

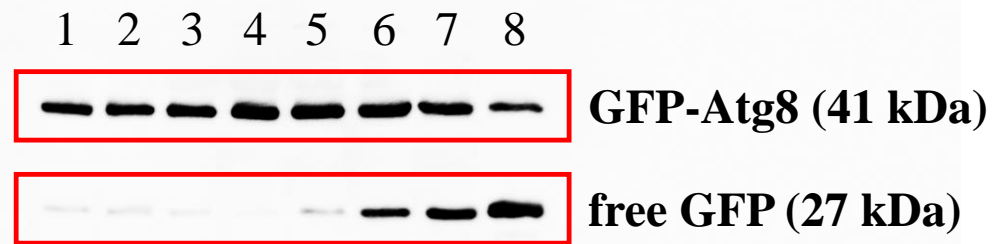
S1_Raw_Images. Raw blot and electrophoresis gel images used in this manuscript.

S1_Raw_Figs1-4: Western blot images were visualized using ImageQuant LAS (GE Healthcare) with the following setting conditions: Chemiluminescence Method, Exposure Time defined as Auto and Standard Sensitivity/Resolution.

S1_Raw_Fig5: Electrophoresis gel images was captured using ImageQuant LAS (GE Healthcare) with the following setting conditions: EtBr UV (Trans-illumination) Fluorescence Method, Exposure Time defined as Auto and Standard Sensitivity/Resolution.

S1_Raw_Figs6-7: Southern blot images were visualized using ImageQuant LAS (GE Healthcare) with the following setting conditions: Chemiluminescence Method, Exposure Time defined as Auto and Standard Sensitivity/Resolution.

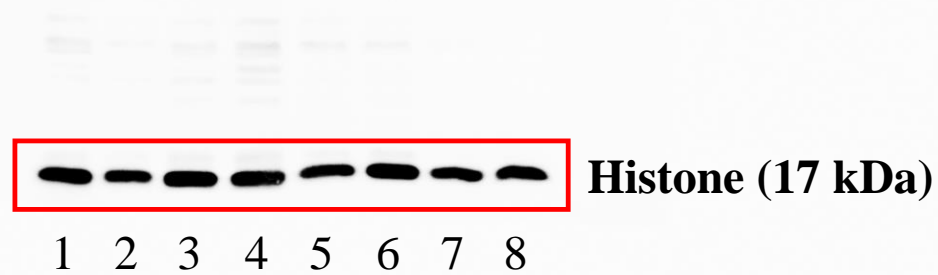
All captured blot and gel images were exported to TIF format and cropped to be used in the main body and in the supplementary information of this manuscript.



KN99 α (anti-GFP):

- 1: 0h induction in YPD
- 2: 1h induction in YPD
- 3: 2h induction in YPD
- 4: 4h induction in YPD
- 5: 0h induction in SD/-N/-AA
- 6: 1h induction in SD/-N/-AA
- 7: 2h induction in SD/-N/-AA
- 8: 4h induction in SD/-N/-AA

S1_Raw_Fig1. Raw Western blot image of GFP-Atg8 expressions in KN99 α (correspond to Figure 4A top pannel).



KN99 α (anti-histone):

1: 0h induction in YPD

2: 1h induction in YPD

3: 2h induction in YPD

4: 4h induction in YPD

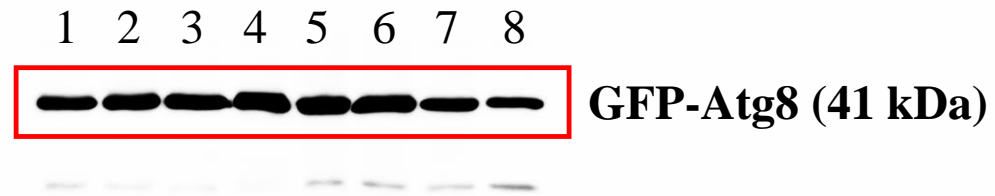
5: 0h induction in SD/-N/-AA

6: 1h induction in SD/-N/-AA

7: 2h induction in SD/-N/-AA

8: 4h induction in SD/-N/-AA

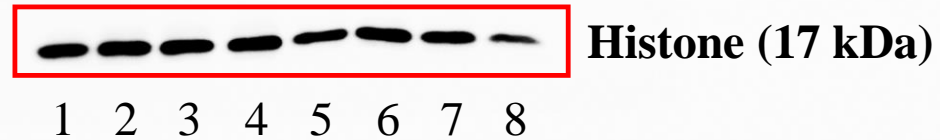
S1_Raw_Fig2. Raw Western blot image of histone expressions in KN99 α (correspond to Figure 4A bottom panel). The S1_Raw_Fig1 membrane was stripped to remove anti-GFP antibody and then incubated with primary rabbit anti-histone.



