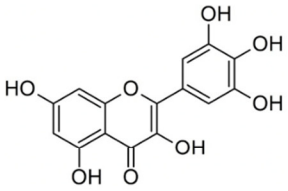
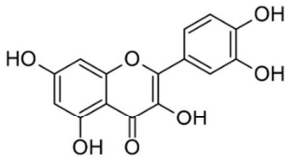
Figure S1

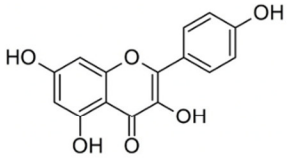
Structure of the tested compounds



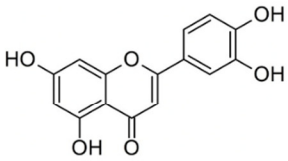
Myricetin



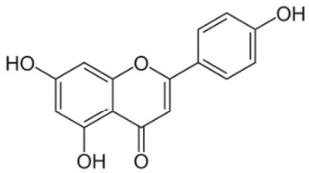
Quercetin



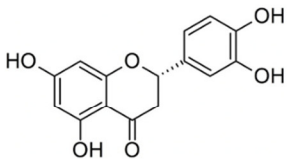
Kaempferol



Luteolin



Apigenin



Eriodictyol

Figure S2
High-performance liquid chromatography (HPLC) chromatograms of the isolated compounds: 1 – kaempferol; 2 – quercetin; 3 – eriodictyol

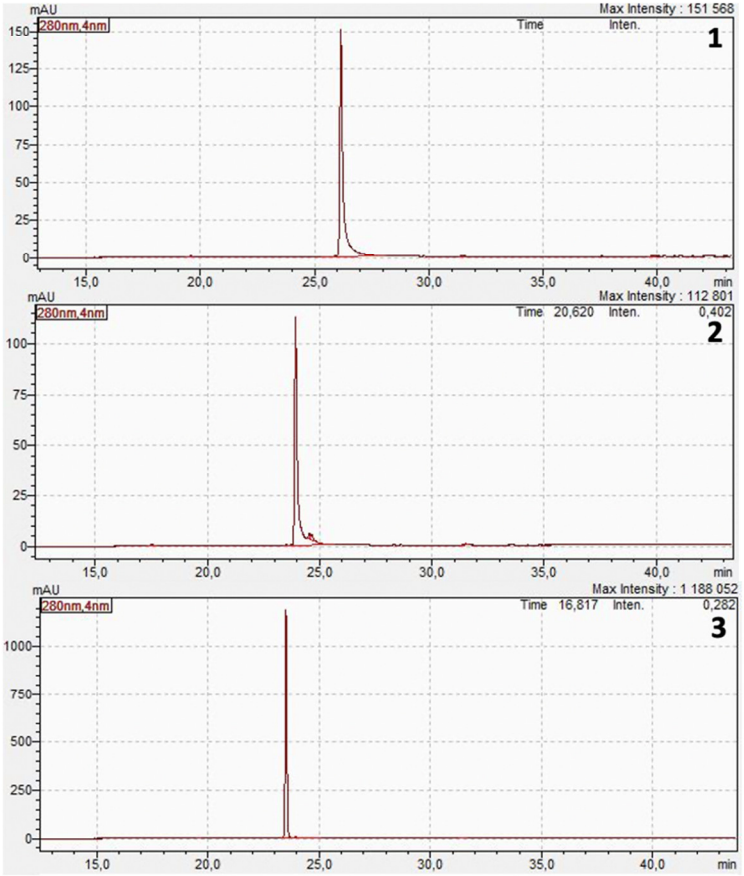


Figure S2. The purity of isolated compounds was 97%, 95% and 99% for kaempferol, quercetin and eriodictyol respectively. The structure of the isolated compounds was elucidated by NMR-spectroscopy. The purity of the compounds was estimated by HPLC using a Prominence LC-20 with a SPD-M20A diode-array detector (Shimadzu corp., Japan) with a Supelcosil LC18 column (250 4.6, 5 lm). The flow rate was 1 mL/min. Analysis temperature - 40 °C. Eluent: water (component A), acetonitrile (component B) with a TFA content of 0.1% (from H_2O : CH_3CN 5 : 95 to H_2O: CH_3CN 0 : 100, by volume). HPLC grade solvents used for HPLC analysis was J.T. Baker HPLC gradient grade.

