A

	Sc-Ctk1	Dm-CDK12	Hs-CDK12	Sc-Bur1	Dm-CDK9	Hs-CDK9
CDK-12	4.0E-82	1.0E-122	3.0E-132	2.0E-68	4.0E-75	2.0E-85
CDK-9	4.0E-72	1.0E-76	2.0E-80	2.0E-72	7.0E-114	2.0E-126
B0495.2	1.0E-65	1.0E-60	2.0E-64	1.0E-61	1.0E-66	1.0E-64
CDK-5	1.0E-56	3.0E-59	3.0E-61	1.0E-48	2.0E-65	3.0E-64
PCT-1	3.0E-60	8.0E-59	6.0E-56	1.0E-39	3.0E-57	7.0E-55
CDK-1	2.0E-63	1.0E-58	1.0E-62	4.0E-58	6.0E-57	1.0E-58
ZC504.3	3.0E-70	5.0E-57	1.0E-68	6.0E-60	1.0E-65	4.0E-70
CDK-7	3.0E-65	1.0E-54	7.0E-65	9.0E-51	3.0E-54	5.0E-57
CDK-2	3.0E-58	3.0E-56	6.0E-63	5.0E-53	8.0E-60	3.0E-58

B

	Sc-Ctk2	Dm-CYCK	Hs-CCNK	Sc-Bur2	Dm-CYCT	Hs-CCNT1	Hs-CCNT2
CCNK-1	8.0E-05	2.0E-57	2.0E-52	ns	1.0E-20	1.0E-22	5.0E-22
CIT-1.1	ns	4.0E-22	1.0E-19	ns	1.0E-27	3.0E-31	9.0E-31
CIT-1.2	ns	4.0E-19	1.0E-23	ns	1.0E-24	2.0E-29	6.0E-27
CYL-1	3.0E-01	1.0E-22	4.0E-22	ns	9.0E-22	3.0E-20	1.0E-19
CIC-1	2.1E-01	9.0E-09	5.0E-07	ns	6.0E-03	1.0E-04	1.0E-05

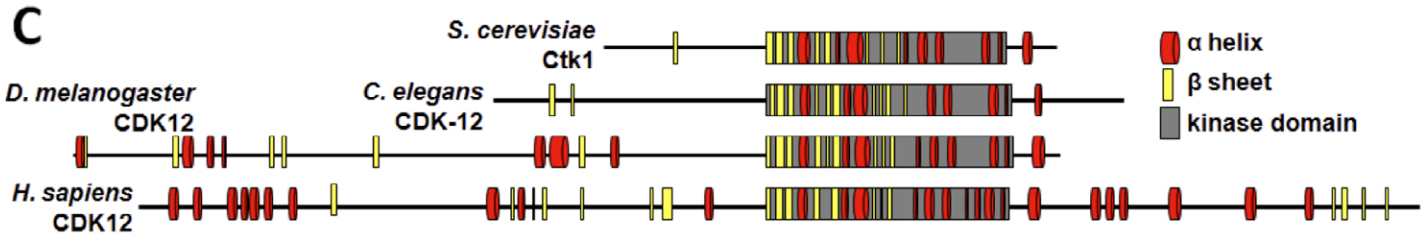

Fig. S1. Identification of *C. elegans* CDK-12. (**A**) Comparison of *C. elegans* cell-cycle class kinases with CDK-12 and CDK-9 proteins in other organisms. Rows indicate *C. elegans* kinases with the closest sequence similarity to the kinase input for BLAST (column head); columns show BLAST Expect (E) values of *C. elegans* kinases compared with known CDK12 and CDK9 proteins, as indicated. The following protein sequences were compared with the worm proteins using BLAST (Altschul et al., 1997): *S. cerevisiae* Ctk1 (Sc-Ctk1); *Drosophila melanogaster* CDK12 (Dm-CDK12); *Homo sapiens* CDK12 (Hs-CDK12); *S. cerevisiae* Bur1 (Sc-Bur1); *Drosophila melanogaster* CDK9 (Dm-CDK9); and *Homo sapiens* CDK9 (Hs-CDK9). Among the *C. elegans* kinases, the previously uncharacterized gene, B0285.1 (previously named *cdtl*-7; now named on wormbase.org and referred to in text as CDK-12) is the closest homolog to Ctk1 and other CDK12 proteins, whereas the *C. elegans* CDK-9 protein is the closest homolog to Bur1 and CDK9. These results support previous studies that reached a similar conclusion (Liu and Kipreos, 2000; Bartkowiak et al., 2010; Shaye and Greenwald, 2011). (**B**) Comparison of *C. elegans* cyclins with known cyclin K and cyclin T proteins. Comparisons presented as in A. *S. cerevisiae* Ctk2 (Sc-Ctk2), *Drosophila melanogaster* Cyclin K (Dm-CYCK), *Homo sapiens* cyclin K (Hs-CCNK), *S. cerevisiae* Bur2 (Sc-Bur2), *Drosophila melanogaster* Cyclin T (Dm-CYCT), *Homo sapiens* cyclin T (two genes: Hs-Hs-CCNT1 and Hs-CCNT2). The previously uncharacterized gene F43D2.1 (now identified in wormbase.org and in referred to in text as *ccnk-1*) is the closest homolog to Ctk2 and cyclin K, whereas the *C. elegans* CIT-1.1 and CIT-1.2 proteins are the closest homologs to cyclin T. The longest annotated isoform was used for all BLAST searches. Red boxes indicate highest homology. ns, no significant homolog detected. (**C**) Predicted secondary structure comparisons for CDK12 kinases. Secondary structure predictions performed using (Cole et al., 2008) and the kinase domain of each was determined by the NCBI domain search (Marchler-Bauer et al., 2011). All CDK12 orthologs, including the *C. elegans* protein, contain largely unstructured N and C termini outside of the kinase domain that are not present on CDK9 kinases.