***atg4* (anti-GFP):**

- 1: 0h induction in YPD
- 2: 1h induction in YPD
- 3: 2h induction in YPD
- 4: 4h induction in YPD
- 5: 0h induction in SD/-N/-AA
- 6: 1h induction in SD/-N/-AA
- 7: 2h induction in SD/-N/-AA
- 8: 4h induction in SD/-N/-AA

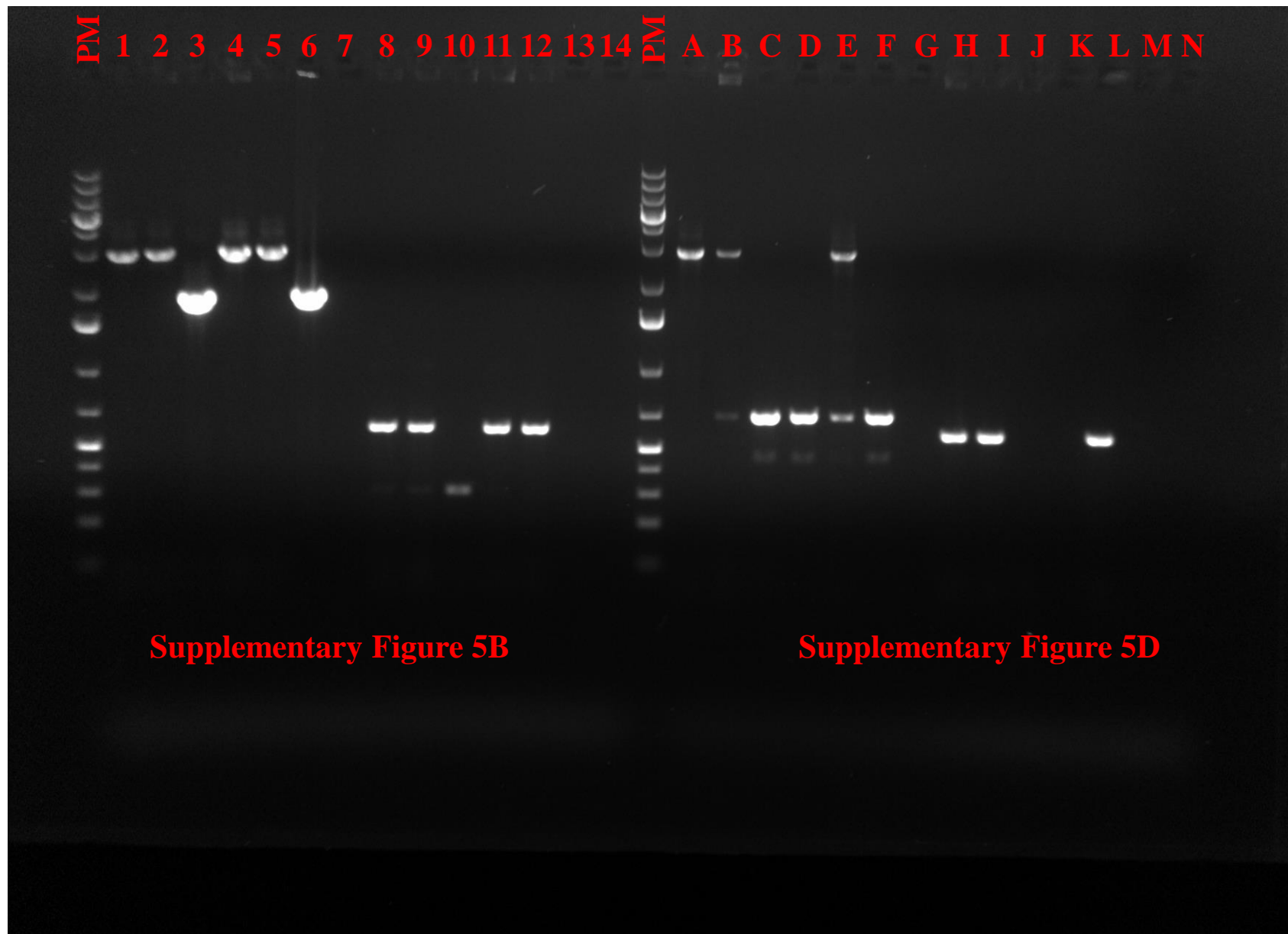
S1_Raw_Fig3. Raw Western blot image of GFP-Atg8 expressions in *atg4* mutant (correspond to Figure 4B top pannel).



