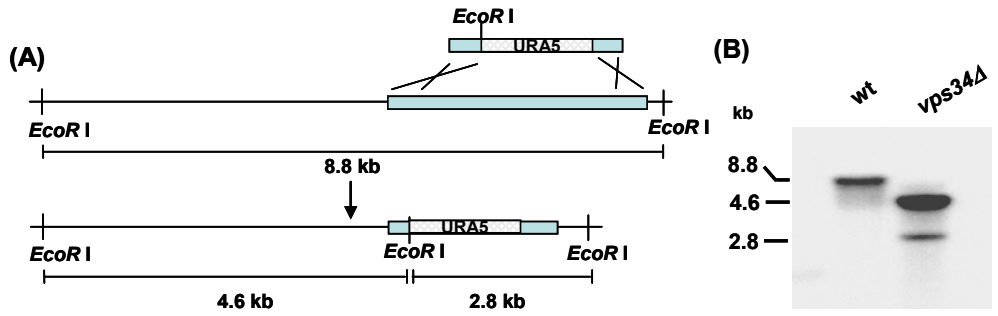

Figure S1. Scheme for knockout of *VPS34* gene and Southern blot analysis. A) Double cross-over was effected by Biolistic transformation using *URA5* transformation marker, to produce a 2.6-kb deletion of *VPS34*. B) DNA from indicated strains was digested with *Eco R* I and hybridized with a full-length fragment of the *VPS34* gene.

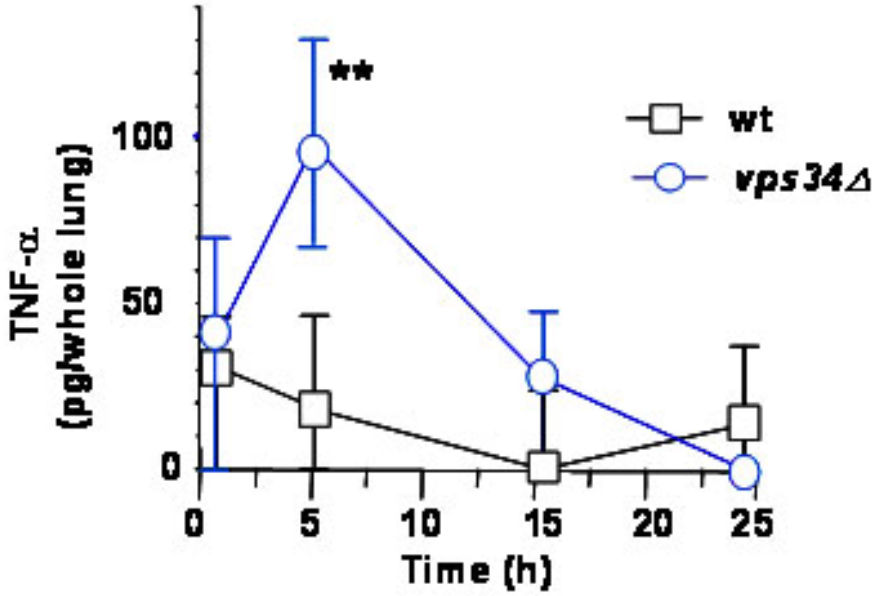

Figure S2. TNF-alpha production in mouse lung after inoculation of wt or *vps34Δ* mutant cells intranasally. Indicated cells were inoculated into CBA/J mice intranasally, then sacrificed at 1 , 5, 15 and 25 h, lungs harvested and subjected to TNF-alpha assay of lung homogenates according to methods.

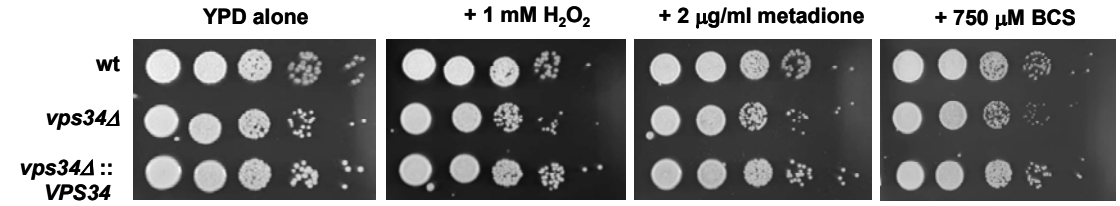

Figure S3: Growth phenotypes of *VPS34* mutant strains. Indicated strains were grown to mid log phase, resuspended to an A_{600} of 1.0 and 5 μl suspensions of serial 1:10 dilutions were plated on YPD agar containing the indicated additions and incubated at 37°C for 2 days.

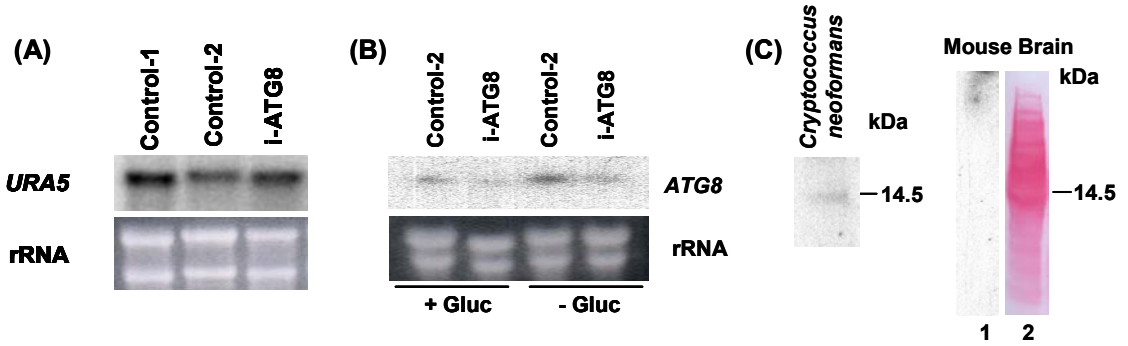

Figure S4. Northern and western blot analysis of *URA5* and *ATG8* expression from *Cryptococcus* and mice. RNA from Indicated strains grown in Asparagine salts with 2% glucose and harvested (panel A, and as indicated in panel B) or incubated in asparagine salts without glucose (as indicated in panel B) and hybridized with a fragment of the *URA5* or a 500 bp fragment of the *ATG8* gene from *C. neoformans.* C) wt *C. neoformans* (5 μg-left panel) or protein homogenates from Swiss Albino mouse brain (20 μg-right panel) were subjected to a 17% SDS-PAGE, followed by western blot using 1:500 anti-Atg8 antibody and developed using a horseradish peroxidase-anti rabbit antibody as described in Methods. Right panel: lane 1 shows western blot, lane 2 Ponceau stain of gel used to perform western.

Supplemental Movie. Starvation of wt, but not *vps34Δ* cells results in production of motile autophagic particles. Indicated strains (Movie 1: wt; Movie 2: *vps34Δ*) were grown to mid-log phase in YNB with 2% glucose and incubated in YNB without amino acids and ammonium sulfate for 4 hrs in the presence of 5 mM phenylmethyl sulfonylfluoride and 10 μg/ml nocodazole and examined by DIC. Exposure time 0.02sec, capture rate 1 /0.02 sec