

Table S2. The different roles of different ILPs in regulating dauer exit

Strain/treatment	No. of animals observed/total animals	No. of trials	P-value against control (log-rank)	P-value against specified groups (logrank)	Rescue effect
25°C					
<i>daf-2(e1368)</i>	438/599	6			
<i>ins-6(tm2416); daf-2(e1368)</i>	324/578	6	<0.0001*	<0.0001 [†]	
<i>daf-2(e1368); ins-1(nr2091)</i>	480/588	6	0.0001*		
<i>daf-2(e1368); daf-28(tm2308)</i>	407/587	6	0.0001*	<0.0001 [‡]	
<i>ins-6; daf-2; ins-1</i>	375/583	6	<0.0001*		
<i>daf-2; ins-1; daf-28</i>	495/579	6	0.001*		
<i>ins-6; daf-2; daf-28</i>	194/596	6	<0.0001*	<0.0001 [§]	
<i>ins-6; daf-2; ins-1; daf-28</i>	293/605	6	<0.0001*	<0.0001	
<i>ins-6</i> rescues					
25°C					
<i>ofm-1p::gfp</i> (25 ng)					
<i>daf-2; jxEx18</i>	632/739	8			
<i>daf-2; jxEx21</i>	409/516	6			
<i>daf-2; jxEx22</i>	448/591	6			
<i>ins-6; daf-2; jxEx18</i>	484/815	8	<0.0001**		
<i>ins-6; daf-2; jxEx21</i>	353/592	6	<0.0001 ^{††}		
<i>ins-6; daf-2; jxEx22</i>	342/605	6	<0.0001 ^{††}		
Full rescue (low)					
<i>ins-6p::ins-6</i> (2 ng); <i>ofm-1p::gfp</i> (25 ng)					
<i>ins-6; daf-2; jxEx27</i>	541/835	8	<0.0001** ^{††,‡‡}	<0.0001 ^{§§, ,***}	+** ^{††,‡‡}
<i>ins-6; daf-2; jxEx28</i>	632/804	8	<0.0001** ^{††}	<0.0001 ^{§§, ,***}	+** ^{††}
			<0.05 ^{††}		+ ^{††}
<i>ins-6; daf-2; jxEx29</i>	472/698	7	<0.0001** ^{††,‡‡}	<0.0001 ^{§§, ,***}	+** ^{††,‡‡}
Full rescue (high)					
<i>ins-6p::ins-6</i> (25 ng); <i>ofm-1p::gfp</i> (25 ng)					
<i>ins-6; daf-2; jxEx163</i>	677/809	8	n.s.**	<0.0001 ^{§§, ,***}	+**
			<0.02 ^{††}		+++ ^{††,‡‡}
			<0.0001 ^{††}		
<i>ins-6; daf-2; jxEx174</i>	698/817	8	n.s.**	<0.0001 ^{§§, ,***}	+**
			<0.02 ^{††}		+++ ^{††,‡‡}
			<0.0001 ^{††}		
<i>ins-6; daf-2; jxEx175</i>	578/684	7	n.s.**	<0.0001 ^{§§, ,***}	+**
			<0.005 ^{††}		+++ ^{††,‡‡}
			<0.0001 ^{††}		
ASI-specific rescue (low)					
<i>str-3p::ins-6</i> (2 ng); <i>ofm-1p::gfp</i> (25 ng)					
<i>ins-6; daf-2; jxEx53</i>	121/215	3	<0.0001** ^{††,‡‡}	n.s. ^{§§, ,***}	-** ^{††,‡‡}
<i>ins-6; daf-2; jxEx54</i>	168/257	3	<0.0001** ^{††,‡‡}	n.s. ^{§§, ,***}	-** ^{††,‡‡}
<i>ins-6; daf-2; jxEx64</i>	168/213	2	<0.0001** ^{††}	<0.0001 ^{§§, ,***}	+** ^{††}
			n.s. ^{‡‡}		+ ^{††}
<i>ins-6; daf-2; jxEx65</i>	164/228	2	<0.0001** ^{††}	<0.05 ^{§§}	+**
			0.0005 ^{‡‡}	n.s. ^{,***}	- ^{††,‡‡}
<i>ins-6; daf-2; jxEx66</i>	133/214	2	<0.0001** ^{††,‡‡}	n.s. ^{§§, ,***}	-** ^{††,‡‡}
ASI-specific rescue (high)					
<i>str-3p::ins-6</i> (25 ng); <i>ofm-1p::gfp</i> (25 ng)					
<i>ins-6; daf-2; jxEx50</i>	345/352	3	<0.0001** ^{††,‡‡}	<0.0001 ^{§§, ,***}	+++ ^{**^{††,‡‡}}
<i>ins-6; daf-2; jxEx51</i>	354/361	3	<0.0001** ^{††,‡‡}	<0.0001 ^{§§, ,***}	+++ ^{**^{††,‡‡}}
<i>ins-6; daf-2; jxEx52</i>	327/333	3	<0.0001** ^{††,‡‡}	<0.0001 ^{§§, ,***}	+++ ^{**^{††,‡‡}}
ASJ-specific rescue (low)					
<i>trx-1p::ins-6</i> (2 ng); <i>ofm-1p::gfp</i> (25 ng)					
<i>ins-6; daf-2; jxEx61</i>	182/208	2	n.s.** ^{††}	<0.0001 ^{§§, ,***}	+** ^{††}
			0.0002 ^{‡‡}		+++ ^{‡‡}
<i>ins-6; daf-2; jxEx62</i>	185/205	2	n.s.**	<0.0001 ^{§§, ,***}	+**
			<0.05 ^{††}		+ ^{††}
			<0.05 ^{††}		+++ ^{‡‡}
<i>ins-6; daf-2; jxEx63</i>	167/197	2	<0.0001**	<0.0001 ^{§§, ,***}	+** ^{††}
			n.s. ^{‡‡}		+++ ^{‡‡}
ASJ-specific rescue (high)					
<i>trx-1p::ins-6</i> (25 ng); <i>ofm-1p::gfp</i> (25 ng)					

