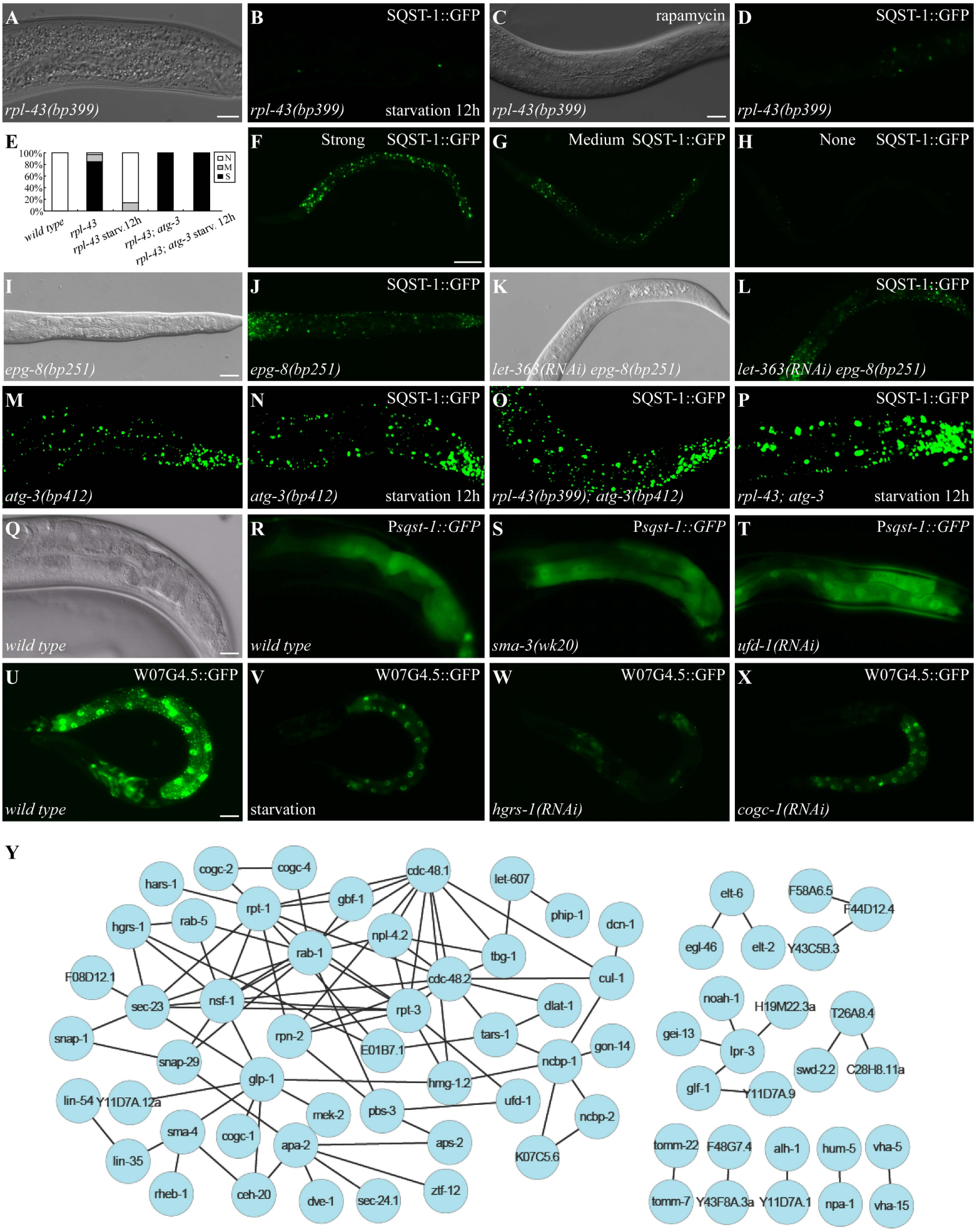
A
rpl-43(bp399)
B
SQST-1::GFP
rpl-43(bp399)
starvation 12h
C
rapamycin
rpl-43(bp399)
D
SQST-1::GFP
rpl-43(bp399)
E
100%
80%
60%
40%
20%
0%
N
M
S
wild type
rpl-43
rpl-43 starv.12h
rpl-43; atg-3
rpl-43; atg-3 starv. 12h
F
Strong
SQST-1::GFP
G
Medium
SQST-1::GFP
H
None
SQST-1::GFP
I
epg-8(bp251)
J
SQST-1::GFP
epg-8(bp251)
K
let-363(RNAi) epg-8(bp251)
L
SQST-1::GFP
let-363(RNAi) epg-8(bp251)
M
atg-3(bp412)
N
SQST-1::GFP
atg-3(bp412)
starvation 12h
O
SQST-1::GFP
rpl-43(bp399); atg-3(bp412)
P
SQST-1::GFP
rpl-43; atg-3
starvation 12h
Q
wild type
R
Psqst-1::GFP
wild type
S
Psqst-1::GFP
sma-3(wk20)
T
Psqst-1::GFP
ufd-1(RNAi)
U
W07G4.5::GFP
wild type
V
W07G4.5::GFP
starvation
W
W07G4.5::GFP
hgrs-1(RNAi)
X
W07G4.5::GFP
cogc-1(RNAi)
Y
cogc-2
cogc-4
hars-1
cdc-48.1
let-607
gbf-1
rpt-1
phip-1
dcn-1
hgrs-1
rab-5
npl-4.2
rab-1
tbg-1
F08D12.1
cdc-48.2
cul-1
sec-23
nsf-1
rpt-3
dlat-1
snap-1
rpn-2
tars-1
E01B7.1
gon-14
snap-29
ncbp-1
glp-1
hmg-1.2
lin-54
Y11D7A.12a
ufd-1
mek-2
pbs-3
ncbp-2
sma-4
cogc-1
apa-2
aps-2
lin-35
K07C5.6
rheb-1
ceh-20
dve-1
sec-24.1
ztf-12
elt-6
F58A6.5
F44D12.4
egl-46
elt-2
Y43C5B.3
noah-1
H19M22.3a
T26A8.4
gei-13
lpr-3
swd-2.2
C28H8.11a
glf-1
Y11D7A.9
tomm-22
F48G7.4
alh-1
hum-5
vha-5
tomm-7
Y43F8A.3a
Y11D7A.1
npa-1
vha-15