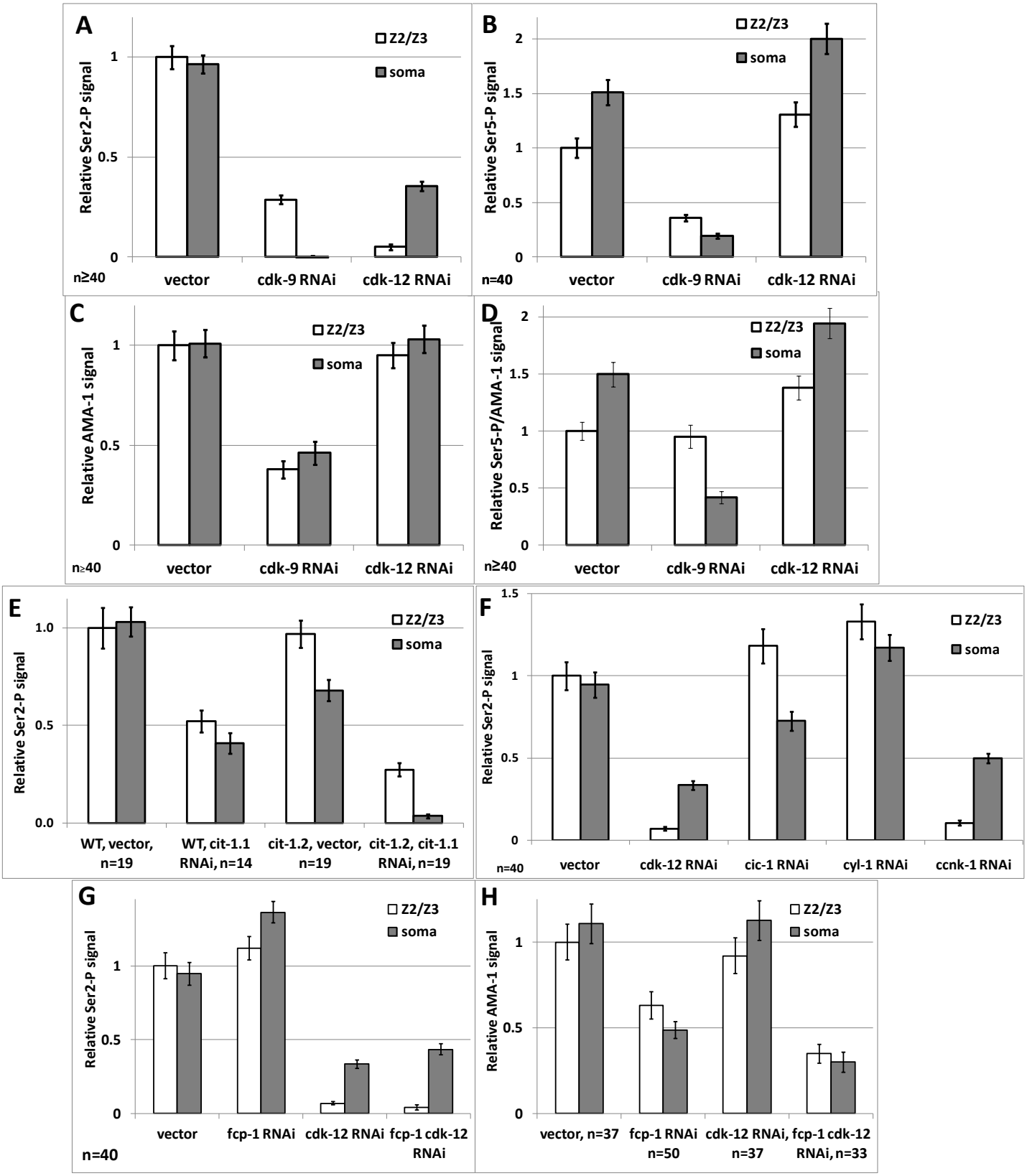

Fig. S2. Quantification of Pol II and CTD modifications in the embryo. This relates to Fig. 1. (**A**,**G**) Anti-Ser2-P immunofluorescence (E10 antibody). (**B**) Anti-Ser5-P (3E8) immunofluorescence. (**C**,**H**) Total anti-AMA-1 immunofluorescence. (**D**) Anti-Ser5-P signal normalized to total anti-AMA-1 immunofluorescence. (**E**) Anti-Ser2-P immunofluorescence of RNAi against *C. elegans* Cyclin T homolog, *cit-1.1* in WT or *cit-1.2(gk241)* mutants, showing that knockdown of both homologs phenocopies *cdk-9(RNAi)*. (**F**) RNAi targeting worm Cyclin K homologs. Knockdown of the closest sequence homolog, *ccnk-1*, phenocopies *cdk-12(RNAi)*. Signal intensities measured in Z2/Z3 or representative somatic nuclei (data are mean ± s.e.m.) in the indicated RNAi conditions. Signal is normalized to Z2/Z3 immunofluorescence in vector-treated controls

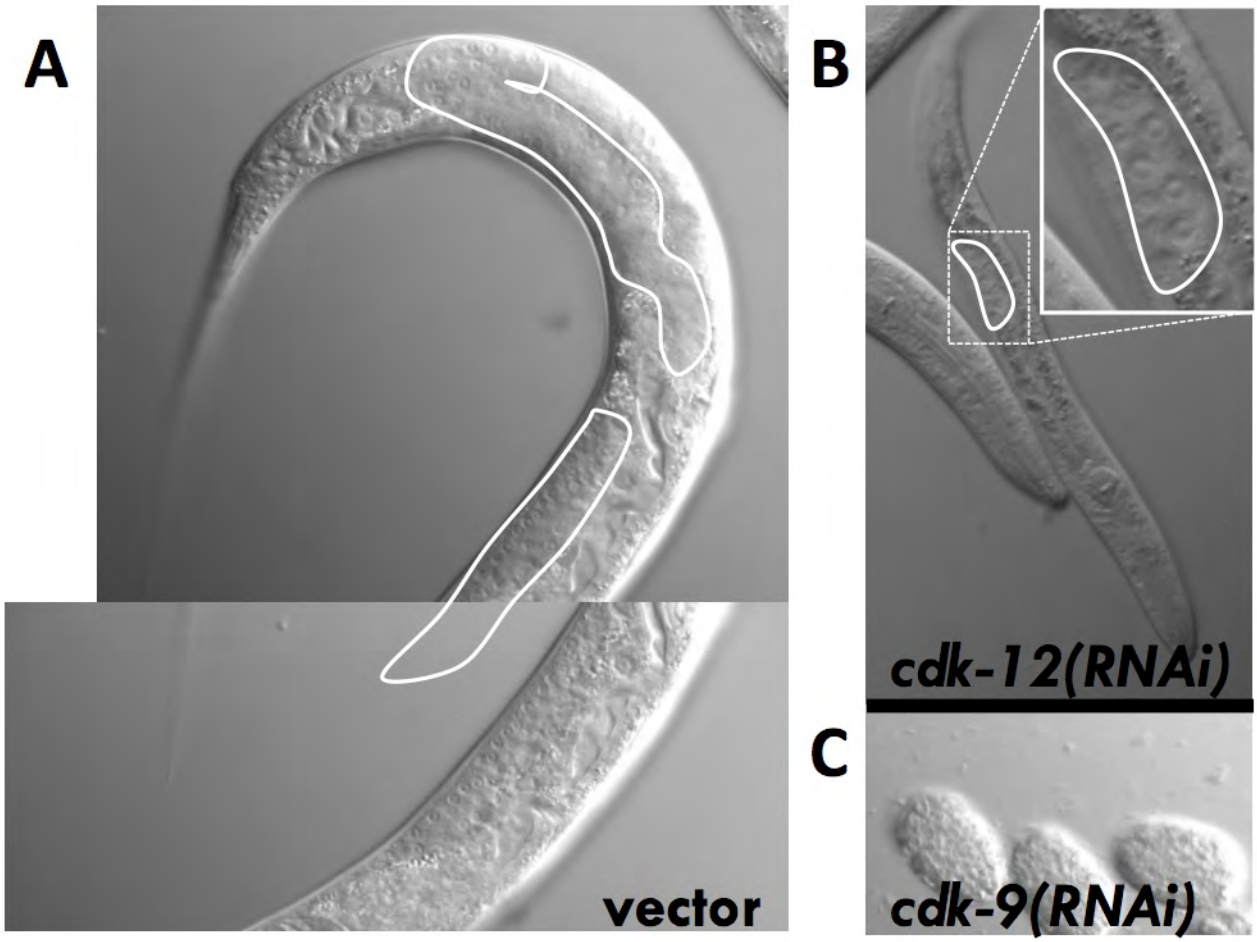

Fig. S3. Arrest phenotypes of CDK-9 and CDK-12 RNAi-treated animals. This relates to Fig. 1. DIC images of progeny ~2 days following indicated RNAi treatments. (**A**) Vector-treated animals develop normally. (**B**) Progeny of *cdk-12 (RNAi)* animals arrest after hatching. (**C**) Progeny of *cdk-9 (RNAi)* arrest as embryos (lower right). All images other than inset in B are at the same scale. Solid lines outline the germ cells and the inset in upper right shows a higher magnification of the larval gonad region, illustrating evidence of proliferation of the larval germ line.

