTGAGTACTGAA