

Cyst reduction by melatonin in a novel *Drosophila* model of polycystic kidney disease

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BicC^{Δ/YC33}



BicC^{Δ/IF34}



Figure S1. Melatonin feeding control. *BicC* flies fed melatonin mixed with green dye for three days, displayed ingested food contents visible through their semi-transparent abdominal cuticle. Legs were clipped for better visualization.

BicC [*delta/YC33*] 18-20d (18 days after treatment)

CONTROL	Anterior	Anterior	Anterior	Posterior	Posterior	Posterior
	Terminal	Intermediate	Proximal	Terminal	Intermediate	Proximal
1	2	6	2	4	3	0
2	7	10	0	5	8	3
3	6	5	0	5	6	3
4	5	13	1	5	9	5
5	5	9	2	4	7	1
6	6	13	1	4	7	1
7	8	13	1	6	8	3
8	5	10	0	7	8	5
9	6	12	0	4	5	1
10	4	7	1	3	7	2
11	7	11	2	4	9	3
12	8	10	3	3	8	2
13	7	11	1	6	9	3
14	6	6	0	6	5	1
15	6	11	3	7	8	1
16	6	7	1	6	13	3
17	4	8	0	6	13	2
18	6	7	0	5	7	2
19	5	9	2	3	6	4
20	6	7	2	6	5	4
21	5	5	3	5	4	0
22	4	8	0	3	6	2
23	6	13	0	7	9	2
24	2	10	0	6	7	3
25	8	11	1	7	7	1
26	0	3	0	3	3	3
27	7	4	1	4	7	2
28	5	3	0	4	5	2
29	2	5	0	4	8	3
30	0	0	0	1	1	2
31	6	7	0	3	5	1
32	3	5	0	4	6	0
33	3	2	0	4	7	2
34	3	3	0	2	3	1
35	1	2	0	0	3	1
36	4	5	0	0	3	3
37	2	2	0	3	2	1

38	0	0	0	2	2	2
39	1	4	0	2	4	1
40	5	5	0	6	5	0
41	4	5	0	0	3	3
42	3	4	0	1	3	1
43	0	0	0	0	2	0
44	0	0	0	1	1	2
45	3	5	0	2	3	3
46	0	0	0	0	0	2
47	2	2	0	2	4	2
48	2	5	0	1	2	2
49	0	0	0	0	0	2
50	0	3	0	3	5	3
Total # of cys	196	306	27	179	271	101

MELATONIN	Anterior	Anterior	Anterior	Posterior
	Terminal	Intermediate	Proximal	Terminal
1	4	5	0	1
2	6	12	3	4
3	2	5	0	2
4	5	8	2	6
5	4	5	0	2
6	5	6	0	1
7	3	9	1	5
8	4	10	1	6
9	4	4	0	4
10	0	0	0	3
11	5	6	0	1
12	3	5	1	7
13	7	5	0	7
14	6	10	0	6
15	0	0	0	0
16	5	4	0	5
17	4	1	0	3
18	7	12	0	7
19	4	9	0	6
20	6	9	0	5
21	7	4	1	5
22	4	2	1	5
23	5	6	0	3
24	0	0	0	0
25	5	7	0	6
26	0	0	0	0
27	3	6	0	2
28	3	5	0	0
29	5	6	0	2
30	2	2	0	4
31	0	0	0	0
32	0	5	1	4
33	4	2	0	1
34	1	4	0	2
35	0	0	0	0
36	4	2	0	2
37	2	1	0	1

	38	4	5	0	4
	39	0	0	0	0
	40	0	0	0	0
	41	0	0	0	3
	42	1	4	0	3
	43	0	0	0	0
	44	0	0	0	1
	45	0	0	0	1
	46	0	2	0	1
	47	1	1	0	0
	48	0	0	0	0
	49	0	0	0	0
	50	1	4	0	3
1080	Total # of cys	136	193	11	134

Posterior Intermediate	Posterior Proximal
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7	1
7	1
2	0
9	2
6	2
7	3
7	3
8	4
6	3
6	1
5	3
6	1
7	3
7	3
0	0
7	4
2	0
7	3
5	4
8	3
7	1
6	0
8	1
0	0
7	2
0	2
3	3
6	3
4	1
1	2
0	0
1	3
1	2
4	2
0	3
2	0
0	0

