

Detailed genotypes

Figure 1

1a,e: *y,w,ey-FLP/y,w;UAS-Ras^{V12}, pmCh-atg8a/act>y⁺>GAL4, UAS-GFP; Frt82B/Frt82B, tub-GAL80*

1b,f: *y,w,ey-FLP/y,w;UAS-Ras^{V12}, pmCh-atg8a/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80*

1c: *y,w,ey-FLP/y,w;UAS-Ras^{V12}, pmCh-atg8a/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80, atg13^{Δ81}*

1g: *y,w,ey-FLP/y,w;UAS-Ras^{V12}, pmCh-atg8a/act>y⁺>GAL4, UAS-GFP; Frt82B, atg13^{Δ81}, scrib²/Frt82B, tub-GAL80, atg13^{Δ81}*

1h: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80*

Figure 2

2a: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80*

2b: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, atg13^{Δ81}, scrib²/Frt82B, tub-GAL80*

2c: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80, atg13^{Δ81}*

2d: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, atg13^{Δ81}, scrib²/Frt82B, tub-GAL80, atg13^{Δ81}*

2e: *y,w,ey-FLP/y,w; g-atg13,UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80, atg13^{Δ81}*

2g: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80*

2h: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80, atg14^{Δ5.2}*

2i: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, atg13^{Δ81}, scrib²/Frt82B, tub-GAL80, atg14^{Δ5.2}*

2k: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, atg13^{Δ81}, scrib²/Frt82B, tub-GAL80, atg13^{Δ81}*

y,w,ey-FLP/ey3.5-atg13;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, atg13^{Δ81}, scrib²/Frt82B, tub-GAL80, atg13^{Δ81}

Figure 3

3a: *y,w,ey-FLP/3xCh-atg8a; UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B tubGAL80*

3b: *y,w,ey-FLP/3xCh-atg8a; UAS-Ras^{V12}, egr³/act>y⁺>GAL4, UAS-GFP, egr¹; Frt82B, scrib¹/Frt82B, tub-GAL80*

3c: *y,w,ey-FLP/3xCh-atg8a;UAS-Ras^{VI2}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib¹, UAS-bsk^{DN}/Frt82B, tub-GAL80*

3d: *y,w,ey-FLP/3xCh-atg8a;UAS-Ras^{VI2}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib¹, kay³/Frt82B, tub-GAL80*

3e: *y,w,ey-FLP.N2, UAS-dicer2/3xCh-atg8a,UAS-CD8::GFP; UAS-Ras^{VI2}, UAS-dlg^{RNAi}/Sp; CoinFLP-GAL4/+*

3f: *y,w,ey-FLP.N2, UAS-dicer2/3xCh-atg8a, UAS-CD8::GFP; UAS-Ras^{VI2}, UAS-dlg^{RNAi}/Sp; CoinFLP-GAL4/UAS-sd- IR^{TRIP.JF02514}*

3g: *y,w,ey-FLP/3xCh-atg8a; UAS-Ras^{VI2}, UAS-upd1/act>y⁺>GAL4, UAS-GFP; Frt82B/Frt82B, tub-GAL80*

3h: *y,w,ey-FLP/3xCh-atg8a; UAS-Ras^{VI2}, UAS- dome^{Δcyt2.1}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80*

3i: *y,w,ey-FLP/y,w;UAS-Ras^{VI2}/act>y⁺>GAL4, UAS-GFP; Frt82B/Frt82B, tub-GAL80*

3j: *y,w,ey-FLP/y,w;UAS-Ras^{VI2}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80*

3k: *y,w,ey-FLP/UAS-bsk^{DN};UAS-Ras^{VI2}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80*

3l: *y,w,ey-FLP/y,w; UAS-Ras^{VI2}, UAS- dome^{Δcyt2.1}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80*

Figure 4

4a: *y,w,ey-FLP.N2, UAS-dicer2/3xCh-atg8a, UAS-CD8::GFP; UAS-Ras^{VI2}, UAS-dlg^{RNAi}/Sp; CoinFLP-GAL4/+*

y,w,ey-FLP.N2, UAS-dicer2/3xCh-atg8a, UAS-CD8::GFP; UAS-Ras^{VI2}, UAS-dlg^{RNAi}/+; CoinFLP-GAL4/UAS-slij^{UY681}