<i>ins-6; daf-2; jxEx58</i>	278/288	3	n.s. ^{**,††} <0.0001 ^{††}	<0.0001 ^{§§,¶¶,***}	++ ^{*,††}
<i>ins-6; daf-2; jxEx59</i>	298/319	3	<0.05 ^{**} n.s. ^{††} <0.0001 ^{††}	<0.0001 ^{§§,¶¶,***}	+++ ^{††} +++ ^{*,**} ++ ^{††} +++ ^{††}
<i>ins-6; daf-2; jxEx60</i>	302/316	3	<0.0001 ^{**,††} <0.05 ^{††}	<0.0001 ^{§§,¶¶,***}	+++ ^{*,††,††}

daf-28 rescues

25°C

<i>ofm-1p::gfp</i> (25 ng)					
<i>daf-2; jxEx21</i>	207/316	3			
<i>daf-2; jxEx22</i>	188/307	3			
<i>daf-2; daf-28; jxEx21</i>	169/302	3	0.01 ^{††}		
<i>daf-2; daf-28; jxEx22</i>	90/298	3	<0.0001 ^{††}		
Full rescue (low)					
<i>daf-28p::daf-28</i> (2 ng); <i>ofm-1p::gfp</i> (25 ng)					
<i>daf-2; daf-28; jxEx108</i>	150/307	3	<0.0001 ^{††} 0.03 ^{††}	n.s. ^{†††} <0.0001 ^{†††}	- ^{††} + ^{††}
<i>daf-2; daf-28; jxEx114</i>	105/197	3	0.006 ^{††} n.s. ^{††}	n.s. ^{†††} <0.0001 ^{†††}	- ^{††} ++ ^{††}
Full rescue (high)					
<i>daf-28p::daf-28</i> (25 ng); <i>ofm-1p::gfp</i> (25 ng)					
<i>daf-2; daf-28; jxEx105</i>	183/268	3	n.s. ^{††} 0.002 ^{††}	0.0006 ^{†††} <0.0001 ^{†††}	++ ^{††} +++ ^{††}
<i>daf-2; daf-28; jxEx116</i>	182/263	3	n.s. ^{††} 0.003 ^{††}	0.001 ^{†††} <0.0001 ^{†††}	++ ^{††} +++ ^{††}

Genetic ASJ ablations

25°C

Intact ASJ controls

<i>ofm-1p::gfp</i> (25 ng)					
<i>daf-2; jxEx18</i>	90/106	1			
<i>ins-6; daf-2; jxEx18</i>	62/104	1	<0.0001 ^{**}		

Ablated ASJ

<i>trx-1p::ICE</i> (100 ng); <i>ofm-1p::gfp</i> (25 ng)					
<i>daf-2; jxEx100</i>	19/103	1	<0.0001 ^{**}		
<i>daf-2; jxEx102</i>	13/62	1	<0.0001 ^{**}		
<i>ins-6; daf-2; jxEx100</i>	5/90	1	<0.0001 ^{**}	0.009 ^{§§§}	
<i>ins-6; daf-2; jxEx102</i>	5/100	1		0.002 ^{¶¶¶}	

We analyzed the rates of dauer exit of *daf-2(e1368)* mutants in the presence or absence of specific insulins at 25°C and show the statistics from the cumulative experiments. We used the log-rank test to determine the statistical significance of the differences among the groups.

*Compared with *daf-2(e1368)* mutants.

[†]Compared with *ins-6(tm2416)*; *daf-2(e1368)*; *ins-1(nr2091)* mutants.

[‡]Compared with *daf-2(e1368)*; *ins-1(nr2091)*; *daf-28(tm2308)* mutants.

[§]Compared with *ins-6(tm2416)*; *daf-2(e1368)*; *ins-1(nr2091)*; *daf-28(tm2308)* mutants.

[¶]Compared with *ins-6(tm2416)*; *daf-2(e1368)*; *daf-28(tm2308)* mutants.

**Compared with *daf-2; jxEx18* animals.

^{††}Compared with *daf-2; jxEx21* animals.

^{†††}Compared with *daf-2; jxEx22* animals.

^{§§}Compared with *ins-6; daf-2; jxEx18* animals.

^{¶¶}Compared with *ins-6; daf-2; jxEx21* animals.

^{***}Compared with *ins-6; daf-2; jxEx22* animals.

^{††††}Compared with *daf-2; daf-28; jxEx21* animals.

^{†††††}Compared with *daf-2; daf-28; jxEx22* animals.

^{§§§}Compared with *daf-2; jxEx100* animals.

^{¶¶¶}Compared with *daf-2; jxEx102* animals.

-, no rescue; +, partial rescue; ++, full rescue; +++, over rescue.

n.s., not significant since ($P > 0.05$). In the ASJ-ablated animals, most of the larvae remain in the dauer stage, which accounts for the low number of animals observed as having exited into the L4 stage (second column).