Figure S3
Mass-chromatogram of sample 3
1 – cGMP, 2 – internal standard, 3 – cAMP.

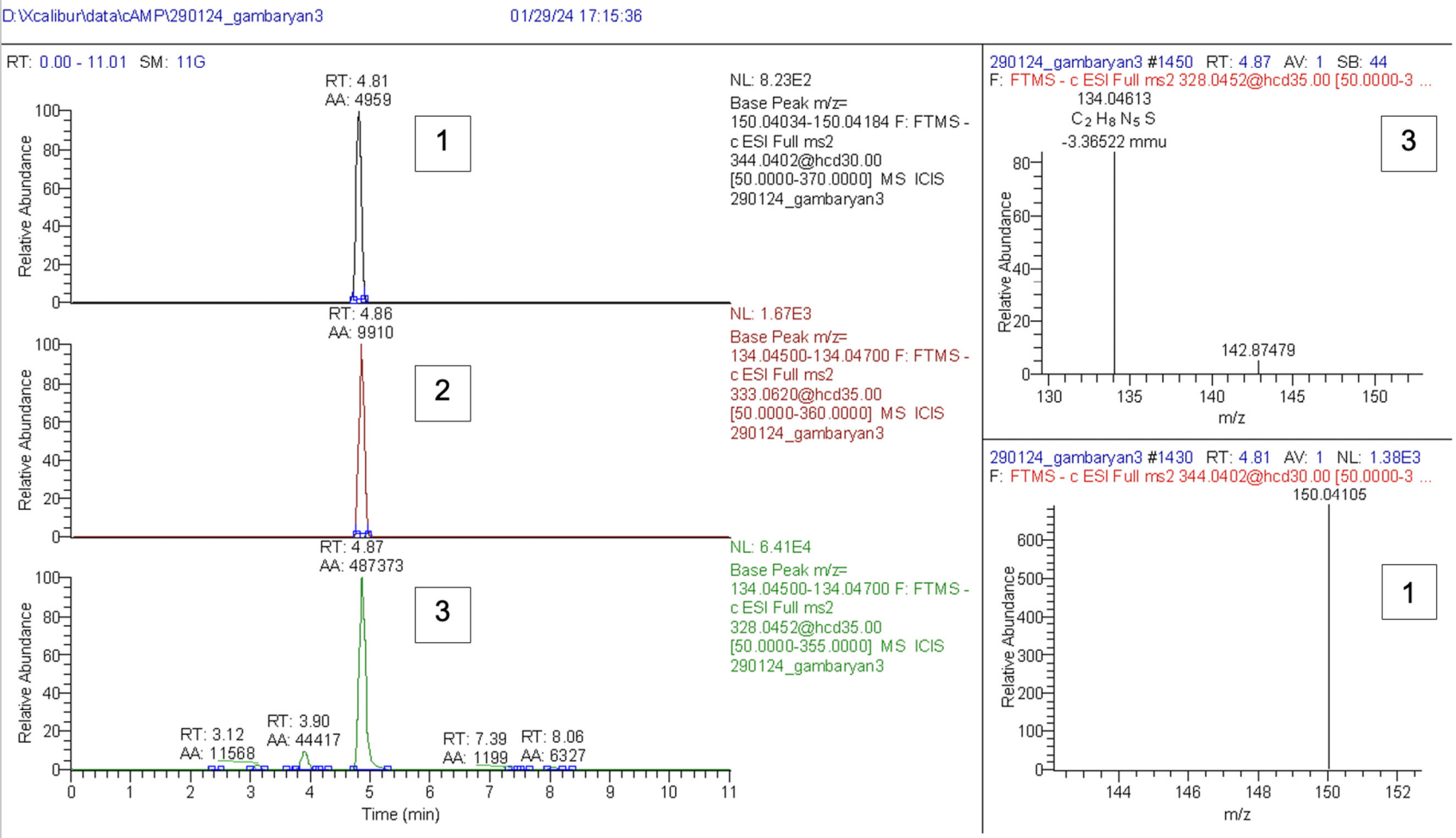


Table S1

Quantification of the cyclic nucleotides

Retention time (tR), multiple reaction monitoring (MRM) employed for identification and quantification of the compounds and internal standard (IS).

