Supplementary Table S1. Genotyping of *Mc1r* in G_0 mice in the C3H/HeJ background.

Sample code	Coat color*	Genotype**	Mouse selected***
1	Y	ND	
2	Y	c.97_98del/c.97_98del	
3	Y	c.93del/c.96del	
4	Y	c.98G>T/c.97del	
5	Y	c.94_96del, c.98G>T/c.94_96del, c.98G>T	✓
6	WT	+/+	
7	WT	WT/c.96del	
8	Y	c.93_98/c.93_98	
9	-	c.94_100del	
10	WT	c.94_96del/deletion (ND)	
11	Y	c.98G>T/c.94del	
12	Y	c.97del/c.97del	
13	Y	ND	
14	Y	c.98G>T/c.98G>T	
15	Y	c.98G>T/deletion (ND)	
16	Y	c.98G>T/c.91_98del	
17	Y	c.98G>T/deletion (ND)	
18	Y	deletion (ND)	
19	Y	c.98G>T/c.97_98del	
20	Y	c.97_98del/c.97_98del	✓
21	WT	c.94_95del/c.94_96del	
22	Y	c.97del/c.97del	✓
23	Y	deletion (ND)	
24	WT	+/deletion (ND)	
25	Y	c.98G>T/c.98G>T	
26	WT	+/c.97del, c.98G>T	
27	I	c.98G>T/c.98G>T	
28	WT	+/c.98G>T, deletion (ND)	
29	Y	c.98G>T/c.98G>T	
30	WT	c.97del/c.94_96del	
31	Y	c.98G>T/c.98_98del	
32	Y	ND	
33	Y	c.98G>T/deletion (ND)	
34	I	ND	
35	Y	c.98G>T/c.98G>T	
36	Y	c.98G>T/deletion (ND)	
37	WT	+/c.93_98del	
38	WT	+/deletion (ND)	
39	WT	+/deletion (ND)	
40	Y	c.98G>T/c.98G>T, c.99del	
41	WT	+/deletion (ND)	
42	I	c.98G>T/deletion (ND)	
43	WT	+/deletion (ND)	
44	WT	+/c.98G>T	✓
45	I	+/c.98G>T, deletion (ND)	
46	I	ND	
47	Y	c.98G>T/c.98G>T, deletion (ND)	
48	Y	c.98G>T/deletion (ND)	
49	Y	c.98G>T/deletion (ND)	
50	Y	ND	
51	Y	c.98G>T/c.98G>T	
52	WT	c.94_96del/c.94_96del	
53	I	+/c.98G>T, deletion (ND)	

200 fertilized embryos from 10 female mice were subjected to electroporation. After cell culture,198 injected eggs of the 2-cell stage were transferred to the oviducts of 10 pseudopregnant females, resulting in 53 offsprings.

*Coat color was temoprairly categolized into three, yellowish (Y), wild (WT), and intermediate (I) types. See Supplementary Figure S1 for detail.

**ND, genotyping was failed to determine because of ambious results in the direct sequencing probably due to complex deletion and mosaicism.

***G_0 mouse subjected to further breeding experiment was marked.