

Table S1. Expression of non-ASE fate markers in *lisy-9*

Cell	<i>gfp</i>	Genotype	2 cells (wild type)	1 cell	0 cells	<i>n</i>
ASJ	<i>gpa-9</i>	Wild type	100%	0%	0%	20
		<i>ot85</i>	85.3%	14.7%	0%	34
		<i>ok631</i>	15%	11%	74%	27
AUA	<i>flp-8</i>	Wild type	100%	0%	0%	20
		<i>ot85</i>	76.9%	20.5%	2.6%	39
		<i>ok631</i>	50%	25%	25%	20
AFD	<i>gcy-8</i>	Wild type	100%	0%	0%	25
		<i>ot85</i>	100%	0%	0%	44
		<i>ok631</i>	n/a	n/a	n/a	n/a
AWB	<i>str-1</i>	Wild type	100%	0%	0%	25
		<i>ot85</i>	78%	22%	0%	50
		<i>ok631</i>	43.8%	47.5%	8.7%	80
ASK	<i>lim-4</i>	Wild type	100%	0%	0%	30
		<i>ok631</i>	70%	20%	10%	30
		Wild type	100%	0%	0%	25
ADL	<i>srb-6</i>	Wild type	100%	0%	0%	25
		<i>ot85</i>	87.8%	6.1%	6.1%	49
		<i>ok631</i>	87.0%	13.0%	0%	54
ADF	<i>srb-6</i>	Wild type	100%	0%	0%	25
		<i>ot85</i>	40.8%	44.9%	14.3%	49
		<i>ok631</i>	57.4%	25.9%	16.7%	54
ADL	<i>tph-1</i>	Wild type	100%	0%	0%	30
		<i>ok631</i>	7.3%	72.7%	20%	55
		<i>ok631; lim-4 (yz12); otEx3103*</i>	7.4%	40.7%	51.9%	54
ASH	<i>srb-6</i>	<i>ok631; lim-4 (yz12)</i>	3.3%	15.6%	81.1%	90
		Wild type	100%	0%	0%	25
		<i>ot85</i>	81.6%	18.4%	0%	49
AVG [†]	<i>inx-18</i>	<i>ok631</i>	64.8%	24.1%	11.1%	54
		Wild type	n/a	100%	0%	40
		<i>ok631</i>	n/a	6%	94%	36
AWC	<i>str-2</i>	Wild type	n/a	98.2%	1.8%	56
		<i>ok631</i>	n/a	59.1%	40.9%	88
ASI	<i>sra-6</i>	Wild type	100%	0%	0%	20
		<i>ok631</i>	100%	0%	0%	21
PVQ	<i>sra-6</i>	Wild type	100%	0%	0%	20
		<i>ok631</i>	100%	0%	0%	21
AIY	<i>ttx-3</i>	Wild type	100%	0%	0%	50
		<i>ok631</i>	100%	0%	0%	28
OLL	<i>ser-2</i>	Wild type	100%	0%	0%	30
		<i>ok631</i>	100%	0%	0%	30
RME (D/V/L/R)	<i>unc-47</i>	Wild type	100% (4 cells)	0%	0%	30
		<i>ok631</i>	9.1%	72.7% (1-3 cells)	18.2%	44
AVL [†]	<i>unc-47</i>	Wild type	n/a	100%	0%	30
		<i>ok631</i>	n/a	46.7%	53.3%	44
RIS [†]	<i>unc-47</i>	Wild type	n/a	100%	0%	30
		<i>ok631</i>	n/a	36.4%	63.6%	44
D motor neurons	<i>unc-47</i>	Wild type	100% (6 cells)	0%	0%	30
		<i>ok631</i>	100% (6 cells)	0%	0%	44
CEPD, CEPV, ADE	<i>dat-1</i>	Wild type	100% (6 cells=wild type)	0%	0%	25
		<i>ok631</i>	100% (6 cells=wild type)	0%	0%	31

Red text indicates defects; blue, no defects observed.

**nhr-67(ok631)* is rescued by the presence of the *otEx3103*, *nhr-67*-containing fosmid.

[†]These cells are unilateral, rendering the first scoring category irrelevant.

n/a, not applicable.