

ESM Table 2. Individual physiologic data from LepR I^{fl/p} and Ubc Cre LepR I^{fl/p} mice. Initial and final body weight (g), initial and final blood glucose (mmol/l), glucose tolerance test blood glucose measurements (mmol/l) after overnight fast (mmol/l) and at time 15, 30, 60, and 120 min followed by the area under the curve (AUC, mmol/l x min), random fed serum insulin (ng/ml), insulin tolerance test blood glucose measurements (mmol/l) after a 4 hour fast and at time 0, 15, 30, 45, and 60 min followed by the area under the curve (AUC; % initial blood glucose x min), gonadal fat weight (g). Measurements were made in three different cohorts of LepR I^{fl/p} and Ubc Cre LepR I^{fl/p} mice at 3 and 5 weeks after tamoxifen initiation.

		Week 3																						
	Group	ID Number	Sex	#	Initial Wt (g)	Final Wt (g)	Init. BG (mmol/l)	Final BG (mmol/l)	Fast BG (mmol/l)	15 min BG (mmol/l)	30 min BG (mmol/l)	60 min BG (mmol/l)	120 min BG (mmol/l)	AUC (mmol/l x min)	Fed Insulin (pmol/l)	Fasting Insulin (pmol/l)	4 hr Fast BG (mmol/l)	0 min BG (mmol/l)	15 min BG (mmol/l)	30 min BG (mmol/l)	45 min BG (mmol/l)	60 min BG (mmol/l)	AUC (% initial x min)	Gonad Fat (g)
Control	LepR I ^{fl/p}	62.3	M	1	21.2	21.4	8.4	6.0	3.3	12.6	11.8	9.7	5.3	1076	62.5	44.4	ND	ND	ND	ND	ND	ND	ND	ND
	LepR I ^{fl/p}	63.2	F	2	16.9	18.2	7.5	8.6	2.7	12.7	13.6	10.6	3.6	1100	ND	73.2	ND	ND	ND	ND	ND	ND	ND	ND
	LepR I ^{fl/p}	63.3	F	3	19.3	19.2	7.7	6.9	2.7	10.6	11.3	9.0	4.1	960	39.3	54.4	ND	ND	ND	ND	ND	ND	ND	ND
	LepR I ^{fl/p}	63.4	F	4	18.4	18.3	6.9	6.9	2.4	13.2	13.2	8.9	4.2	1038	56.8	22.0	ND	ND	ND	ND	ND	ND	ND	ND
	LepR I ^{fl/p}	64.3	F	5	16.8	15.2	6.1	5.1	1.8	5.4	6.7	4.9	3.8	581	ND	58.7	ND	ND	ND	ND	ND	ND	ND	ND
	LepR I ^{fl/p}	22.2BI	M	6	22.6	23.6	10.5	8.6	4.1	6.0	6.2	6.3	4.5	678	318.9	ND	9.4	10.0	5.2	3.4	2.0	1.8	4448	279
	LepR I ^{fl/p}	24.4BI	M	7	20.7	21.0	11.9	10.1	3.4	22.5	21.3	11.6	5.1	1516	101.4	50.4	10.4	10.8	6.1	4.8	3.3	2.7	5663	190
	LepR I ^{fl/p}	25.1BI	M	8	19.4	20.5	11.3	9.2	6.3	27.7	22.1	13.1	7.2	1765	136.4	24.3	9.1	12.0	4.6	4.6	2.7	2.3	5130	92