***atg4* (anti-histone):**

- 1: 0h induction in YPD
- 2: 1h induction in YPD
- 3: 2h induction in YPD
- 4: 4h induction in YPD
- 5: 0h induction in SD/-N/-AA
- 6: 1h induction in SD/-N/-AA
- 7: 2h induction in SD/-N/-AA
- 8: 4h induction in SD/-N/-AA

S1_Raw_Fig4. Raw Western blot image of histone expressions in *atg4* mutant (correspond to Figure 4B bottom pannel). The S1_Raw_Fig3 membrane was stripped to remove anti-GFP antibody and then incubated with primary rabbit anti-histone.



Supplementary Figure 5B

1-7: Confirmatory PCR for *ATG4* deletion diagnosis using the primers: Atg4ScF and Atg4ScR.

8-14: Confirmatory PCR for *ATG4* deletion diagnosis using the primers: Atg4ScF and KanMXR.

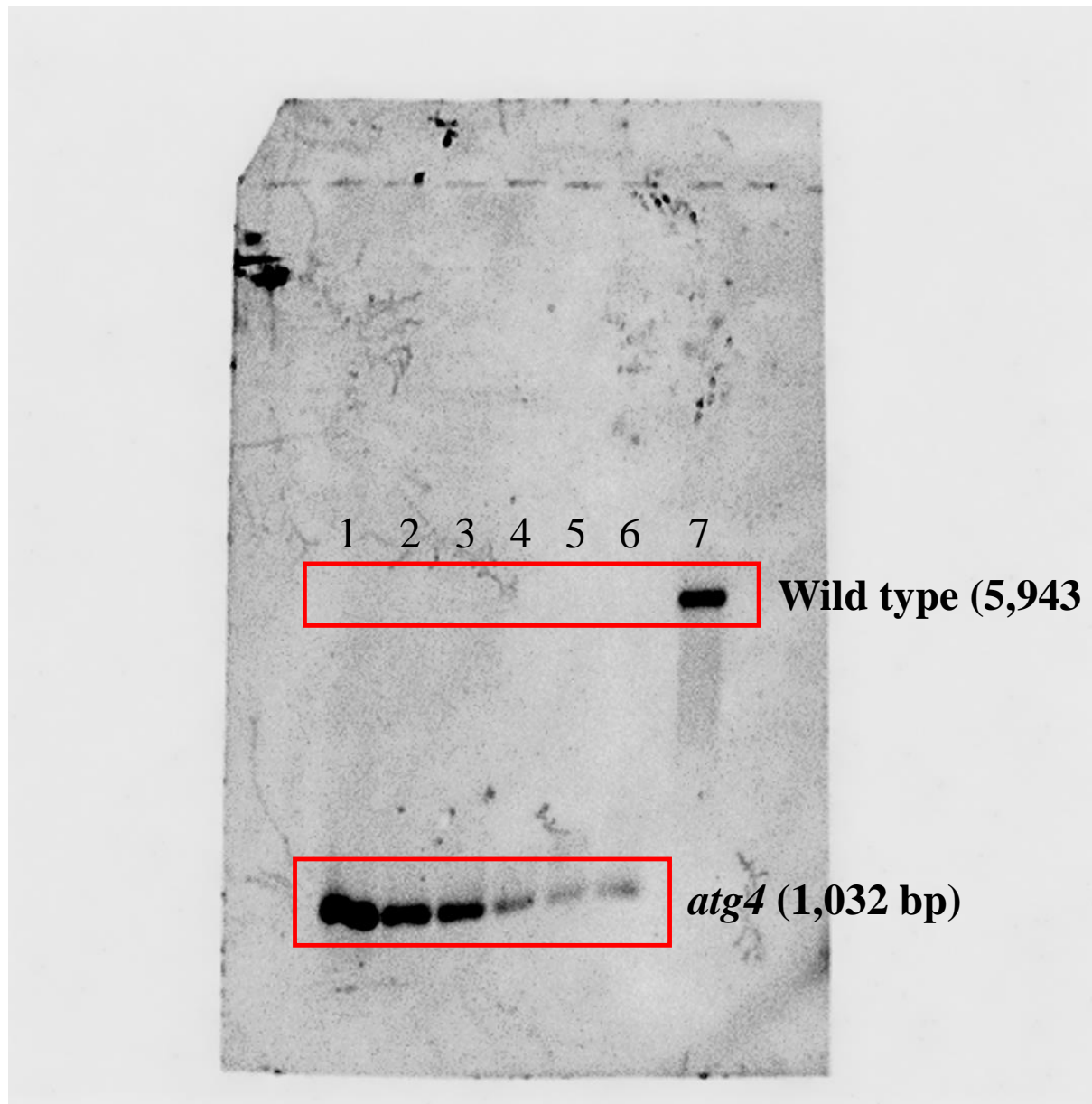
Supplementary Figure 5D

A-G: Confirmatory PCR for *ATG8* deletion diagnosis using the primers: Atg8ScF and Atg8ScR.