Compound	t_R (min)	MRM1
cAMP	4.87	328.0452 => 134.0457
cGMP	4.81	344.0402 => 150.04109
cAMP-13C5 (IS)	4.87	333.0620 => 134.0457

Figure S4
Full blots of figure 6a

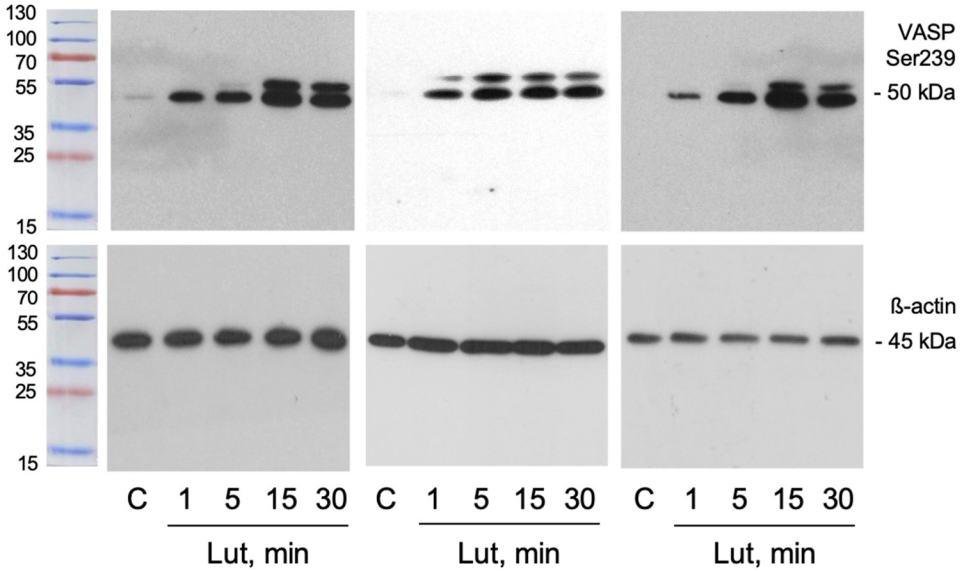


Figure S5
Full blots of figure 6b

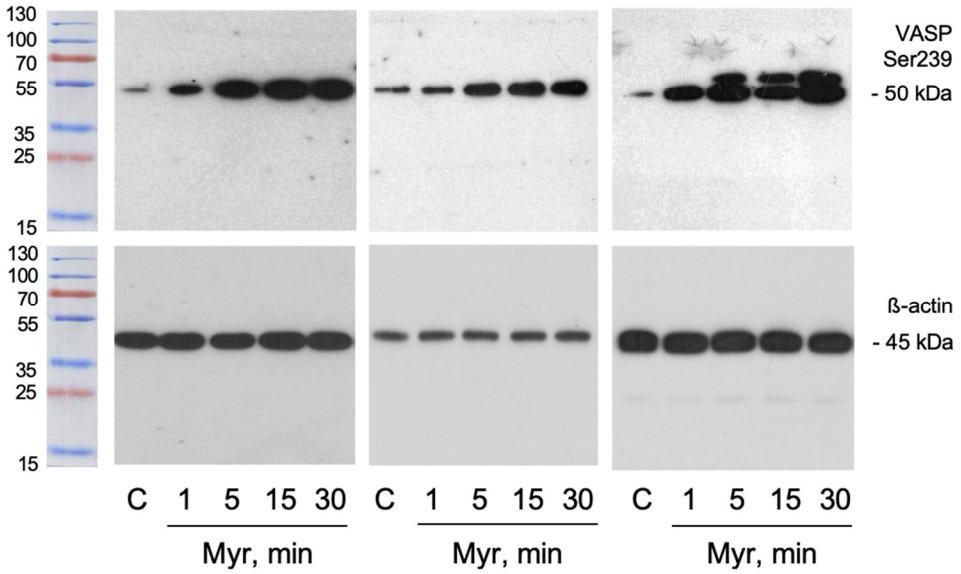


Figure S6
Full blots of figure 6c

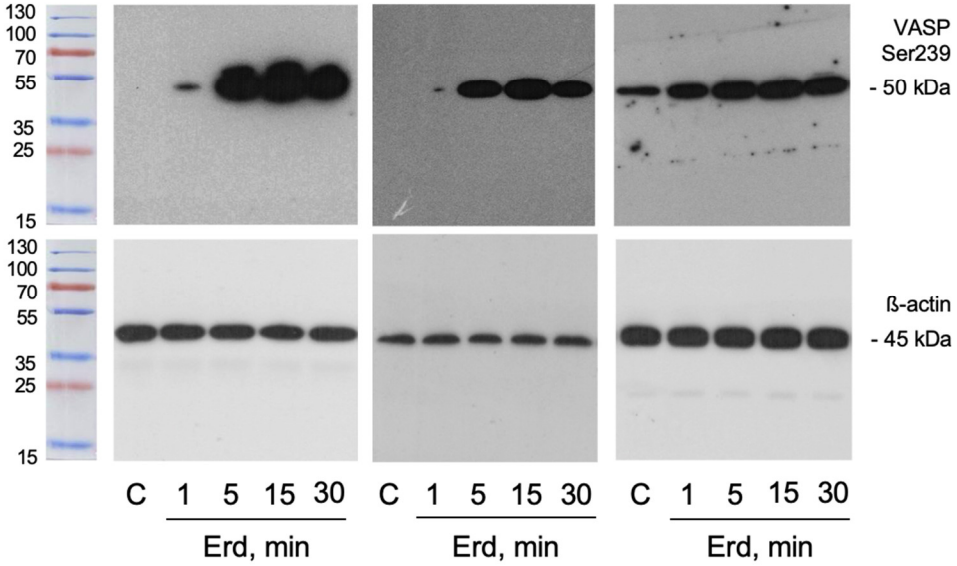


Figure S7