	Average				19.4	19.7	8.8	7.4	3.3	13.8	13.3	9.3	4.7	1089.3	119.2	46.8	9.6	10.9	5.3	4.3	2.7	2.3	5080.3	187.0
	SEM				0.7	0.9	0.8	0.6	0.5	2.7	2.1	0.9	0.4	139.2	42.4	7.0	0.4	0.6	0.5	0.4	0.4	0.4	0.3	351.6
LepR KO	Ubc Cre LepR I ^{fl/p}	62.1	M	1	20.5	33.7	10.9	9.8	4.9	20.7	22.4	13.3	5.9	1625	291.0	91.6	ND	ND	ND	ND	ND	ND	ND	ND
	Ubc Cre LepR I ^{fl/p}	62.2	M	2	20.8	27.1	9.2	7.9	3.1	9.2	10.6	6.8	6.2	892	163.7	77.1	ND	ND	ND	ND	ND	ND	ND	ND
	Ubc Cre LepR I ^{fl/p}	63.1	F	3	17.6	31.3	7.4	8.3	4.6	14.7	20.3	24.9	12.4	2203	197.1	76.8	ND	ND	ND	ND	ND	ND	ND	ND
	Ubc Cre LepR I ^{fl/p}	64.1	F	4	17.3	32.9	7.7	10.3	4.3	17.9	26.6	21.9	13.3	2283	253.1	112.3	ND	ND	ND	ND	ND	ND	ND	ND
	Ubc Cre LepR I ^{fl/p}	64.2	F	5	17.8	30.9	6.7	9.2	4.0	14.3	17.9	23.5	9.8	2000	73.9	43.2	ND	ND	ND	ND	ND	ND	ND	ND
	Ubc Cre LepR I ^{fl/p}	22.1BI	M	6	22.4	35.0	11.3	7.3	8.6	17.0	18.2	15.8	9.9	1692	353.7	615.0	11.3	12.2	12.5	7.1	6.1	8.7	9758	1878
	Ubc Cre LepR I ^{fl/p}	22.3BI	M	7	21.5	39.0	8.2	10.3	6.2	14.1	15.3	12.5	8.4	1418	477.3	490.0	11.7	14.4	13.1	7.5	7.8	9.0	10838	2090
	Ubc Cre LepR I ^{fl/p}	22.4BI	M	8	22.5	34.9	8.9	10.2	6.7	13.9	15.1	13.3	8.8	1464	1383.6	487.9	13.6	16.0	14.8	14.4	16.4	15.4	16553	1877
	Ubc Cre LepR I ^{fl/p}	22.5BI	M	9	24.7	40.0	9.3	9.5	7.0	26.3	HI	23.6	18.9	2702	840.2	448.0	11.3	12.7	14.1	14.7	12.8	12.5	14618	2163
	Ubc Cre LepR I ^{fl/p}	24.1BI	M	10	19.1	34.4	8.4	9.9	7.1	HI	HI	27.6	12.4	2710	1419.9	432.7	9.1	12.9	6.2	6.1	7.1	9.6	8273	1678
	Ubc Cre LepR I ^{fl/p}	24.2BI	M	11	18.6	27.2	9.2	8.6	6.6	11.9	9.1	8.1	6.2	979	439.7	193.9	13.3	13.5	9.7	11.3	12.2	9.2	12030	1086
	Ubc Cre LepR I ^{fl/p}	24.3BI	M	12	19.7	32.6	12.0	10.6	5.5	22.2	HI	HI	14.3	2683	424.2	238.1	13.1	15.9	9.6	7.1	8.8	7.7	10073	1777
Average				20.2	33.3	9.1	9.3	5.7	16.6	17.0	17.4	10.6	1887.5	526.5	275.6	11.9	13.9	11.4	9.7	10.2	10.3	11734.7	1792.7	
SEM				0.7	1.1	0.5	0.3	0.5	1.5	1.8	2.2	1.1	186.0	130.8	59.2	0.6	0.6	1.2	1.4	1.4	1.0	1102.7	133.9	
p-value				0.44	8.65E-08	0.70	0.007	0.003	0.003	0.36	0.19	0.008	0.0007	0.006	0.048	0.01	0.046	0.02	0.01	0.04	0.0098	0.001	0.005	0.00007

		Week 5																						