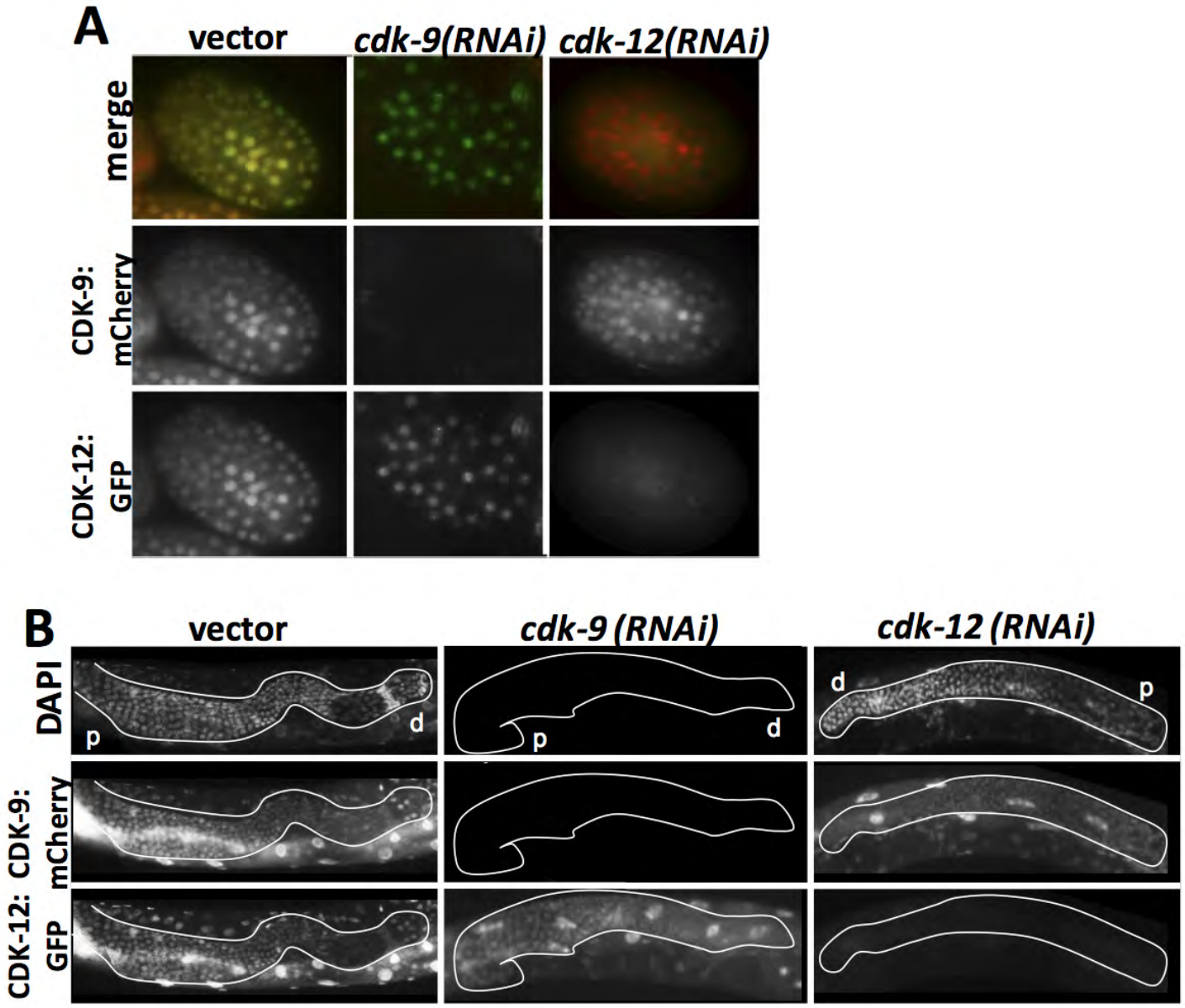

Fig. S4. Demonstration of *kinase(RNAi)* knockdown specificity and efficiency in CDK-9; CDK-12 double transgenic animals. This relates to Figs 1 and 3. (**A**,**B**) CDK-9:mCherry and CDK-12:GFP transgenes targeted by RNAi against either show that the appropriate kinase was specifically and robustly knocked down in all embryonic nuclei (A) and germline (B, outlined regions) under the RNAi conditions used.

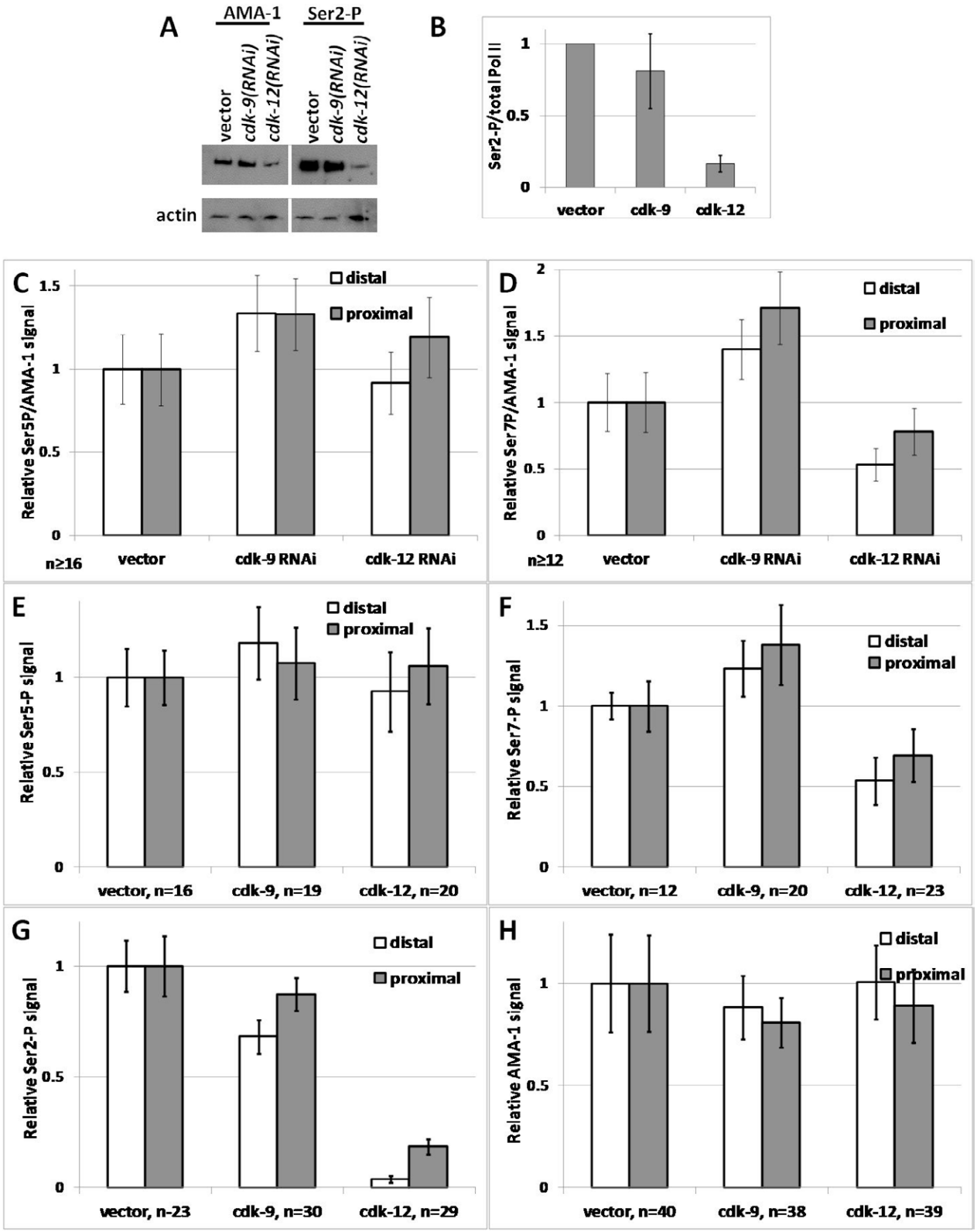

Fig. S5. Quantification of alterations in Pol II and CTD modifications following RNAi. This relates to Fig. 3. (**A**) Western blot of total protein extracted from adult worms following RNAi conditions. The same amount of protein was loaded in each lane. Total AMA-1 was detected using an antibody against the N terminus of AMA-1 and Ser2-P was detected using the H5 antibody. Decreases in total AMA-1 in *cdk-12(RNAi)* were not consistently observed. (**B**) Quantification of Ser2-P relative to total AMA-1 levels normalized to vector-treated sample. Error bars indicate s.e.m., *n*=3. (C-H) Quantification of immunofluorescence signals in the adult gonad. (**C**) Relative Ser5-P signal versus total AMA-1. (**D**) Relative Ser5-P signal versus total AMA-1. (**E**) Anti-Ser5-P (3E8) immunofluorescence. (**F**) Anti-Ser7-P (4E12) immunofluorescence. (**G**) Anti-Ser2-P (3E10) immunofluorescence. (**H**) Total anti-AMA-1 immunofluorescence. Signal intensities measured at the extreme distal or proximal end of the gonad. Error bars indicate s.e.m.. Signal is normalized to vector-treated signal.

