**Figure S1 Genotyping result to identify null *aex-2* alleles with the universal STOP-IN cassette.** (**A**) Diagram of the primers used for genotyping *aex-2*. The outer primer pair (oHP029f and oHP030r) will yield a 246 bp PCR product from the knock-in allele and a 203 bp PCR product from the wild-type allele; the outer and inner primer pair (oHP029f and oHP013r) will produce a 204 bp PCR product from the knock-in allele and no PCR product from the wild-type allele. The red rectangle represents the universal STOP-IN cassette described in the manuscript. (**B**) Electrophoresis of PCR products from the genotyping experiments with indicated primers of F2 progeny from 16 different F1 animals (Samples 1 to 16) that had the co-conversion phenotype, Rol. Samples 17 and 18 were controls: the wild-type strain used for injection and the bacterial food for *C. elegans*, respectively. The black arrow on the left indicates the correct PCR band (246 bp) from the desired knock-in alleles from the PCR reaction using oHP029f and oHP030r. The red arrowhead on the right indicates the correct band (204 bp) for the desired knock-in alleles from the PCR reaction using oHP029f and oHP013r. The samples with numbers in red (2, 3, 6, 9, 10, 13, and 15) were heterozygous for the knock-in alleles. Samples 1 and 16 were heterozygous for small deletions. Sample 11 appeared to be homozygous for a small insertion. The PCR reactions appeared to fail in samples 4 and 5. M1 and M2 represent 50 bp and 100 bp DNA ladders, respectively (NEB, Ipswich, MA).

**Figure S2 Genotyping result to identify null *C01B10.10* alleles with the universal STOP-IN cassette.** (**A**) Diagram of the primers used for genotyping *C01B10.10*. The outer primer pair (oHP039f and oHP040r) would yield a 214 bp PCR product from the knock-in allele and a PCR 171bp product from the wild-type allele; the outer and inner primer pair (oHP039f and oHP013r) would only produce a PCR product of 190 bp band for the knock-in allele and no product from the wild-type allele. The red rectangle represents the STOP-IN cassette described in the manuscript. (**B**) Electrophoresis of PCR products with indicated primers from genotyping F2 progeny of 24 different F1 animals that had the co-conversion phenotype, Rol. The black arrow on the left indicates the correct band (214 bp) for successful knock-in alleles from a PCR reaction using oHP039f and oHP040r. The red arrowhead on the right indicates the correct band (190 bp) for successful knock-in allele from a PCR reaction with oHP39f and oHP13r. The 16 samples in red (3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 19 and 24) were heterozygous for the desired knock-in alleles. Four samples (1, 15, 20, and 22) were putative homozygous for the desired knock-in allele. Sample 2 was likely to be homozygous for a small insertion. The three samples left (17, 21, and 23) were likely to be wild-type alleles. M1 and M2 represent 50 bp and 100 bp DNA ladders, respectively (NEB, Ipswich, MA).