Full blots of figure 6d

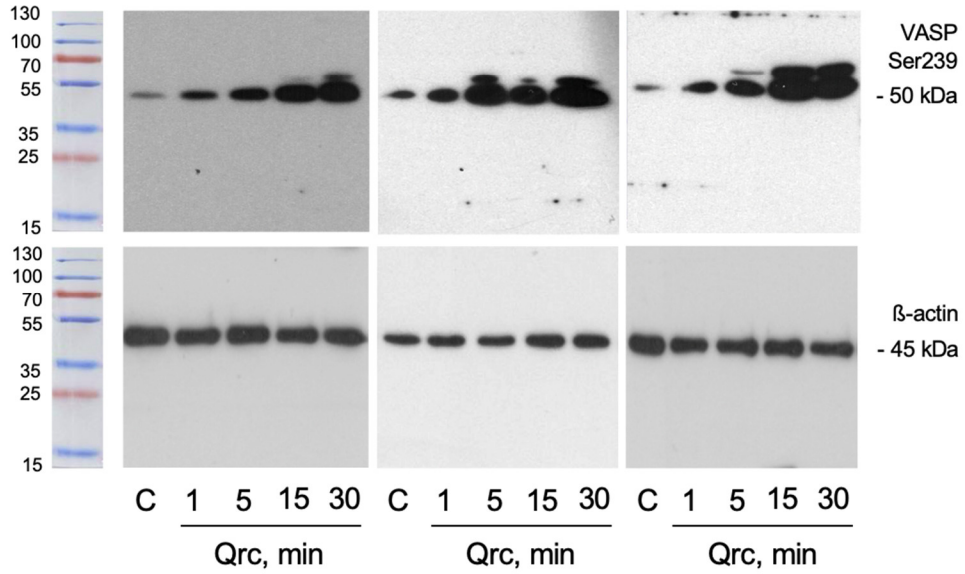


Figure S8
Full blots of figure 6e

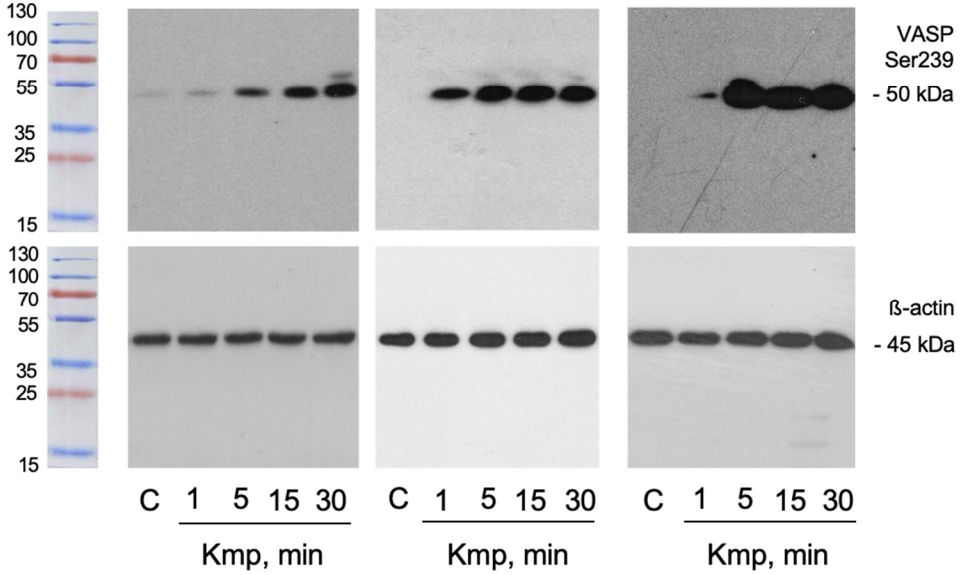


Figure S9
Full blots of figure 6f