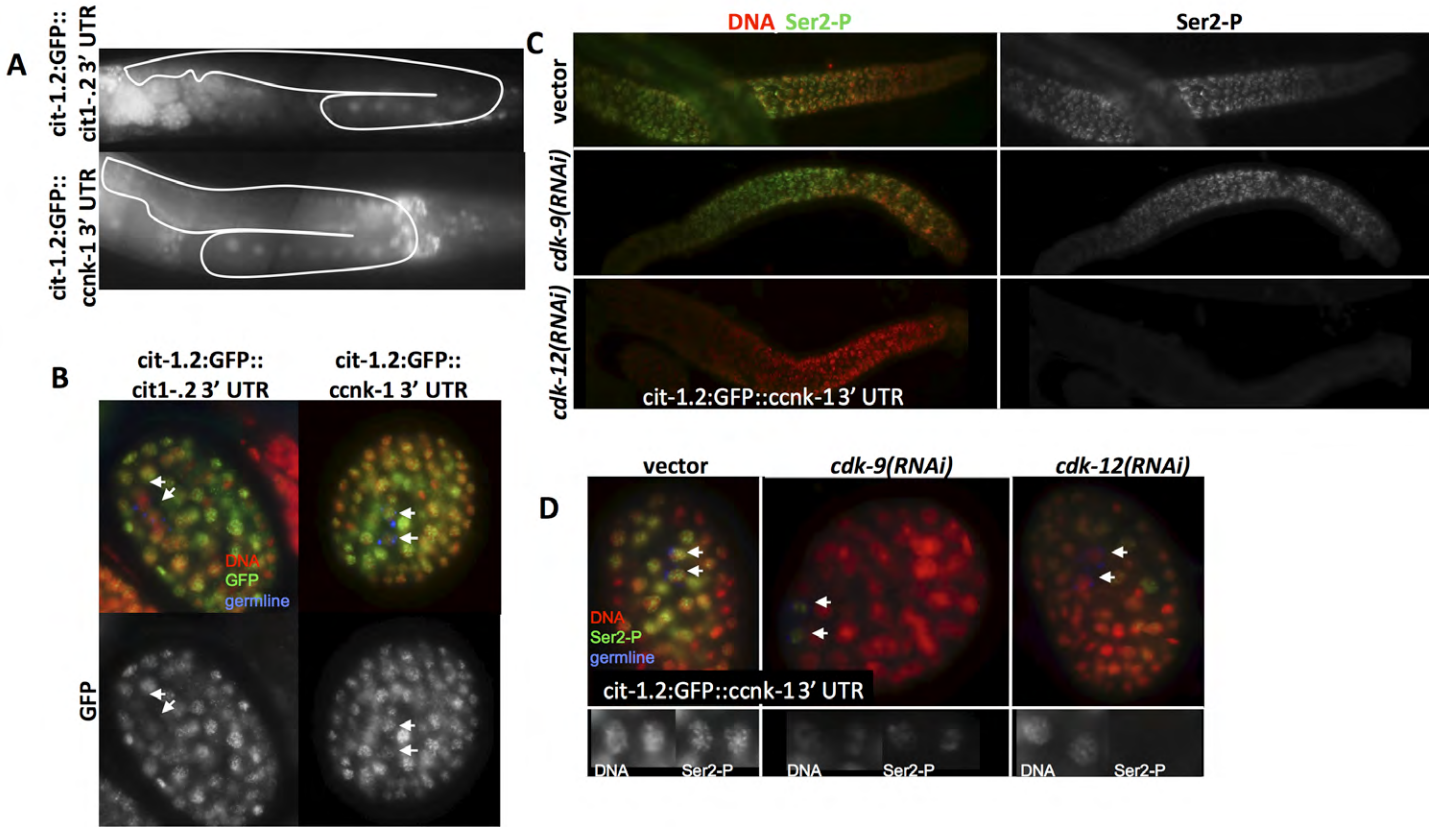

Fig. S6. Increased expression of cyclin T (CIT-1.2) does not change Ser2-P kinase requirements in germ cells. This figure relates to Fig. 4. We observed reduced CIT-1.2:GFP expression in germ cells, whereas we did not observe this with other transgenes tested. This suggests a possible correlation with the decreased requirement of CDK-9/cyclin T for Ser2-P in these cells. To test this, we increased cyclin T expression in the germline by replacing the *cit-1.2 3'UTR* with the *ccnk-1 3'UTR* in the CIT-1.2 construct. This resulted in substantially increased expression of CIT-1.2 in both embryonic and adult germ cells, but did not change the Ser2 kinase requirements. (**A**) GFP expression in an adult hermaphrodite transgenic animals expressing CIT-1.2:GFP with either its endogenous *3'UTR* or *ccnk-1 3'UTR*. White outline is around gonad. (**B**) Anti-GFP immunofluorescence of MOS-SCI transgenic lines expressing CIT-1.2 with either its endogenous *3'UTR* or *ccnk-1 K 3'UTR*. Blue, pgl staining and arrows indicate the primordial germ cells, Z2/Z3. (**C**) Anti-Ser2-P immunofluorescence images of dissected CIT-1.2:GFP:ccnk-1 3′UTR hermaphrodite gonads exposed to the indicated RNAi conditions. (**D**) Anti-Ser2-P immunofluorescence images of CIT-1.2:GFP:ccnk-1 3′ UTR embryos exposed to the indicated RNAi conditions. Blue, pgl staining; arrows indicate the germ cells, Z2/Z3, expanded in inset below.

