

Table S1. Statistical analysis of lifespan and stress resistance of the experimental flies with inhibited/activated IIS in ISCs and EBs.

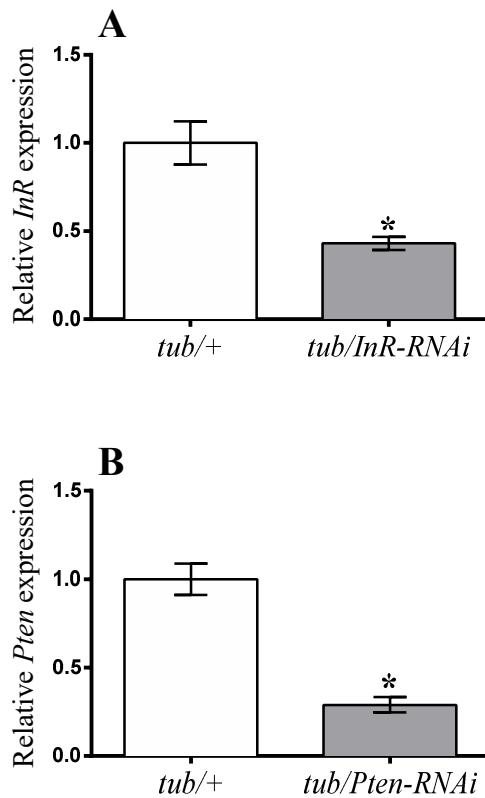
Esc/		+	<i>InR-RNAi</i>	<i>Pten-RNAi</i>
Lifespan (days)	N	100	95	100
	Mean	26	2	24
	Difference, %		-92	-7
	χ^2		144	2.2
	p value		<0.0001	0.139
Starvation resistance (hours)	N	60	45	60
	Mean	84	47	77
	Difference, %		-60	-8
	χ^2		90	10
	p value		<0.0001	0.001
Malnutrition 1%S (days)	N	60	75	45
	Mean	7	6	6
	Difference, %		-16	-8
	χ^2		6	5
	p value		0.013	0.020
Malnutrition 1%AY (days)	N	60	45	30
	Mean	9	7	6
	Difference, %		-19	-33
	χ^2		3	11
	p value		0.081	0.001
Malnutrition 0.5%S-0.5%AY (days)	N	60	75	45
	Mean	20	9	20
	Difference, %		-56	-4
	χ^2		59	3
	p value		<0.0001	0.09

Survival between groups was compared by Log-rank test.

Table S2. Primer pairs used for qRT-PCR.

Abbreviation	Primer Pairs
<i>rp49</i>	F: ATCGGTTACGGATCGAACAA R: GACAATCTCCTTGCCTTCT
<i>crq</i>	F: CAGAGCTCCTCCGAATTG R: ATGCCGGTGATGAGAAAGAC
<i>dilp2</i>	F: AGCAAGCCTTGTCCCTCATCTC R: ACACCATACTCAGCACCTCGTTG
<i>dilp3</i>	F: TGTGTGTATGGCTCAACGCAATG R: CACTCAACAGTCTTCCAGCAGGG
<i>dilp5</i>	F: GAGGCACCTTGGGCCATTIC R: CATGTGGTGAGATTCCG
<i>dilp6</i>	F: CCCTGGCGATGTATTCCCAACA R: CCGACTTGCACACAAATCGGTTA
<i>akh</i>	F: AGACCTCCAACGAAATGCTG R: GTGCTTGCAGTCCAGAAAGAG
<i>pepck</i>	F: TCAATGGCGAATCCTGCTAC R: TCCTTCACGTCCACCTTATCC
<i>tobi</i>	F: CCACCAAGCGAGACATTAC R: GAGCGGCGTAGTCCATCAC
<i>bmm</i>	F: GGTCCCTTCAGTCCCTCCTT R: GCTTGTGAGCATCGTCTGGT
<i>4ebp</i>	F: CCAGGAAGGTTGTCATCTCG R: CCAGGAGTGGTGGAGTAGAGG
<i>upd2</i>	F: CACAAGTGCCTGAAGCTAA R: GGCTCTT CTGCTGATCCTTG
<i>upd3</i>	F: GCCCTCTTCACCAAACGTGAA R: TTTCTTCTGGATGCCCTTG
<i>spi</i>	F: CCTTCTATTGCGCTTCGAG R: CGCATGTGGTAGGGTAGCTT
<i>krn</i>	F: CGTGTGGCAACACAAGT R: TGTGGCAATGCAGTTAAGG
<i>vn</i>	F: AACGCAGAGGTACCGAAGAT R: GCGCACTATTAGCTCGGAAC
<i>puc</i>	F: CATGTGGCTAGCAATTG R: GTCTTCGAAAAACGTACAGC
<i>soc36</i>	F: CAGTCAGCAATATGTTGTCG R: ACTTGCAGCATCGTCGCTTC

All primers are displayed in 5'-3' direction.



