

Supplementary Table 1. Post-hoc analysis for 2-way repeated measures ANOVA on male mouse averaged body weight. Data are shown in Figure 1A and 1B.

Male	Sidak's post-hoc analysis for averaged body weight			
	Genotype Pomc ^{wt/wt} LF v Pomc ^{tm1/tm1} LF	Genotype Pomc ^{wt/wt} HF v Pomc ^{tm1/tm1} HF	Diet Pomc ^{wt/wt} LF v Pomc ^{wt/wt} HF	Diet Pomc ^{tm1/tm1} LF v Pomc ^{tm1/tm1} HF
Days on Diet	F (1,22) = 9.3 P = 0.0058	F (1,22) = 5.2 P = 0.0317	F (1,22) = 15.27 P = 0.0008	F (1,22) = 17.67 P = 0.0004
0	ns	ns	ns	ns
2	ns	ns	ns	ns
4	ns	ns	ns	ns
7	ns	ns	p < 0.01	p < 0.05
9	ns	ns	p < 0.01	p < 0.01
11	ns	ns	p < 0.01	p < 0.01
14	ns	ns	p < 0.01	p < 0.01
16	p < 0.05	ns	p < 0.05	p < 0.05
18	p < 0.05	ns	p < 0.01	p < 0.01
21	p < 0.01	ns	p < 0.001	p < 0.001
23	p < 0.01	ns	p < 0.001	p < 0.01
25	p < 0.001	p < 0.05	p < 0.001	p < 0.001
28	p < 0.001	p < 0.05	p < 0.0001	p < 0.0001
30	p < 0.01	p < 0.01	p < 0.001	p < 0.0001
32	p < 0.001	p < 0.01	p < 0.0001	p < 0.0001
35	p < 0.01	p < 0.01	p < 0.0001	p < 0.0001
Weeks on Diet	F (1,22) = 22.12 P = 0.0001	F (1,22) = 16.24 P = 0.0006	F (1,22) = 34.39 P < 0.0001	F (1,22) = 48.84 P < 0.0001
0	ns	ns	ns	ns
1	ns	ns	ns	ns
2	ns	ns	ns	ns
3	p < 0.05	ns	p < 0.05	ns
4	p < 0.01	ns	p < 0.01	ns
5	p < 0.01	ns	p < 0.01	p < 0.01
6	p < 0.001	ns	p < 0.001	p < 0.001
7	p < 0.001	p < 0.01	p < 0.0001	p < 0.0001
8	p < 0.0001	p < 0.01	p < 0.0001	p < 0.0001
9	p < 0.0001	p < 0.001	p < 0.0001	p < 0.0001
10	p < 0.0001	p < 0.001	p < 0.0001	p < 0.0001
11	p < 0.0001	p < 0.0001	p < 0.0001	p < 0.0001
12	p < 0.0001	p < 0.0001	p < 0.0001	p < 0.0001
13	p < 0.0001	p < 0.0001	p < 0.0001	p < 0.0001
14	p < 0.0001	p < 0.0001	p < 0.0001	p < 0.0001
15	p < 0.0001	p < 0.0001	p < 0.0001	p < 0.0001
16	p < 0.0001	p < 0.0001	p < 0.0001	p < 0.0001