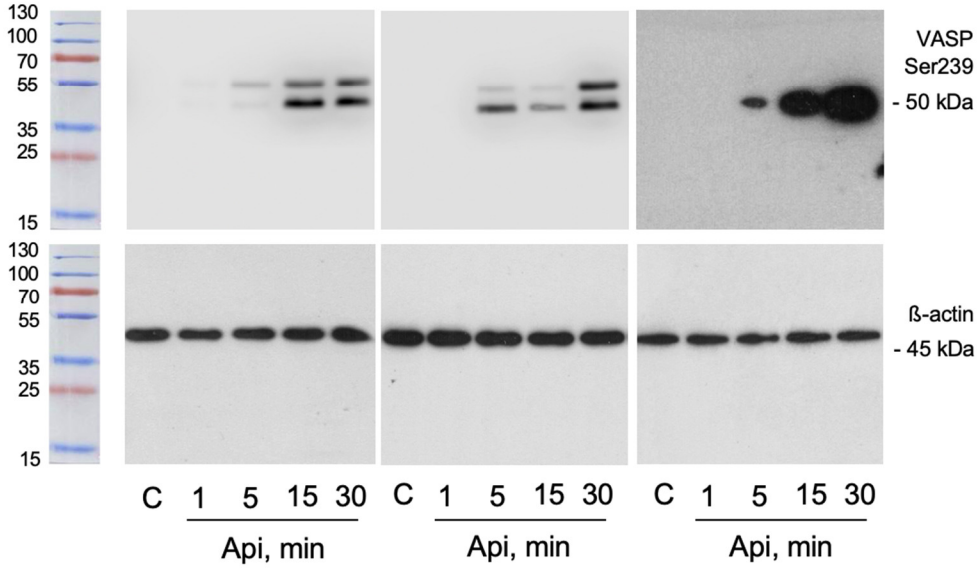


Figure S10
Full blots of figure 7a

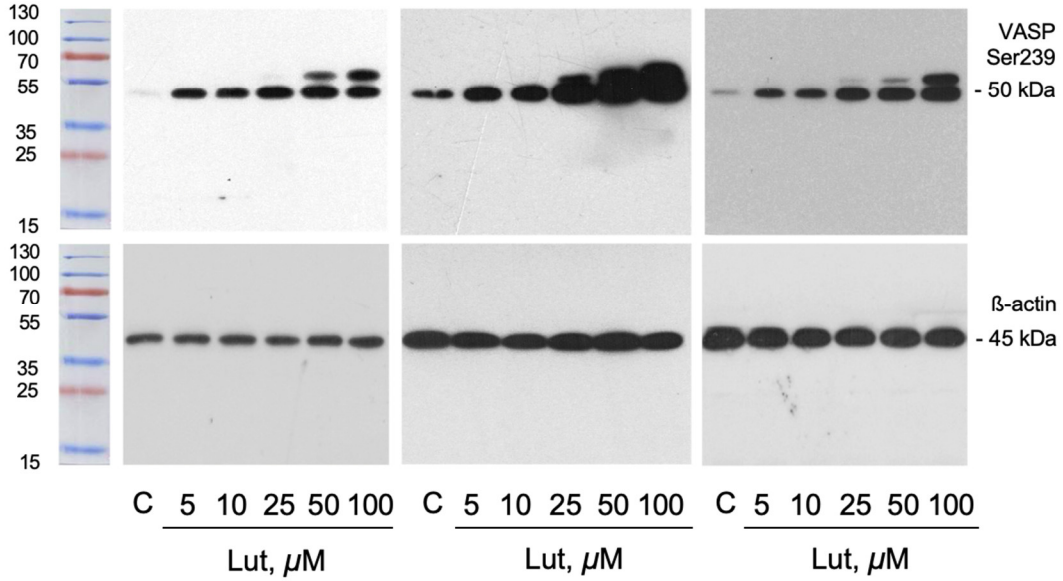


Figure S11
Full blots of figure 7b

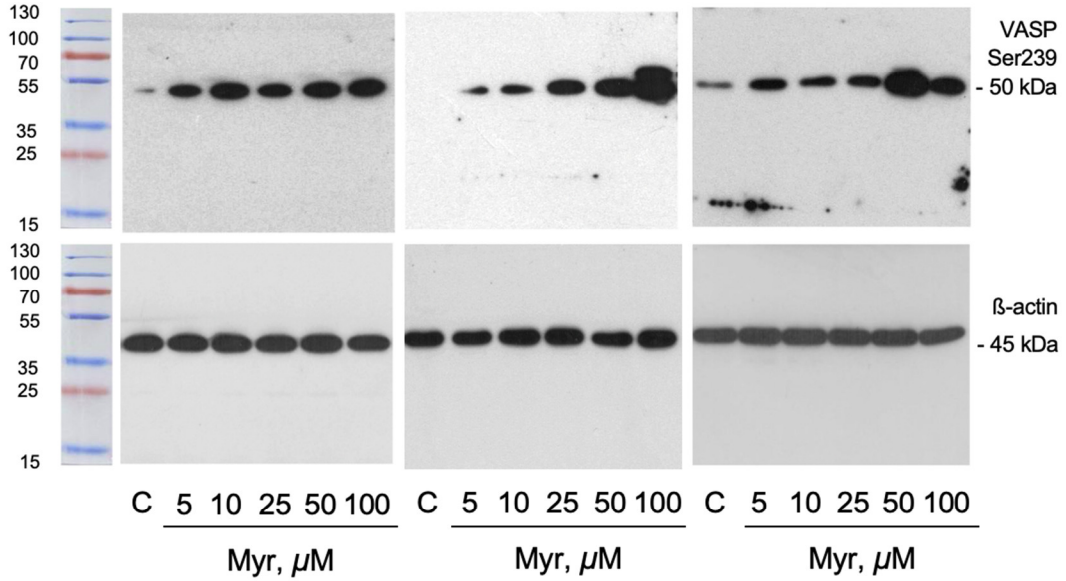