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Figure S1. Relative *InR* and *Pten* expression in flies with IIS inhibition/activation in whole *Drosophila* body. The differences between means (\pm SEM) were compared by Student's *t*-test. Asterisk shows difference from control group (*tub*/+), $p<0.05$; $n=5$.

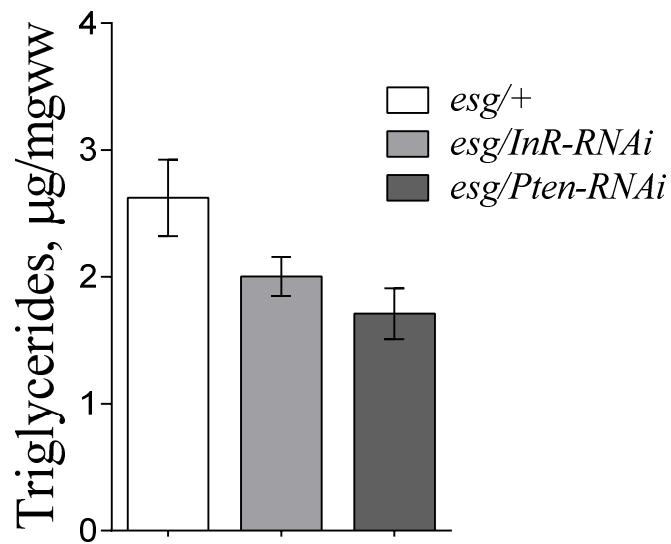


Figure S2. Amount of TAG of flies with IIS modulated in stem and progenitor cells. Results represent the mean \pm SEM of 4-5 replicates per genotype. Group comparisons were performed using ANOVA followed by Newman-Keuls post-hoc test.

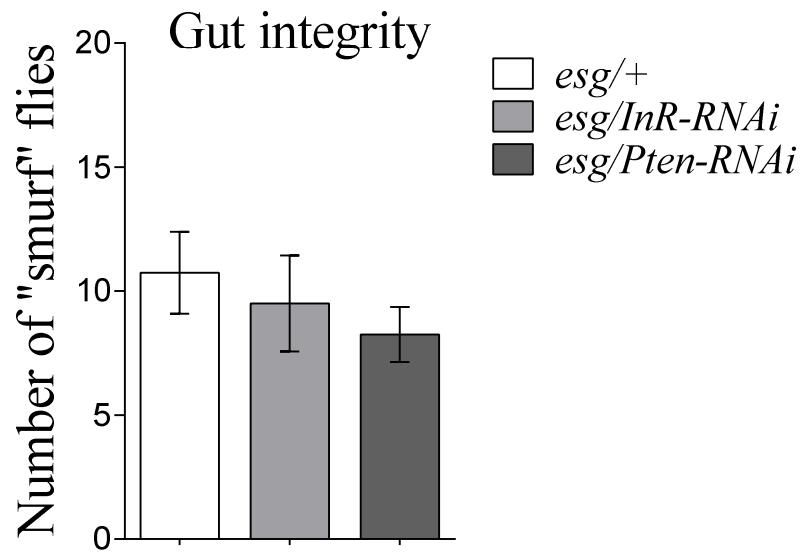


Figure S3. Number of “smurf” flies, an indicator of gut integrity, in control, *InR-RNAi*- and *Pten-RNAi*-expressing flies. The measurements were repeated every 5 days for up to 30 days (on 1, 5, 10, 15, 20, 25, 30 day). However, data for *esc/InR-RNAi* genotype represent the results of measurements made on the 1-st experimental day (seventh days after fly switch to 29°C and induction of RNAi expression). Bars represent mean values \pm SEM for 5 replicates.