Supplementary Table 1. Guide RNA sequences used in this study

	Sequence (5' → 3')	Locus in X chromosome
gRNA1	CCGGGCCAGCGGGTATGCAG	*S* locus
gRNA2	GTCATGGGGTCCCATTACCG	*T* locus

Supplementary Table 2. Location of the genomic regions used for the targeting vectors

Vector name	Location (upstream of the fluorescent protein gene)	Location (downstream of the drug resistant gene)
phEF1-EGFP-IP-Syap1 phEF1-hKO-IZ-Syap1	Chromosome X – NC_000086.7 162853781 – 162856225 (2445bp)	Chromosome X – NC_000086.7 162851428 – 162853765 (2338bp)
phEF1-EGFP-IP-Taf1 phEF1-hKO-IZ-Taf1	Chromosome X – NC_000086.7 101625331 – 101626185 (855bp)	Chromosome X – NC_000086.7 101626196 – 101627027 (832bp)

Syap1 gene: Chromosome X – NC_000086.7 162856843-162888462 (complement)
Gm16459: Chromosome X – NC_000086.7 162844870-162845523
Taf1 gene: Chromosome X – NC_000086.7 101527572-101601789
Ogt: Chromosome X – NC_000086.7 101640011-101684351

Supplementary Table 3. Primer sets used in genomic PCR

Primer name	Sequence (5'→3')
a	AGGTCTCATCACGTAGCTCTGTCTTGCAACTC
b	CGCCATCACTGCCCAGCTATCTCCCAC
c	ACCTCCGCGCCCCGCAACCTCCCCTTCTAC
d	GAGTTCTGGACCGACCGGCTCGGGTTCTC
e	AGGCCCTCCGCCATCTTCTGAAGCTGAATC
f	TCTCGTTGGGGTCTTTGCTCAGGGC
g	GCCCTGAGCAAAGACCCCAACGAGA
h	GGTTTCGCCACCTCTGACTTGAGCGTC
i	AGGCCCTCCGCCATCTTCTGAAGCTGAATC
j	ATCTTCTTGGCGGCCTTGTAGGTGGTCTTGAAC
k	TGAGCGTGATCAAGCC
l	GGTTTCGCCACCTCTGACTTGAGCGTC
m	CTAGAGCAAAGAAGACTGTGGGTCAGGTCCCCTC
n	CTCCCTCCTCTGTTTCTTAATGTCAGCTCATGCAG
o	ACCTCCGCGCCCCGCAACCTCCCCTTCTAC
p	ATCTTCTTGGCGGCCTTGTAGGTGGTCTTGAAC
q	CCAAACTCATCAATGTATCTTATCATGTCTGGATCTG
r	TCTCGTTGGGGTCTTTGCTCAGGGC
s	GCCCTGAGCAAAGACCCCAACGAGA
t	GGTTTCGCCACCTCTGACTTGAGCGTC

u	TGTCCAAACTCATCAATGTATCTTATCATGTCTGG
v	ATCTTCTTGGCGGCCTTGTAGGTGGTCTTGAAC
w	TGAGCGTGATCAAGCC
x	GGTTTCGCCACCTCTGACTTGAGCGTC

Supplementary Table 4. Primer sets used in real-time PCR

gene name		Sequence (5'→3')
γ-tubulin	Forward	CGGACCTGTCGCCAGTTT
	Reverse	TGCGGAACTGCTCCATGA
Cdh1	Forward	ACGTCCCCCTTTACTGCTG
	Reverse	TATCCGCGAGCTTGAGATG
Cdh2	Forward	ATCAACCCCATCTCAGGACA
	Reverse	CAATGTCAATGGGGTTCTCC
Oct4	Forward	CTGTTCCCGTCACTGCTCTG
	Reverse	AACCCCAAAGCTCCAGGTTC
Nanog	Forward	ACCTGAGCTATAAGCAGGTTAAGAC
	Reverse	GTGCTGAGCCCTTCTGAATCAGAC
Tgfb1	Forward	TGAGTGGCTGTCTTTTGACG
	Reverse	GGCTGATCCCGTTGATTTC
Thy1	Forward	TCGCTCTCCTGCTCTCAGTC
	Reverse	TTATTCTCATGGCGGCAGTC
Fbxo15	Forward	CTCATCTGTCACGAAGCAGC
	Reverse	AGGTCACCGCATCCAAGTAA
Esrrb	Forward	TGGCAGGCAAGGATGACAGA
	Reverse	TTTACATGAGGGCCGTGGGA
Rex1	Forward	TTGATGGCTGCGAGAAGAG
	Reverse	ACCCAGCCTGAGGACAATC
Sox2	Forward	AGAGAAGTTTGGAGCCCGAG
	Reverse	ATCTGGCGGAGAATAGTTGG
Xist	Forward	GGTTCTCTCTCCAGAAGCTAGGAAAG
	Reverse	TGGTAGATGGCATTGTGTATTATATGG