Figure S12
Full blots of figure 7c

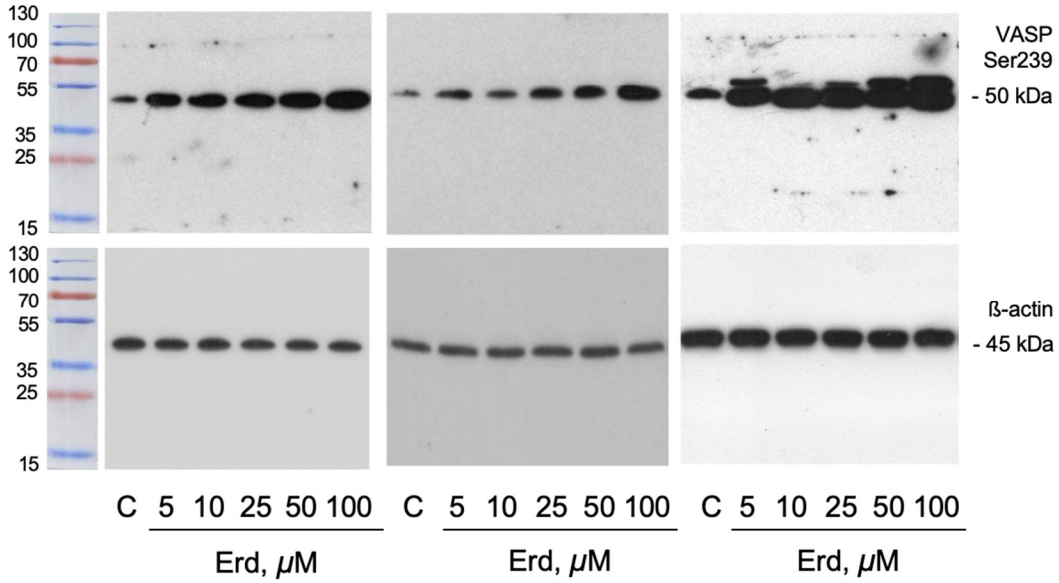


Figure S13
Full blots of figure 7d

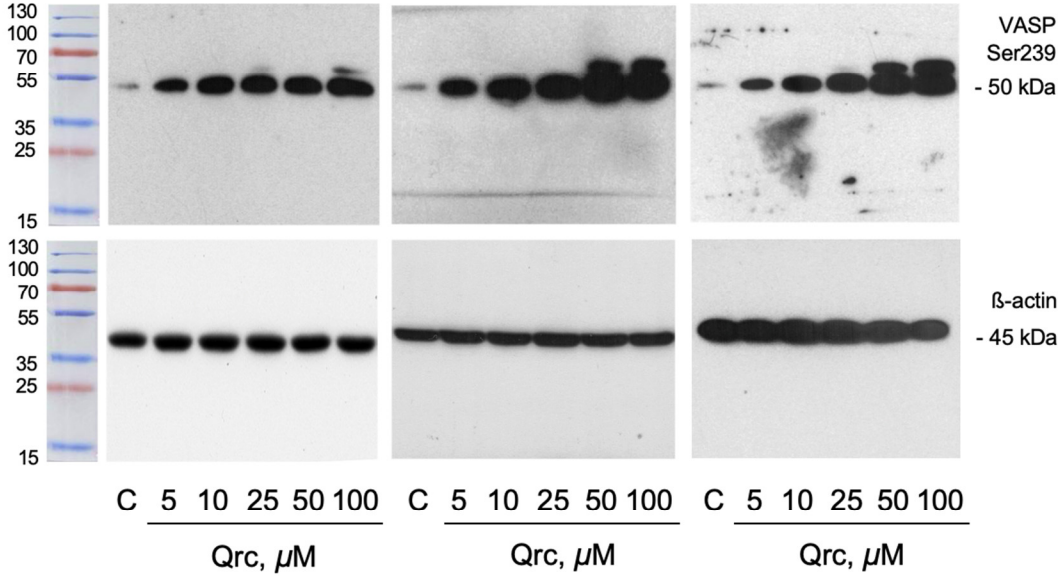


Figure S14