	Group	ID Number	Sex	#	Initial Wt (g)	Final Wt (g)	Init. BG (mmol/l)	Final BG (mmol/l)	Fast BG (mmol/l)	15 min BG (mmol/l)	30 min BG (mmol/l)	60 min BG (mmol/l)	120 min BG (mmol/l)	AUC (mmol/l x min)	Fed Insulin (pmol/l)	Fasting Insulin (pmol/l)	4 hr Fast BG (mmol/l)	0 min BG (mmol/l)	15 min BG (mmol/l)	30 min BG (mmol/l)	45 min BG (mmol/l)	60 min BG (mmol/l)	AUC (% initial x min)	Gonad Fat (g)
Control	B6.129	974.2	F	1	14.4	17.0	7.6	7.6	2.4	20.9	23.8	9.1	4.1	1397	127.9	71.8	ND	ND	ND	ND	ND	ND	ND	
	B6.129	980.1	F	2	19.7	19.4	6.4	7.7	2.4	14.8	9.8	7.2	4.5	922	114.5	79.4	ND	ND	ND	ND	ND	ND	ND	
	B6.129	980.2	F	3	17.9	17.9	7.0	6.2	2.4	12.4	10.6	6.9	3.6	864	204.2	54.8	ND	ND	ND	ND	ND	ND	ND	
	B6.129	980.3	F	4	18.4	17.2	7.6	6.1	2.1	21.3	18.3	10.1	4.8	1346	95.2	57.3	ND	ND	ND	ND	ND	ND	ND	
	B6.129	981.2	F	5	16.6	18.1	4.7	7.2	2.3	24.2	14.2	7.8	4.2	1370	55.3	133.6	ND	ND	ND	ND	ND	ND	ND	
	B6.129	981.4	F	6	17.1	16.6	6.0	6.8	3.1	17.8	15.3	12.9	5.2	1178	71.3	364.3	ND	ND	ND	ND	ND	ND	ND	ND
Average				17.3	17.7	6.5	6.9	2.4	18.6	15.4	9.0	4.4	1179.5	111.4	126.9									
SEM				0.7	0.4	0.5	0.3	0.1	1.8	2.1	0.9	0.2	96.0	21.5	48.9									
LepR KO	B6.129	974.1	F	1	14.8	40.9	5.8	8.6	4.8	20.3	21.2	HI	HI	2901	1105.0	526.9	ND	ND	ND	ND	ND	ND	ND	
	B6.129	974.4	F	2	17.7	41.7	6.6	7.8	3.4	25.9	HI	HI	23.8	3003	691.3	390.5	ND	ND	ND	ND	ND	ND	ND	
	B6.129	974.5	F	3	15.4	38.0	7.6	7.4	3.8	10.2	12.8	24.7	HI	2413	979.2	420.3	ND	ND	ND	ND	ND	ND	ND	
	B6.129	978.1	F	4	17.4	40.5	5.6	6.8	4.2	25.9	HI	HI	HI	3129	1623.8	405.5	ND	ND	ND	ND	ND	ND	ND	
	B6.129	978.5	F	5	16.7	45.5	5.2	6.3	4.1	14.6	HI	HI	HI	2958	735.4	247.4	ND	ND	ND	ND	ND	ND	ND	
	B6.129	981.1	F	6	18.0	42.1	4.8	5.4	3.9	19.5	20.2	9.1	4.4	1320	691.5	851.9	ND	ND	ND	ND	ND	ND	ND	
	B6.129	981.3	F	7	19.4	43.5	5.4	9.1	4.2	26.2	HI	HI	HI	23.3	2997	800.3	575.1	ND	ND	ND	ND	ND	ND	
	Average				17.1	41.7	5.8	7.3	4.1	20.4	18.1	16.9	17.2	2674.4	946.6	486.2								
	SEM				0.6	0.9	0.4	0.5	0.2	2.4	2.6	7.8	6.4	241.7	127.3	72.4								
	p-value				0.76	1.16E-10	0.24	0.49	0.00001	0.57	0.47	0.10	0.02	0.0002	0.00009	0.002								