4b: Donor: *y,w,ey-FLP/y,w; UAS-Ras^{VI2}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B tubGAL80*

host: *w;; Frt82B (ctrl)*

4c: Donor: *y,w,ey-FLP/y,w;UAS-Ras^{VI2}/act>y⁺>GAL4, UAS-GFP; Frt82B, atg13^{Δ81}, scrib²/Frt82B, tub-GAL80, atg13^{Δ81}*

host: *w;; Frt82B or w;; atg14^{Δ5.2}/atg14^{EY14568}*

Extended Data Figure 1

1a: *ubx-FLP1, tubP-GAL4, UAS-GFP, y,w/y,w; UAS-Ras^{V12}, pmCh-atg8a/+; Frt82B/Frt82B tubP-GAL80*

ubx-FLP1, tubP-GAL4, UAS-GFP, y,w/y,w; UAS-Ras^{V12}, pmCh-atg8a/+; Frt82B, scrib²/Frt82B tubP-GAL80

1b: *y,w,ey-FLP/y,w;UAS-Ras^{V12}, pmCh-atg8a/act>y⁺>GAL4, UAS-GFP; Frt82B/Frt82B, tub-GAL80*

y,w,ey-FLP/y,w;UAS-Ras^{V12}, pmCh-atg8a/ act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80

1c: *y,w,ey-FLP/y,w;UAS-Ras^{V12}, pmCh-atg8a/ act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80*

Extended Data Figure 2

2a: *y,w,ey-FLP/y,w;UAS-Ras^{V12}, pmCh-atg8a/ act>y⁺>GAL4, UAS-GFP; Frt82B/Frt82B, tub-GAL80*

y,w,ey-FLP/y,w;UAS-Ras^{V12}, pmCh-atg8a/ act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80

2b: *y,w,ey-FLP/w; UAS-Ras^{V12}, exp::*LacZ*/ act>y⁺>GAL4, UAS-GFP; Frt82B scrib¹/Frt82B, tub-GAL80*

Extended Data Figure 3

3b: *y,w,ey-FLP/y,w;+/act>y⁺>GAL4, UAS-GFP; Frt82B, atg14^{Δ5.2}/Frt82B, tub-GAL80*

3c: *y,w,ey-FLP/y,w;g-atg14/act>y⁺>GAL4, UAS-GFP; Frt82B, atg14^{Δ5.2}/Frt82B, tub-GAL80*

3d: *y,w,ey-FLP/w;+/act>y⁺>GAL4, UAS-GFP; Frt82B/Frt82B, tub-GAL80*

3e: *y,w,ey-FLP/y,w;+ act>y⁺>GAL4, UAS-GFP; Frt82B, atg13^{Δ81}/Frt82B, tub-GAL80*

3f: *y,w,ey-FLP/y,w;+/act>y⁺>GAL4, UAS-GFP; Frt82B, atg14^{Δ5.2}/Frt82B, tub-GAL80*

Extended Data Figure 4

4b: *y,w,ey-FLP/w;+/act>y⁺>GAL4, UAS-GFP; Frt82B/Frt82B, tub-GAL80, atg13^{Δ81}*

4c: *y,w,ey-FLP/w;+/act>y⁺>GAL4, UAS-GFP; Frt82B/Frt82B, tub-GAL80, atg14^{Δ5.2}*

Extended Data Figure 5

5b,d: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP;Frt82B, atg13^{Δ81}, scrib²/Frt82B, tub-GAL80, atg13^{Δ81}*

5c,e: *y,w,ey-FLP/y,w; g-atg13, UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, atg13^{Δ81}, scrib²/Frt82B, tub-GAL80, atg13^{Δ81}*

5g: *ey3.5-atg13-GFP/Y*

5h: *y,w,ey-FLP/ey3.5-atg13;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, atg13^{Δ81}, scrib²/Frt82B, tub-GAL80, atg13^{Δ81}*

Extended Data Figure 6

6a,g,l,q: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B/Frt82B, tub-GAL80*

6b,h,m,r: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80*

6c,i,n,s: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, atg13^{Δ81}, scrib²/Frt82B, tub-GAL80*

6d,j,o,t: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80, atg13^{Δ81}*

6e,k,p,u: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, atg13^{Δ81}, scrib²/Frt82B, tub-GAL80, atg13^{Δ81}*

Extended Data Figure 7

7a: *y,w,ey-FLP/y,w; UAS-Ras^{V12}, pmCh-atg8a/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B tubGAL80*

y,w,ey-FLP/UAS-bsk^{DN}; UAS-Ras^{V12}, pmCh-atg8a/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B tubGAL80

7b: *y,w,ey-FLP/3xCh-atg8a;UAS-ets21c^{long-RNAi},UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B scrib¹, UAS-fos^{39/19RNAi}/Frt82B, tub-GAL80*

7c: *y,w,ey-FLP.N2, UAS-dicer2/3xCh-atg8a, UAS-CD8::*GFP*; UAS-Ras^{V12}, UAS-dlg^{RNAi}/+; CoinFLP-GAL4/Frt82B scrib¹,UAS-bsk^{DN}*

