

Table S1

GROUP	WT F (A)	WT M (B)	MKR F (C)	MKR M (D)	K-W test	A vs. B	C vs. D	A vs. C	B vs. D
GLUCOSE (mg/dL)	130.0 (114.3;142.3)	158.0 (148.8;181.5)	151.0 (131.5; 159.8)	193.0 (161.8; 206.8)	0.078	0.115	0.046	0.318	0.141
INSULIN (pg/mL)	286.3 (273.8;440.3)	812.0 (736.4;924.2)	2523.6 (1445.1;4244.5)	5070.3 (2675.0;13761.5)	$1.3 \cdot 10^{-5}$	$1.6 \cdot 10^{-3}$	0.076	$7.8 \cdot 10^{-4}$	$9.1 \cdot 10^{-4}$
C-PEPTIDE (pg/mL)	391.7 (377.3;432.3)	774.0 (588.5;892.9)	1270.7 (859.2;1952.0)	1534.2 (954.9;2101.7)	$6.1 \cdot 10^{-4}$	0.027	0.700	$3.3 \cdot 10^{-3}$	$5.5 \cdot 10^{-3}$
LEPTIN (pg/mL)	2285.7 (2038.7;2904.3)	4400.1 (3664.3;5778.7)	1095.9 (933.7;1204.7)	1089.2 (917.1;1441.4)	$3.6 \cdot 10^{-5}$	0.021	0.834	$7.8 \cdot 10^{-4}$	$7.8 \cdot 10^{-4}$

Table S1. Basal serum metabolic parameters in non-operated WT and MKR mice at 13 weeks of age. Data were expressed as Median (Q1; Q3). K-W test indicates Kruskal-Wallis test result used for multiple comparisons among the four groups of mice. The columns with the header in gray show the Mann-Whitney U-test result used to compare data distribution between two groups of mice. A p-value lower than 0.008 was considered statistically significant (Bonferroni correction).

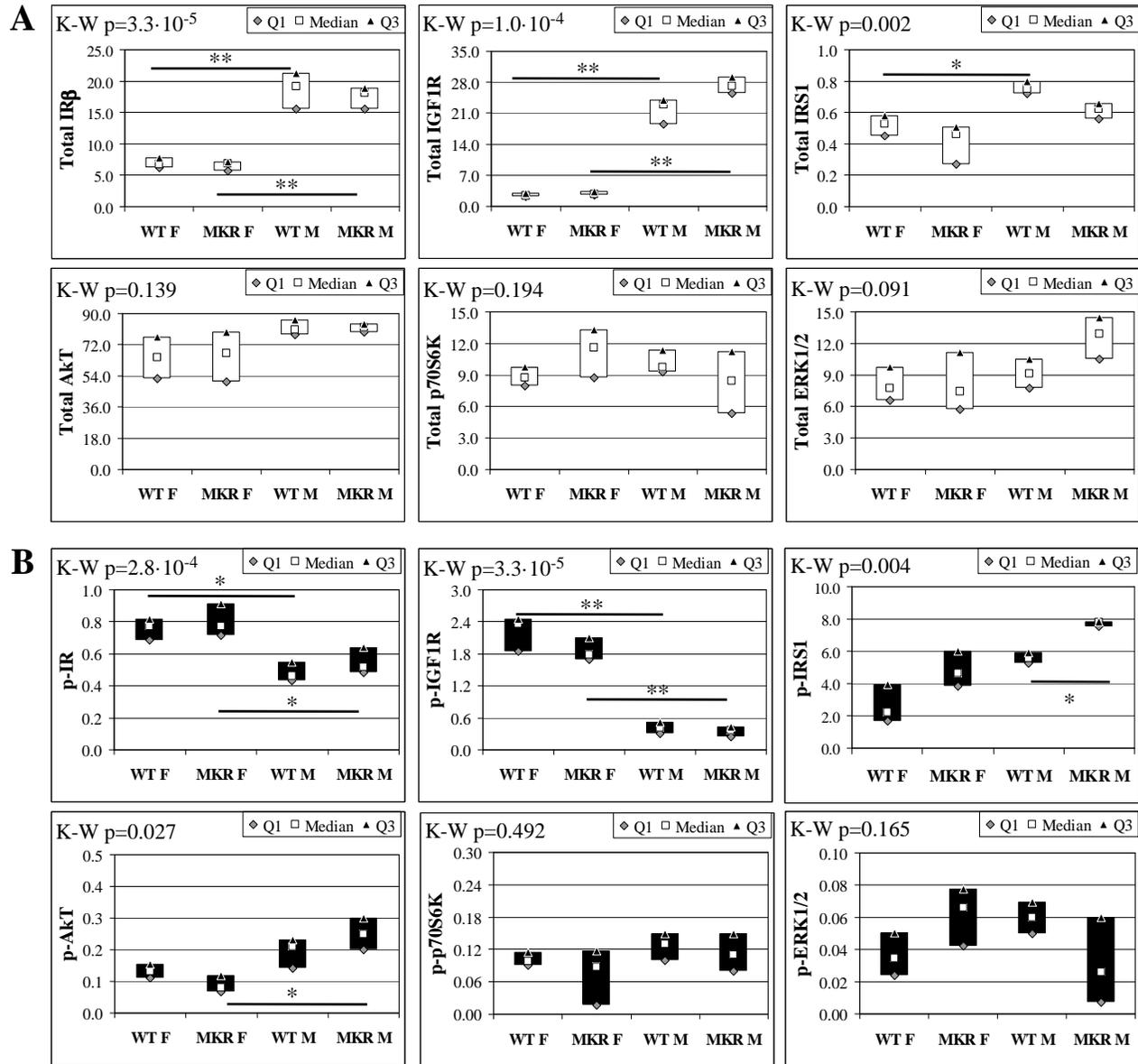


Figure S1. Basal insulin signaling in non-operated mice esophageal tissue at 13 weeks of age. Data are represented as Median (Q1; Q3). K-W indicates Kruskal-Wallis test result used for multiple comparisons among the four groups of mice. Mann-Whitney U-test was performed to evaluate the differences between the two groups WT and MKR with the same gender. * $p < 0.008$; ** $p < 8 \cdot 10^{-4}$. **A.** Total protein expression: the quantity of each total protein considered was expressed in ng/100 mg of total protein extracted by the distal mice esophageal segment. **B.** Phosphorylated protein expression: the amount of the six phospho- proteins considered was expressed as phosphorylated Units for each ng of the corresponding total protein amount. Proteins were quantified by Luminex-xMAP Technology on the basis of a standard curve. Beta-tubulin expression was used as internal loading control.