H-N: Confirmatory PCR for *ATG4* deletion diagnosis using the primers: Atg8ScF and KanMXR.

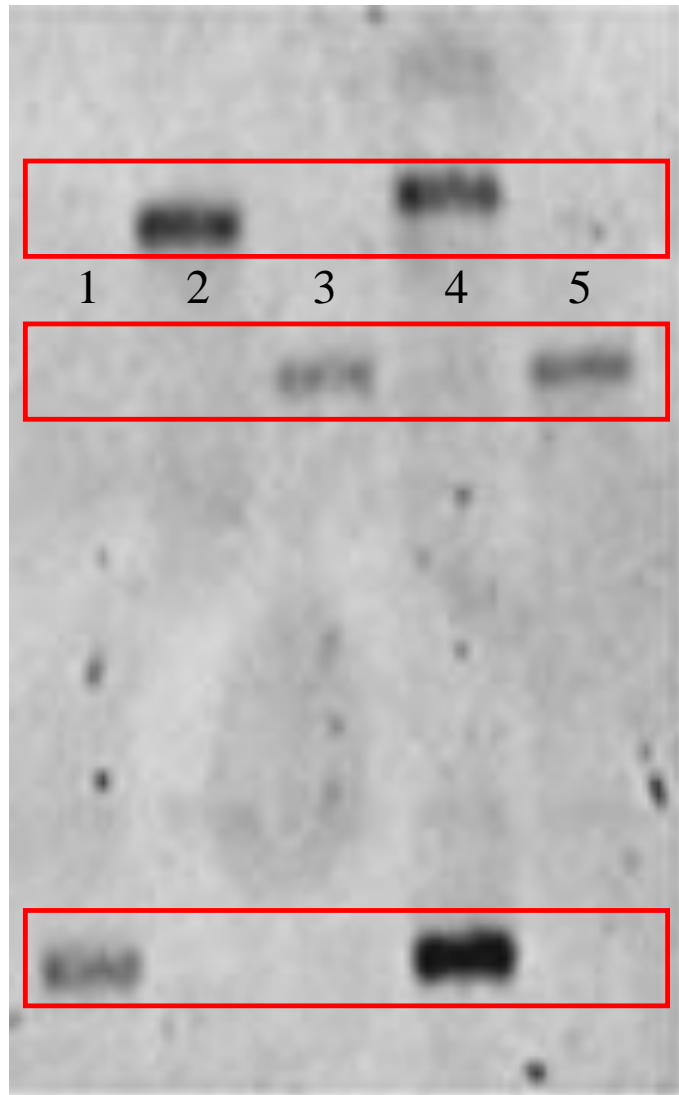
PM: 1 Kb Plus DNA Ladder (Thermo Fischer Scientific)

S1_Raw_Fig5. Raw electrophoresis gel image of the *ATG4* (YNL223W) and *ATG8* (YBL078C) genes deletion in *S. cerevisiae* (correspond to Supplementary Figures 5B and 5D).



- 1: colony 1 growing in YPD+Hyg
- 2: colony 2 growing in YPD+Hyg
- 3: colony 3 growing in YPD+Hyg
- 4: colony 4 growing in YPD+Hyg
- 5: colony 5 growing in YPD+Hyg
- 6: colony 6 growing in YPD+Hyg
- 7: KN99 α (WT)

S1_Raw_Fig6. Raw Southern blot image of the *ATG4* (CNAG_02662) gene deletion in *C. neoformans* (correspond to Supplementary Figures 6B).



Non-homologous integration

***atg8* (6,150 bp)**

Wild type (1,996 bp)

1: KN99 α (WT)

2: colony 1 growing in YPD+Hyg

3: colony 2 growing in YPD+Hyg

4: colony 3 growing in YPD+Hyg

5: colony 4 growing in YPD+Hyg

S1_Raw_Fig7. Southern blot image of the *ATG8* (CNAG_00816) gene deletion in *C. neoformans* (correspond to Supplementary Figures 6D). This is not the raw figure, but is the crop made soon after the capture, I retrieved it from an email the student sent. The raw captured image was lost when the computer HD crashed.