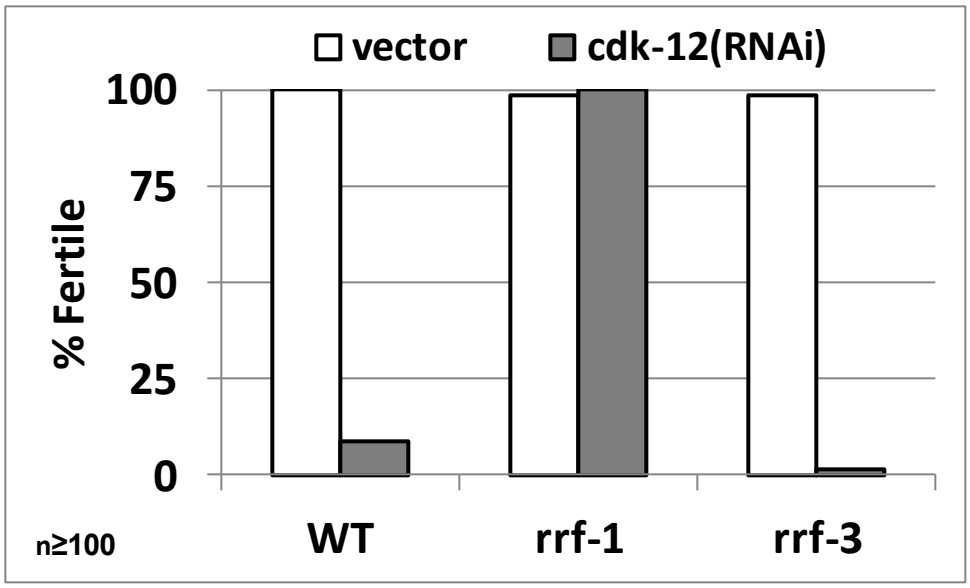

Fig. S7. Knockdown of CDK-12 specifically in the germline does not result in sterility. This figure relates to Fig. 5. Quantification of fertility in worms treated with RNAi from the L1 stage through adulthood. L1 worms hatched without food of the indicated genotype were placed on RNAi feeding plates for 72 hours. Plates were prepared by spreading ampicillin (final concentration 100 ng/ml) and IPTG (final concentration 1 mM) to NGM plates, dried for 12 hours and HT115 cells transformed with a cdk-12 RNAi construct was spread onto plate and dried for 24 hours before L1 worms were added. Fertility was scored by the presence of embryos within the ovary of the adult worm.

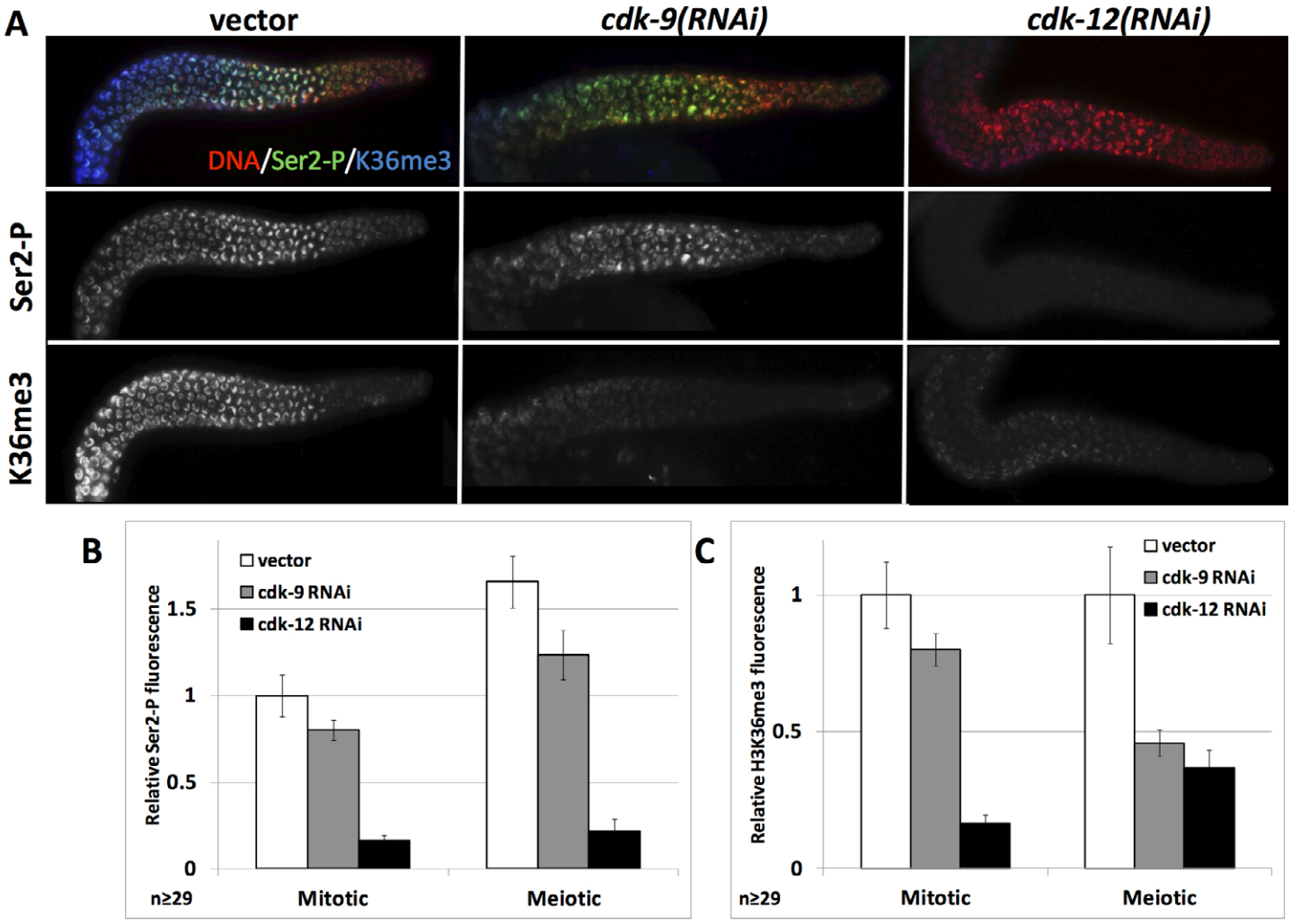

Fig. S8. CDK-9 and CDK-12 regulate transcription-dependent H3K36me3. This figure relates to Fig. 7. (**A**) Anti-Ser2-P and anti-H3K36me3 immunofluorescence images of dissected hermaphrodite gonads from *mes-4(bn85)* worms exposed to the indicated RNAi conditions. (**B**) Quantification of anti-Ser2-P immunofluorescence signal ± s.e.m. (**C**) Quantification of anti-H3K36me3 immunofluorescence signal ±s.e.m. Nuclei selected for analysis were from the most distal mitotic and meiotic regions of the gonad.

Table S1. Cyclin T RNAi embryonic lethality (*n*=17)

	cit-1.2:GFP		cit-1.2(gk214)		cit-1.2(gk214); cit-1.2:GFP	
RNAi treatment	vector	*cit-1.1(RNAi)*	vector	*cit-1.1(RNAi)*	vector	*cit-1.1(RNAi)*
Average # emb laid	30±3	25±3	13±5	9±6	24±4	24±5
Emb lethality	0.19%	0.23%	30.34%	100%	0.24%	0.00%

Either *cdk-1.2:GFP* transgenic worms (KW2140), *cit-1.2(gk214)* mutant worms, or *cit-1.2(gk214)* mutants expressing the *cdk-1.2:GFP* transgene (KW2268) were exposed to vector only or *cit-1.1(RNAi)* treatment. Adult worms were transferred to individual plates RNAi. Worms laid embryos for 6 hours, the adult worm was killed and the number of embryos laid was counted. The number of embryos unhatched after 24 hours were counted and compared with the original number laid to calculate percent lethality.

