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*Reproduction, Fertility and Development*

### Supplementary Material

#### **A comparison study of superovulation strategies for C57BL/6J and B6D2F1 mice in CRISPR-Cas9 mediated genome editing**

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Table S1. Primer, sgRNA and ssODN sequences used in this study.

Name	Sequence	PAM
Primer-s-F	AGACTCAAATGCCTCTGGGC	-
Primer-s-R	GGAGCAGTTGGCCTTAGGAG	-
gRNA-S1	TCTGCTACATAGCGATTTCA	AGG
gRNA-S2	TCGGAGGAATGTCGTTTTGC	TGG
Primer-k-F	ACACTCCCTCCATTGGTCCT	-
Primer-k-R	GCCTCTGGAGAGTTCTGAGC	-
sgRNA-K	GGTTGTCACGTTCCCAAAGA	TGG
ssODN for introducing I494V mutation	CTGCACACTCTGTAGTTTGG CTGGTGAAGCATTCGTGGAG CACTCACAAGTCATTCTTCT CTCTTTGTCTCCAGCTTCT GTATGCCACAGTCTTTGGGA ACGTGACAACCATTTCCAG CAGATGTACGCCAACACCAA CAGGTACCACGAGATGCTCA ACAGTGTCCGGGATTTCTG	-

PAM: protospacer adjacent motif

Table S2. Results of superovulation induced by administrating different dosages of eCG in the C57BL/6J and B6D2F1 strains.

Strain	eCG	hCG	No. of donors	Total No. of eggs	Average No. of eggs per mouse (Mean±SD)
C57BL/6J (5-week old)	1.25 IU	5 IU	4	15	3.8 ± 2.1
	2.5 IU	5 IU	4	39	9.8 ± 3.9
	5 IU	5 IU	4	106	26.5 ± 3.1 <sup>a</sup>
	10 IU	5 IU	4	62	15.5 ± 2.6 <sup>a</sup>
	20 IU	5 IU	4	30	7.5 ± 4.0
B6D2F1 (4-week old)	1.25 IU	5 IU	4	28	7.0 ± 6.3
	2.5 IU	5 IU	4	54	13.5 ± 3.7
	5 IU	5 IU	4	156	39.0 ± 6.5 <sup>b</sup>
	10 IU	5 IU	4	81	20.3 ± 2.1 <sup>b</sup>
	20 IU	5 IU	4	43	10.8 ± 3.5

<sup>a</sup>, values are significantly different versus C57BL/6J mice treated with 1.25 IU eCG.

<sup>b</sup>, values are significantly different versus B6D2F1 treated with 1.25 IU eCG.