Figure S3

Fig S3| RNAi inactivation of a variety of signaling factors results in suppression of the SQST-1 accumulation phenotype in *rpl-43* mutants

(A-D) SQST-1::GFP aggregates in *rpl-43(bp399)* mutants disappear after 12 hours starvation (A,B) or rapamycin treatment (C,D). (A) and (C): DIC images of the animals shown in (B) and (D), respectively.

(E) Percentage of animals with different levels of SQST-1::GFP aggregate accumulation. S: many SQST-1::GFP aggregates were detected in all intestinal cells, as in the *rpl-43(bp399)* mutant intestine; M: fewer SQST-1::GFP aggregates were present in some but not all intestinal cells; N: no or very few SQST-1::GFP aggregates were observed in the intestinal cells. At least thirty animals were examined in each group.

(F-H) Examples of the three different levels of SQST-1::GFP aggregate accumulation that were used for classification. (F): strong. (G): medium. (H): none.

(I-L) *let-363(RNAi)* does not suppress the SQST-1::GFP aggregate accumulation phenotype in *epg-8(bp251)* mutants. (I) and (K): DIC images of the animals shown in (J) and (L), respectively.

(M-N) SQST-1::GFP aggregates in *atg-3(bp412)* mutants persist after 12 hours starvation.

(O-P) SQST-1::GFP aggregates accumulate in the intestine in *rpl-43(bp399); atg-3(bp412)* mutants (O), and persist after 12 hours starvation (P).

(Q-T) Expression of P*sqst-1::GFP* in the intestine in wild-type animals and *sma-3(wk20)* and *ufd-1(RNAi)* mutants. P*sqst-1::GFP* expression is unchanged in the mutants. (Q): DIC image of the animal shown in (R).

(U) W07G4.5::GFP accumulates into a large number of aggregates in the cytoplasm in the intestine in wild-type L1 larvae. W07G4.5::GFP is also strongly expressed in the nucleus.

(V) Upon starvation, levels of W07G4.5::GFP in L1 larvae are dramatically decreased and the aggregates in the cytoplasm largely disappear.

(W-X) Levels of W07G4.5::GFP are dramatically decreased in *hgrs-1(RNAi)* and *cogc-1(RNAi)* animals.

(Y) Functional interactions among genes which, when inactivated, suppress the SQST-1 accumulation phenotype in *rpl-43(bp399)* mutant larvae.

Scale bars: 10 μm (A,B,M-P); 100 μm (F-H); 20 μm (C,D,I-L,Q-X).