Table S2. New transgenic lines

Name	Description	Genotype	Plasmid
KW2112	CDK-12:GFP	ckSi6 (unc-119, cdk-12:GFP) I; unc-119(ed3) III	pBAB66
KW2157	CDK-12 (D462N):GFP	ckSi9 (unc-119, cdk-12:D462N:GFP) I; unc-119(ed3) III	pBAB75
KW2194	CDL-12:GFP:mex-5 3' UTR	ckSi17 (unc-119, cdk-12:GFP:mex-5 3' UTR) I; unc-119(ed3) III	pBAB96
KW2206	CDK-12:GFP:pal-1 3' UTR	ckSi26 (unc-119, cdk-12:GFP:pal-1 3' UTR) I; unc-119(ed3) III	pBAB97
KW2117	CCNK-1;FLAG	ckSi10 (unc-119, ccnk-1:FLAG) II; unc-119(ed3) III	pBAB76
KW2147	CCNK-1:GFP	ckSi15(unc-119, ccnk-1:GFP)II; unc-119(ed3) III	pBAB88
KW2115	CDK-9:mCherry	ckSi4 (unc-119, cdk-9:mCherry) II; unc-119(ed3) III	pBAB61
KW2167	CDK-9:GFP	ckSi13 (unc-119, cdk-9:GFP) II; unc-119(ed3) III	pBAB86
KW2159	CDK-9(D235N):GFP	ckSi12 (unc-119, cdk-9D235N:mCherry) II; unc-119(ed3) III	pBAB85
KW2195	CDK-9:mCherry:mex-5 3' UTR	ckSi20 (unc-119, cdk-9:GFP:mex-5 3' UTR) II; unc-119(ed3) III	pBAB102
KW2196	CDK-9:mCherry:pal-1 3' UTR	ckSi21 (unc-119, cdk-9:GFP:pal-1 3' UTR) II; unc-119(ed3) III	pBAB103
KW2096	CIT-1.1:FLAG	ckSi2 (unc-119, cit-1.1:FLAG) II; unc-119(ed3) III	pBAB58
KW2098	CIT-1.2:FLAG	ckSi3 (unc-119, cit-1.2:FLAG) II; unc-119(ed3) III	pBAB59
KW2140	CIT-1.2:GFP	ckSi14(unc-119, cit-1.2:GFP)II; unc-119(ed3) III	pBAB87
KW2104	SPT-5:GFP	ckSi5 (unc-119, spt-5:GFP) II; unc-119(ed3) III	pBAB62
KW2237	CIT-1.2:FLAG:CCNK-1 3' UTR	ckSi25 (unc-119, cit-1.2:FLAG:ccnk-1 3' UTR) II; unc-119(ed3) III	pBAB110

Table S3. Additional strains made

Name	Description	Genotype
KW2126	CDK-12:GFP rescue of cdk-12 deletion	cdk-12(tm3846)III; ckSi6 (unc-119, cdk-12:GFP) I
KW2214	CDK-12:GFP rescue of cdk-12 deletion	cdk-12(ok3664)III; ckSi6 (unc-119, cdk-12:GFP) I
KW2209	CDK-12(D462N):GFP in balanced cdk-12 deletion	cdk-12(ok3664)/qC1 qIs26 (lag-2:GFP; rol-6) III; ckSi9 (unc-119, cdk-12 D462N:GFP) I; unc-119(ed3) III
KW2210	CDK-12:GFP:mex-5 3' UTR in balanced cdk-12 deletion	cdk-12(ok3664)/qC1 qIs26 (lag-2:GFP; rol-6) III; ckSi17 (unc-119, cdk-12:GFP:mex-5 3' UTR) I
KW2211	CDK-12:GFP:pal-1 3' UTR in balanced cdk-12 deletion	cdk-12(ok3664)/qC1 qIs26 (lag-2:GFP; rol-6) III; ckSi18 (unc-119, cdk-12:GFP:pal-1 3' UTR) I
KW2183	CDK-9:mCherry rescue of cdk-9 deletion	cdk-9(tm2884) I; ckSi4 (unc-119, cdk-9:mCherry) II
KW2181	CDK-9(D235N):mCherry in balanced cdk-9 deletion mutant	cdk-9(tm2884)/ht2 qIs48 (myo-2:GFP) I, III; ckSi12 (unc-119, cdk-9 D235N:mCherry) II
KW2204	CDK-9:mCherry:mex-5 3' UTR in balanced cdk-9 deletion	cdk-9(tm2884)/ht2 qIs48 (myo-2:GFP) I, III; ckSi20 (unc-119, cdk-9:mCherry:mex-5 3' UTR) II
KW2205	CDK-9:mCherry:pal-1 3' UTR in balanced cdk-9 deletion	cdk-9(tm2884)/ht2 qIs48 (myo-2:GFP) I, III; ckSi21 (unc-119, cdk-9:mCherry:pal-1 3' UTR) II
KW2185	CDK-12:GFP, CDK-9:mCherry	ckSi6 (unc-119, cdk-12:GFP) I; ckSi4 (unc-119, cdk-9:mCherry) II; unc-119(ed3) III
KW2268	CIT-1.2:GFP rescue of cit-1.2 deletion	cit-1.2(gk241) III; ckSi14(unc-119, cit-1.2:GFP) II