7d: *y,w,ey-FLP/3xCh-atg8a;UAS-yki^{S168A}:GFP/Act>y⁺>Gal4, UAS-GFP; Frt82B/Frt82B tubGAL80*

7e: *y,w,ey-FLP.N2, UAS-dicer2/3xCh-atg8a, UAS-CD8::*GFP*; UAS-Ras^{V12}, UAS-dlg^{RNAi}/+; CoinFLP-GAL4/UAS-yki-IR^{TRIP.HMS00041}*

7f: *y,w,ey-FLP.N2, UAS-dicer2/3xCh-atg8a, UAS-CD8::*GFP*, UAS-Ras^{V12}, UAS-dlg^{RNAi}/UAS-dpP110^{D945A}; CoinFLP-GAL4/+*

7g: *y,w,ey-FLP/UAS-s.Impl2; UAS-Ras^{V12}, pmCh-atg8a/act>y⁺>GAL4, UAS-GFP; Frt82B/Frt82B tubGAL80*

7h: *y,w,ey-FLP.N2, UAS-dicer2/3xCh-atg8a, UAS-CD8::*GFP*; UAS-Ras^{V12}, UAS-dlg^{RNAi}/+; CoinFLP-GAL4/UAS-Impl2^{RNAi}*

7i: *y,w,ey-FLP/ upd3^{p[XP]d0495}; UAS-Ras^{V12}, pmCh-atg8a/act>y⁺>GAL4, UAS-GFP; Frt82B/Frt82B tubGAL80*

7j: *y,w,ey-FLP/y,w;UAS-Ras^{V12}, pmCh-atg8a/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80, stat92E^{85C9}*

Extended Data Figure 8

8a,b: *y,w,ey-FLP/y,w; UAS-Ras^{V12}, pmCh-atg8a/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80*

8c: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B/Frt82B, tub-GAL80*

y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80

8d,e: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80*

- 8f:** *ey-FLP;act>y⁺>GAL4, UAS-GFP; Frt82B, tub-GAL80 (wt)*
y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80
- 8g:** *ap-GAL4, UAS-GFP/+; pmCh-atg8a/+*
- 8h:** *ap-GAL4, UAS-GFP/+; pmCh-atg8a/UAS-ND75^{RNAi}*
- 8i:** *y,w,ey-FLP/y,w; UAS-yki^{S168A}:GFP/act>y⁺>GAL4, UAS-GFP; Frt82B/Frt82B tubGAL80*
- 8j:** *y,w,ey-FLP/y,w; UAS-yki^{S168A}:GFP/act>y⁺>GAL4, UAS-GFP; Frt82B/Frt82B tubGAL80*
y,w,ey-FLP/y,w; UAS-yki^{S168A}:GFP/act>y⁺>GAL4, UAS-GFP; Frt82B/Frt82B tubGAL80, atg13^{A81}
- 8k:** *y,w,ey-FLP1/w;+/G454, act>y⁺>GAL4, UAS-mmRFP; Frt82B/Frt82B, tub-GAL80*
- 8l:** *y,w,ey-FLP1/y,w;UAS-Ras^{V12}/G454, act>y⁺>GAL4, UAS-mmRFP; Frt82B, scrib²/Frt82B, tub-GAL80*

Extended Data Figure 9

9a: *y,w,ey-FLP.N2, UAS-dicer2/3xCh-atg8a, UAS-CD8::GFP; UAS-Ras^{V12}, UAS-dlg^{RNAi}/Sp; CoinFLP-Gal4/+*

y,w,ey-FLP.N2, UAS-dicer2/3xCh-atg8a, UAS-CD8::GFP; UAS-Ras^{V12}, UAS-dlg^{RNAi}/+; CoinFLP-Gal4/UAS-slij^{UY681}

9b: Donor: *y,w,ey-FLP/y,w; UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B tubGAL80*

host: *w;; Frt82B (ctrl)*

9c: Donor: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80*
or w1118

Host: *pmCh-atg8a/CyO*

9d: Donor: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80*

Host: *w;; Frt82 (ctrl)*

9e: Donor: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, scrib²/Frt82B, tub-GAL80*

Host: *w*/+;; atg14^{A5.2}/atg14^{EY14568} or w*/+;g-atg14/+; atg14^{A5.2}/atg14^{EY14568}*

9f: Donor: *y,w,ey-FLP/y,w;UAS-Ras^{V12}/act>y⁺>GAL4, UAS-GFP; Frt82B, atg13^{A81}, scrib²/Frt82B, tub-GAL80, atg13^{A81}*

Host: *w;; Frt82 (ctrl) or atg8^{d4}*