5	2
0	2
0	1
1	1
2	4
0	0
1	2
1	1
3	4
2	3
0	0
0	0
5	0

189

89

752

BicC [*delta/IIF34*] 18-20d (18 days of treatment)

CONTROL	Anterior	Anterior	Anterior	Posterior	Posterior	Posterior
	Terminal	Intermediate	Proximal	Terminal	Intermediate	Proximal
1	7	8	0	7	7	5
2	3	3	0	5	6	1
3	8	6	0	5	4	2
4	2	10	0	5	4	3
5	6	2	1	6	6	2
6	6	7	1	6	7	4
7	7	5	0	5	5	2
8	7	10	0	5	7	2
9	7	7	0	5	5	6
10	5	4	2	5	6	2
11	8	5	0	4	7	3
12	6	7	0	6	5	1
13	8	9	1	7	9	6
14	5	6	0	3	5	1
15	7	11	5	7	9	3
16	8	9	0	7	7	5
17	7	9	1	6	6	4
18	2	1	1	4	3	0
19	0	7	0	2	3	2
20	0	5	0	3	4	2
21	2	8	0	3	2	0
22	6	7	0	4	4	2
23	2	4	1	5	8	3
24	4	3	0	6	5	2
25	0	2	0	3	5	1
26	4	4	0	4	5	2
27	6	3	0	3	7	2
28	4	3	0	3	2	0
29	3	2	0	5	6	2
30	0	1	0	1	1	1
31	0	0	0	0	0	0
32	0	3	1	4	1	2
33	4	5	0	3	4	2
34	2	3	0	3	2	2
35	1	0	0	4	2	0
36	4	4	0	2	5	0
37	5	4	0	6	4	2

38	6	4	0	3	2	0
39	4	4	1	6	3	2
40	5	3	0	4	2	0
41	0	0	0	2	2	0
42	5	2	0	3	2	1
43	4	2	0	5	0	1
44	4	2	0	3	1	0
45	4	1	0	2	2	2
46	2	0	0	2	0	0
47	0	3	0	3	5	3
48	2	4	0	4	4	2
49	1	3	0	1	4	1
50	7	2	0	4	1	2
Total # of cys	200	217	15	204	206	93

MELATONIN	Anterior	Anterior	Anterior	Posterior
	Terminal	Intermediate	Proximal	Terminal
1	7	9	0	8
2	6	8	0	6
3	4	4	0	6
4	7	4	1	8
5	0	0	0	6
6	5	2	0	6
7	4	5	1	5
8	4	2	0	5
9	3	7	0	6
10	6	8	1	5
11	4	1	0	6
12	2	2	0	4
13	7	5	3	8
14	6	12	0	7
15	5	3	0	6
16	7	8	0	7
17	3	4	0	6
18	0	8	5	5
19	5	7	0	4
20	3	7	0	5
21	3	6	0	5
22	4	4	0	4
23	4	6	1	5
24	2	5	0	4
25	3	3	0	4
26	4	3	0	7
27	5	7	0	1
28	0	0	0	0
29	4	2	0	5
30	0	0	0	0
31	6	7	1	2
32	2	0	0	0
33	3	0	0	4
34	1	1	0	0
35	3	2	0	2
36	0	0	0	2
37	0	0	0	0

	38	3	1	0	1
	39	0	0	0	0
	40	1	2	0	1
	41	0	0	0	0
	42	3	0	0	3
	43	4	1	0	0
	44	5	4	0	0
	45	6	2	0	4
	46	3	2	0	1
	47	4	2	0	3
	48	3	3	0	3
	49	2	1	0	4
	50	2	2	1	6
935	Total # of cys	168	172	14	190

Posterior Intermediate	Posterior Proximal
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5	5
7	2
6	4
11	2
2	2
3	4
3	1
2	0
6	5
5	2
7	0
5	3
9	5
10	2
8	2
7	5
6	6
4	2
6	1
6	3
6	2
1	2
5	1
2	0
2	1
5	3
6	2
0	4
4	1
0	0
2	4
0	0
5	0
0	0
1	2
1	0
0	0

3 0
0 0
0 0
0 0
3 1
3 2
2 3
1 1
6 2
3 3
4 0
3 1
2 0

188	91	823
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