Table S4. Cloning methods

Name	Parent vector	Description	Made from pBAB plasmid	Cloning method	Primers
pBAB30	pCR blunt	cit-1.1 ORF	-	blunt ligation with PCR prod: cit-1.1 ORF	BB336, BB240
pBAB31	pCR blunt	cit-1.2 ORF	-	blunt ligation with PCR prod: cit-1.2 ORF	BB316, BB317
pBAB33	pCR blunt	cdk-12 ORF	-	blunt ligation with PCR prod: cdk-12 ORF	BB334, BB226
pBAB34	pCR blunt	cdk-9 5' ORF	-	blunt ligation with PCR prod: cdk-9 5' ORF	BB333, BB237
pBAB35	pCR blunt	spt-5 ORF	-	blunt ligation with PCR prod: spt-5 ORF	BB298, BB299
pBAB36	pCR blunt	Pcit-1.1 cit-1.1 ORF	pBAB30	KpnI, NheI ligation with PCR prod: Pcit-1.1	BB322, BB323
pBAB37	pCR blunt	Pcit-1.2 cit-1.2 ORF	pBAB31	BamHI, NheI ligation with PCR prod: Pcit-1.2	BB312, BB313
pBAB39	pCR blunt	Pcdk-12 cdk-12 ORF	pBAB33	KpnI, NheI ligation with PCR prod: Pcdk-12	BB320, BB321
pBAB40	pCR blunt	Pcdk-9 cdk-9 5' ORF	pBAB34	KpnI, NheI ligation with PCR prod: Pcdk-9	BB318, BB319
pBAB41	pCR blunt	Pcdk-9 cdk-9 whole ORF	pBAB40	AvrII, SbfI ligation with PCR prod: Pcit-1.5	BB238, BB332
pBAB42	pCR blunt	Pspt-5 spt-5 ORF	pBAB35	KpnI, NheI ligation with PCR prod: Pspt-5	BB300, BB301
pBAB43	pCR blunt	Pcit-1.1 cit-1.1 ORF FLAG	pBAB36	SbfI, NotI ligation with PCR product: FLAG from pFS26	BB330, BB331
pBAB44	pCR blunt	Pcit-1.2 cit-1.2 ORF FLAG	pBAB37	SbfI, NotI ligation with PCR product: FLAG from pFS26	BB330, BB331
pBAB46	pCR blunt	Pcdk-12 cdk-12 ORF GFP	pBAB39	SbfI, NotI ligation with PCR product: GFP from pFS19	BB326, BB327
pBAB47	pCR blunt	Pcdk-9 cdk-9 whole ORF mCherry	pBAB41	SbfI, NotI ligation with PCR product: mCherry pFS26	BB328, BB329
pBAB48	pCR blunt	Pspt-5 spt-5 ORF GFP	pBAB42	SbfI, NotI ligation with PCR product: GFP from pFS19	BB326, BB327
pBAB49	pCR blunt	Pcit-1.1 cit-1.1 ORF FLAG cit-1.1 3' UTR	pBAB43	NotI, ApaI ligation with PCR prod: cit1.1 3' UTR	BB310, BB311
pBAB50	pCR blunt	Pcit-1.2 cit-1.2 ORF FLAG cit-1.2 3' UTR	pBAB44	NotI, ApaI ligation with PCR prod: cit1.2 3' UTR	BB314, BB315
pBAB51	pCR blunt	Pccnk-1 ccnk-1 ORF FLAG ccnk-1 3' UTR	pBAB57+pBAB65	KpnI, SbfI ligation	
pBAB52	pCR blunt	Pcdk-12 cdk-12 ORF GFP cdk-12 3' UTR	pBAB46	NotI, ApaI ligation with PCR prod: cdk-12 3' UTR	BB306, BB307
pBAB53	pCR blunt	Pcdk-9 cdk-9 ORF mCherry cdk-9 3' UTR	pBAB47	NotI, ApaI ligation with PCR prod: cdk-9 3' UTR	BB304, BB392
pBAB54	pCR blunt	Pspt-5 spt-5 ORF GFP spt-5 3' UTR	pBAB48	NotI, ApaI ligation with PCR prod: spt-5 3' UTR	BB302, BB303
pBAB57	pCR blunt	Pccnk-1 ccnk-1 ORF FLAG cit-1.1 3' UTR	pBAB49	KpnI, SbfI ligation with PCR prod: Pccnk-1 ccnk-1 ORF	BB324, BB228
pBAB58	pCFJ151	cit-1.1 FLAG	pBAB49	blunt ligation after KpnI, ApaI digestion	
pBAB59	pCFJ151	cit-1.2 FLAG	pBAB50	blunt ligation after BamHI, ApaI digestion	
pBAB60	pCFJ151	cdk-12 GFP	pBAB52	blunt ligation after KpnI, ApaI digestion	
pBAB61	pCFJ151	cdk-9 mCherry	pBAB53	blunt ligation after KpnI, ApaI digestion	
pBAB62	pCFJ151	spt-5 GFP	pBAB54	blunt ligation after KpnI, ApaI digestion	
pBAB65	pCR blunt	Pcit-1.2 cit-1.2 ORF FLAG ccnk-1 3' UTR	pBAB50	NotI, ApaI ligation with PCR product: ccnk-1 3' UTR	BB308, BB309
pBAB66	pCFJ352	cdk-12 GFP	pBAB52	blunt ligation after KpnI, ApaI digestion	
pBAB68	pCR blunt	cdk-9 5' ORF D235N	pBAB34	Qiagen XL QC	BB385, BB386
pBAB71	pCR blunt	cdk-12 ORF D462N	pBAB33	Qiagen XL QC	BB383, BB384
pBAB75	pCFJ352	cdk-12 D462N GFP	pBAB66+pBAB71	SphI, NheI ligation	
pBAB76	pCFJ151	ccnk-1 FLAG	pBAB51	blunt ligation after KpnI, ApaI digestion	
pBAB79	pCR blunt	Pspt-5 spt-5 ORF FLAG spt-5 3' UTR	pBAB54	SbfI, NotI ligation with PCR product: FLAG from pFS26	BB330, BB331
pBAB80	pCR blunt	Pcdk-12 cdk-12 ORF FLAG cdk-12 3' UTR	pBAB52	SbfI, NotI ligation with PCR product: FLAG from pFS26	BB330, BB331
pBAB81	pCR blunt	Pcit-1.1 cit-1.1 ORF GFP cit-1.1 3' UTR	pBAB49	SbfI, NotI ligation with PCR product: GFP from pFS19	BB326, BB327
pBAB82	pCR blunt	Pcit-1.2 cit-1.2 ORF GFP cit-1.2 3' UTR	pBAB50	SbfI, NotI ligation with PCR product: GFP from pFS19	BB326, BB327
pBAB83	pCR blunt	Pcdk-9 cdk-9 ORF GFP cdk-9 3' UTR	pBAB53	SbfI, NotI ligation with PCR product: GFP from pFS19	BB326, BB327
pBAB84	pCR blunt	Pccnk-1 ccnk-1 ORF GFP ccnk-1 3' UTR	pBAB51	SbfI, NotI ligation with PCR product: GFP from pFS19	BB326, BB327
pBAB85	pCFJ151	cdk-9 D235N mCherry	pBAB61+pBAB68	EcoNI, SphI ligation	
pBAB86	pCFJ151	cdk-9 GFP	pBAB83+pBAB61	NotI, SphI ligation	
pBAB87	pCFJ151	cit-1.2 GFP	pBAB82+pBAB59	NotI, NheI ligation	

pBAB88	pCFJ151	ccnk-1 GFP	pBAB84+pBAB76	NotI, SphI ligation	
pBAB96	pCFJ352	cdk-12:GFP:mex-5 3' UTR	pBAB66	NotI, SnaBI ligation with PCR product: mex-5 3' UTR as specified in (Merritt et al., 2008)	BB408, BB424
pBAB97	pCFJ352	cdk-12:GFP:pal-1 3' UTR	pBAB66	NotI, SnaBI ligation with PCR product: pal-1 3' UTR as specified in (Merritt et al., 2008)	BB410, BB425
pBAB102	pCFJ151	cdk-9:mCherry:mex-5 3' UTR	pBAB61	NotI, XhoI ligation with PCR product: mex-5 3' UTR as specified in (Merritt et al., 2008)	BB408, BB414
pBAB103	pCFJ151	cdk-9:mCherry:pal-1 3' UTR	pBAB61	NotI, XhoI ligation with PCR product: pal-1 3' UTR as specified in (Merritt et al., 2008)	BB410, BB415

