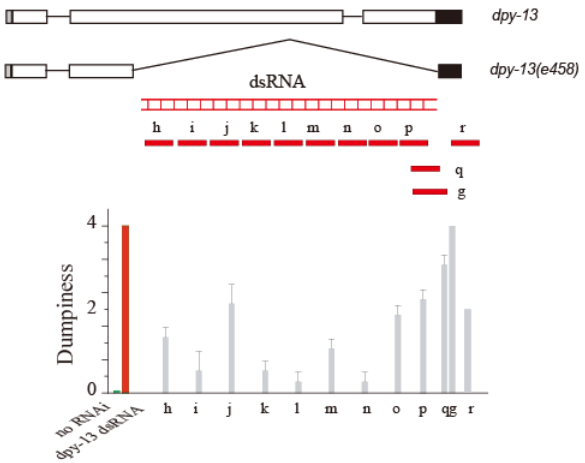
A



B

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                                 ....|....| ....|....| ....|....| ....|....| ....|....| ....|....| ....|....| ....|....|
                                         10         20         30         40         50         60         70
dpy-13                           AGGAGAGCGT GGAATCTGTC CAAAGTACTG CGCCATCGAT GGAGGAATCT TCTTCGAGGA CGGAACTCGC CGC---TAA
sqt-3                            AGGAGAGAAG GGAATCTGTC CAAAGTATTG CGCTCTCGAT GGAGGAGTCT TCTTCGAGGA CGGAACCAGA CGA---TAA
col-34                           AGGAGAGCGT GGAATCTGTC CAAAATACTG TGCTATCGAC GGAGGAGTCT TCTTCGAAGA CGGAACTCGT CGT---TAA
col-43                           AGGAGAGAAG GGAATCTGTC CAAAGTACTG CGCTCTCGAT GGAGGAGTCT TCTTCGAGGA CGGAACTCGC CGC---TAA
col-93                           CGGAGAGAAG GGAATCTGTC CAAAGTACTG CGCCATCGAC GGAGGAGTAT TCTTCGAGGA CGGAACCCGC AGA----AA
col-94                           CGGAGAGAAG GGAATCTGTC CAAAGTACTG CGCCATCGAC GGAGGAGTCT TCTTCGAGGA CGGAACCCGC AGAAAGTAA
col-122                          AGGAGAGAAG GGAATCTGTC CAAAATACTG TGCTATCGAT GGAGGAGTCT TCTTCGAGGA CGGATCCAGA CGC---TAG
                                 ---------- ---------- ---------- ---------- ---------- ---------- ---------- ---------
                                 ---------- ---------- ---------- ---------- ---------- ---------- ---------- ---------
                                 ---------- ---------- ---------- ---------- ---------- ---------- ---------- ---------
dpy-13g (RNAi)                   AGGAGAGCGT GGAATCTGTC CAAAGTACTG CGCCATCGAT GGAGGAATCT TCTTCGAGGA CGGAACTCGC CGC---TAA
dpy-13g(m1) (RNAi)               ---------- ---------- --G------- ---------- ---------- ---------- ---------- ---------
dpy-13g(m2) (RNAi)               ---------- ---------- ---------- ---------- ---------- ---------G ---------- ---------
dpy-13g(m1m2) (RNAi)             ---------- ---------- --G------- ---------- ---------- ---------G ---------- ---------
```

C

RNAi	*eri-1(-);dpy-13(-)*	*eri-1(-);dpy-13(-);nrde-3(-)*
dpy-13 (723mer)	++++	++
g(76mer)	++++	++
g(m1)	++++	++
g(m2)	++++	++
g(m1m2)	++++	++

Fig. s1

Figure S1 (A) Identification of a 76-nt sequence, *dpy-13g*, which targets the 3' end of the *dpy-13* mRNA, induced the superdumpy-like phenotype after RNAi. A series of *dpy-13* sequences were cloned in the L4440 dsRNA expression plasmid and fed L1 animals of *eri-1(mg366)*. Dumpiness was scored based on their relative length to that of N2 animal. Without RNAi, N2 and *eri-1(mg366)* were scored as 0 at the scale of 1 to 4 or – at the scale of – to ++++. After *dpy-13* RNAi, *eri-1(mg366)* exhibited a worm-ball-like phenotype, which was scored as 4 or ++++. The length of *dpy-13(e458)* animal is approximately half of that of N2, which is denoted as "dumpy" and scored as 2 or ++. Animals that exhibited a length less than 25% of that of N2 were usually classified as superdumpy or superdumpy-like and scored as 3 / 4 or +++ / ++++. (B) The 76-nt sequence in *dpy-13* is highly similar between collagen genes. Shown below are mutations introduced into the *dpy-13g*. (C) Nuclear RNAi was required for *dpy-13g*-mediated off-target silencing.