

**Table S5. Insulin signaling is not required for normal germ cell size**

Strain	Genotype	RNAi reagent	RNAi target	Average volume ( $\mu\text{m}^3$ ) <sup>a</sup>	SEM <sup>b</sup>	<i>P</i>	<i>n</i> <sup>b</sup>
FT224		L4440		167.1	±5.1		40
FT224		mv_Y47D3A.16 <sup>c</sup>	<i>rsk-1</i>	147.4	±4.2	**	50
FT224		pGC488 <sup>d</sup>	<i>daf-2</i>	167.2	±4.9		50
FT224		<i>ins-3</i> <sup>e</sup>	<i>ins-3</i>	173.8	±5.7		40
FT224		<i>ins-33</i> <sup>e</sup>	<i>ins-33</i>	175.6	±5.8		40
GC1145	<i>daf-2(e1370)</i>	none	none	163.9	±4.7		29

<sup>a</sup> SYN-4::GFP-expressing worms were grown on the indicated RNAi reagent from L1 (immediately after hatch-off) until the L4 larval stage, then observed live for GFP fluorescence marking the membranes.

Images were captured in the z-plane at 1  $\mu\text{m}$  intervals, and x-y measurements were taken across two different main axes of the cell (in the z plane with the largest cell diameter) using the line measurement tool in Axiovision software (Carl Zeiss). The number of z layers was multiplied by the x and y line measurements to obtain cell volume. For each gonad, five 'cells' were sampled. Note that although germ cells in the proliferative zone are technically syncytial, as they open into a core of shared cytoplasm referred to as the rachis, each nucleus is surrounded by an almost-complete plasma membrane. Therefore it is possible to measure a 'cell' volume despite an opening into the rachis. A total of 8-10 worms were tested for a total of 40-50 individual 'cells' measured.

<sup>b</sup> SEM, standard error of the mean; n, number of cells measured.

<sup>c</sup> Vidal RNAi library (Rual et al., 2004).

<sup>d</sup> RNAi reagent made for this study.

<sup>e</sup> RNAi reagent courtesy of Monica Driscoll.

Statistics: \*\* $P < 0.01$ , two-tailed Student's *t*-test versus L4440; for others,  $P > 0.1$ .