Table S5. Primer sequences

Name	Sequence	Description
BB226	gactCCTGCAGGcttgaaaaatactgactg	cdk-12 ORF rev SbfI
BB228	gactCCTGCAGGaaaagttgtgagcttctttttctcc	ccnk-1 ORF rev SbfI
BB237	gactCCTGCAGGgtcacctaggccacgctttgaaaatcgatg	cdk-9 inside ORF first half rev SbfI AvrII use with BB235
BB238	gactGGCCGGCCcctaggaaacccccctgtggaaaag	cdk-9 inside ORF second half fwd FseI AvrII use with BB236
BB240	gactCCTGCAGGttctagttcaccatcttccaaatc	cit-1.1 ORF rev SbfI
BB245	TCAGAGCTCTAATCGGCGGT	cdk-9(tm2884) deletion confirmation fwd
BB246	TTGCGGTGGCCGAGGTATAC	cdk-9(tm2884) deletion confirmation rev
BB247	ACTCGGCCTGTGTAAGTTAT	cdk-12(tm3846) deletion confirmation fwd
BB248	AGCTCGCCTCTGCAAACAAT	cdk-12(tm3846) deletion confirmation rev
BB249	taattttccgggtccttgtg	cit-1.2(gk241) deletion confirmation fwd
BB250	atggcctcaacttcttcacg	cit-1.2(gk241) deletion confirmation rev
BB298	gactGCTAGCatgtcctctgacgaaagtgatgc	spt-5 ORF fwd NheI
BB299	gatcCCTGCAGGagtttcgctatgcattttgcagc	spt-5 ORF rev minus stop SbfI
BB300	GATCggtaccGCCCGGGCgcaagttgtgggttttggac	spt-5 promoter fwd KpnI SrfI
BB301	gactGCTAGCtgctaactgaaacatttaagtaaat	spt-5 promotoer rev NheI
BB302	gactGCGGCCGCaaagttgttcactttactatttattc	spt-5 3' UTR fwd NotI
BB303	gactGGGCCCGCCCGGGCctcttcattcttgatctcac	spt-5 3' UTR rev SrfI ApaI
BB304	gactGCGGCCGCgctcttttccctatttttttcc	cdk-9 3' UTR fwd NotI
BB306	gactGCGGCCGCaaattctgatttttttgttgatta	cdk-12 3' UTR fwd NotI
BB307	gactGGGCCCGCCCGGGCttttgatccactgctgcttg	cdk-12 3' UTR rev SrfI ApaI
BB308	gactGCGGCCGCttttcaaaaatctaatatttctatat	ccnk-1 3' UTR fwd NotI
BB309	gactGGGCCCGCCCGGGCaaccacacccacttttcaagc	ccnk-1 3' UTR rev SrfI ApaI
BB310	gactGCGGCCGCttatttttagttcgtatttttattag	cit-1.1 3' UTR fwd NotI
BB311	gactGGGCCCGCCCGGGCttttatccccaaatcttgatgag	cit-1.1 3' UTR rev SrfI ApaI
BB312	GATCggatccGCCCGGGCtgaaacctggacgacacaag	cit-1.2 promoter fwd BamHI SrfI
BB313	gactGCTAGCactgatcaatgctgaaaaaaatatat	cit-1.2 promoter rev NheI
BB314	gactGCGGCCGCgagcttccctcactgttatttccg	cit-1.2 3' UTR fwd NotI
BB315	gactGGGCCCGCCCGGGCcatcatgccttgtcatttcc	cit-1.2 3' UTR rev SrfI ApaI
BB316	gactGCTAGCatgtcgaattcgaacaaattgatcg	cit-1.2 ORF fwd NheI
BB317	gatcCCTGCAGGaacgagctccccttcctccatctc	cit-1.2 ORF rev minus stop SbfI
BB318	GATCggtaccGCCCGGGCaataataaaaaccacgggtttcagg	cdk-9 promoter fwd KpnI SrfI
BB319	acgtGCTAGCttgctctgaaaattgttaa	cdk-9 promoter rev NheI
BB320	GATCggtaccGCCCGGGCacgcattatcattgcgtttg	cdk-12 promoter fwd KpnI SrfI
BB321	acgtGCTAGCggctgaaaatgataagaatattaaag	cdk-12 promoter rev NheI
BB322	GATCggtaccGCCCGGGCaatgttcacgacgaaacacg	cit-1.1 promoter fwd KpnI SrfI
BB323	acgtGCTAGCcgcatttgagtttaattctc	cit-1.1 promoter rev NheI
BB324	GATCggtaccGCCCGGGCcgcggaacgtttataattca	ccnk-1 promotoer fwd KpnI SrfI
BB326	AAAGCCTGCAGGgATGAGTAAAGGAGAAG	GFP fwd +1 SbfI
BB327	GCAGGCGGCCGCTTATTTGTATAGTTC	GFP rev STOP NotI
BB328	agctcCCTGCAGGgATGGTGAGCAAGGGCGAGGAG	mCherry fwd +1 SbfI
BB329	tctaGCGGCCGCTTACTTGTACAGCTCGTCCATGC	mCherry rev STOP NotI
BB330	agctCCTGCAGGgGCCGCAGATTAC	FLAG fwd +1 SbfI
BB331	tctaGCGGCCGCTTACTTATCATCATC	FLAG rev STOP NotI
BB332	CATcCCTGCAGGaaaaatagtatcgcgatattgtc	cdk-9 ORF rev SbfI
BB333	gactGCTAGCatgagtgctcaaaactatcacgcc	cdk-9 ORF fwd NheI
BB334	gactGCTAGCatggaaatatcgccagg	cdk-12 ORF fwd NheI
BB336	gactGCTAGCatgtcggtgtcgagtcgaggcg	cit-1.1 ORF fwd NheI
BB383	gagctgaagattgctaatctcggactggcac	cdk-12 kinase-dead QC D462N fwd
BB384	gtgccagtccgagattagcaatcttcagctc	cdk-12 kinase-dead QC D462N rev
BB385	gaatactcaaacttgccaattttggactagctcgg	cdk-9 kinase-dead QC D235N fwd

BB386	ccgagctagtccaaaattggcaagtttgagtattc	cdk-9 kinase-dead QC D235N rev
BB392	gactCGATCGGCCCGGGCgtcaccacgtgtggctattg	cdk-9 3' UTR rev SrfI PvuI
BB408	gactGCGGCCGCtaggttgtatgttaccacac	mex-5 3' UTR fwd NotI
BB410	gactGCGGCCGCataagtactcatctacttacaaag	pal-1 3' UTR fwd NotI
BB414	gactCTCGAGattccataaaaaaccatccg	mex-5 3' UTR rev XhoI
BB415	gactCTCGAGtggatagttaatctcatc	pal-1 3' UTR rev XhoI
BB424	gacTACGTAattccataaaaaaccatccg	mex-5 3' UTR rev SnaBI
BB425	gactTACGTAtggatagttaatctcatc	pal-1 3' UTR rev SnaBI
BB451	tccttctcccatagtcgtgc	cdk-12(ok3664) deletion confirmation fwd
BB452	tgacattcattttgccgcta	cdk-12(ok3664) deletion confirmation rev
BB492	agcgctcaagatcactccat	pie-1 fwd qPCR (Curran et al., 2009)
BB493	gtgcaattgtcgttgtacgg	pie-1 rev qPCR (Curran et al., 2009)
BB494	cgctactccaatgcctcttc	pgl-1 fwd qPCR (Curran et al., 2009)
BB495	actggtgggagcaaattgac	pgl-1 rev qPCR (Curran et al., 2009)
BB496	tccaaagaacgaatacccagactataac	gld-1 fwd qPCR (Merritt and Seydoux, 2010)
BB497	acggtgagcactttcctttg	gld-1 rev qPCR (Merritt and Seydoux, 2010)
BB498	agagattttcgtatctctaaataacggaatc	him-3 fwd qPCR (Merritt and Seydoux, 2010)
BB499	gggtgtatagtcttttggagctttttc	him-3 rev qPCR (Merritt and Seydoux, 2010)
BB500	atgtggccgatataatttcacttg	syp-2 fwd PCR (Merritt and Seydoux, 2010)
BB501	attgtcagatcttgtgtcattttcg	syp-2 rev qPCR (Merritt and Seydoux, 2010)
BB502	cattaattaaatcgatgaacaacttgtcac	syp-3 fwd qPCR (Merritt and Seydoux, 2010)
BB503	atggcgacttctagttgtttcttttc	syp-3 rev qPCR (Merritt and Seydoux, 2010)
BB504	attcggaggacagtgacacaa	htp-1 fwd qPCR (Merritt and Seydoux, 2010)
BB505	gtgctttctcgagagactcagttatatc	htp-1 rev qPCR (Merritt and Seydoux, 2010)
BB506	atcgttcaattcggaggacac	htp-2 fwd qPCR (Merritt and Seydoux, 2010)
BB507	gtgttttctcgagagaatcggttatatt	htp-2 rev qPCR (Merritt and Seydoux, 2010)
BB508	cgggatttggtatcaaaagtgtg	zim-1 fwd qPCR (Merritt and Seydoux, 2010)
BB509	gttgaaggacacgatttttttttaaaac	zim-1 rev qPCR (Merritt and Seydoux, 2010)
BB510	ggcttcggaattctcaacattc	zim-2 fwd qPCR (Merritt and Seydoux, 2010)
BB511	atcgttttcagttgatctccaaaac	zim-2 rev qPCR (Merritt and Seydoux, 2010)
BB512	atggtcggccacaatataatcc	nos-3 fwd qPCR (Merritt and Seydoux, 2010)
BB513	agcataatattgagcttgtccactatgtc	nos-3 rev qPCR (Merritt and Seydoux, 2010)
BB514	tgtcttctccgtaacattct	puf-5 fwd qPCR (Gassmann et al., 2012)
BB515	gtctcctgatccttcacata	puf-5 rev qPCR (Gassmann et al., 2012)
BB516	aacatatgcatttctcgaat	ani-2 fwd qPCR (Gassmann et al., 2012)
BB517	acaggacactgttgtttctc	ani-2 rev qPCR (Gassmann et al., 2012)
BB522	aaaaagtccaggaaggcggt	rad-50 fwd qPCR
BB523	cgaaacgtttttggcgttgc	rad-50 rev qPCR
BB524	ttggaacaatacagagaagattagc	U6 fwd qPCR
BB525	aaaatttggaacgcttcacg	U6 rev qPCR
BB526	ctatccggaaagggtgtctg	18S fwd qPCR
BB527	ctccgttacccgtaacaacc	18S rev qPCR