Full blots of figure 7e

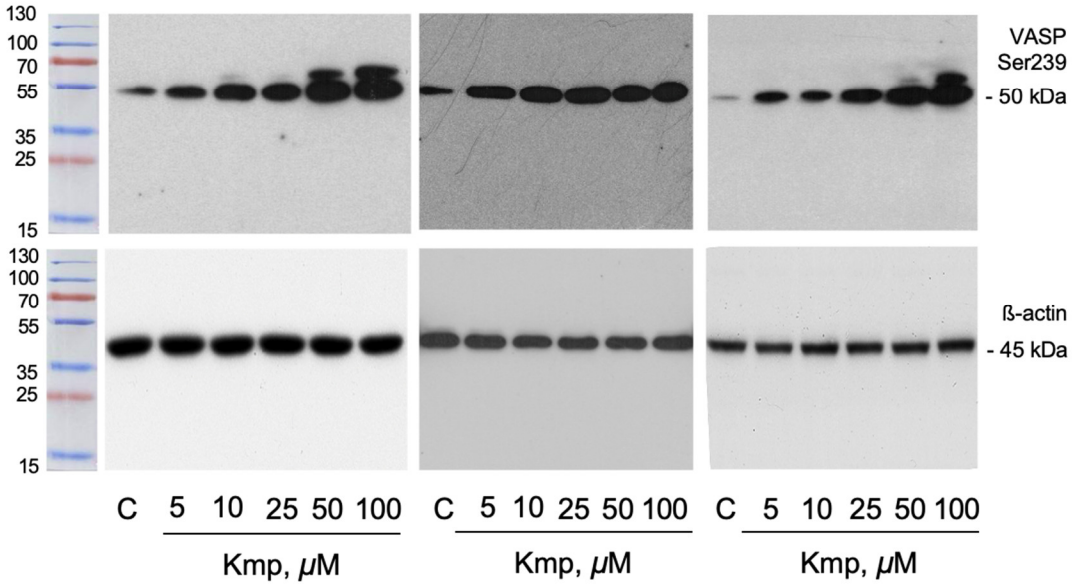


Figure S15
Full blots of figure 7f

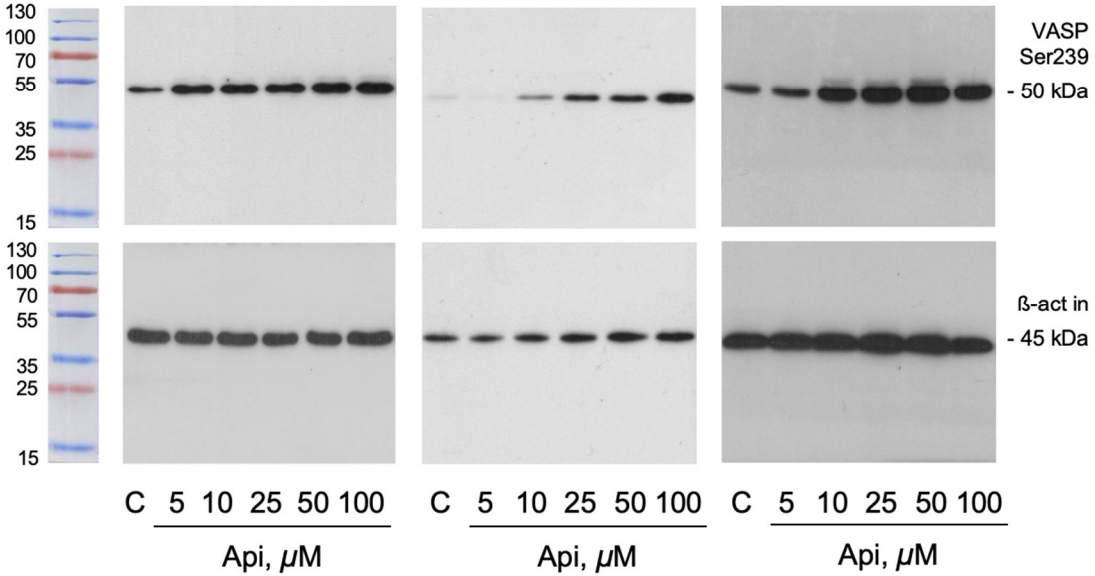


Figure S16: Full blots of figures 8 a-b

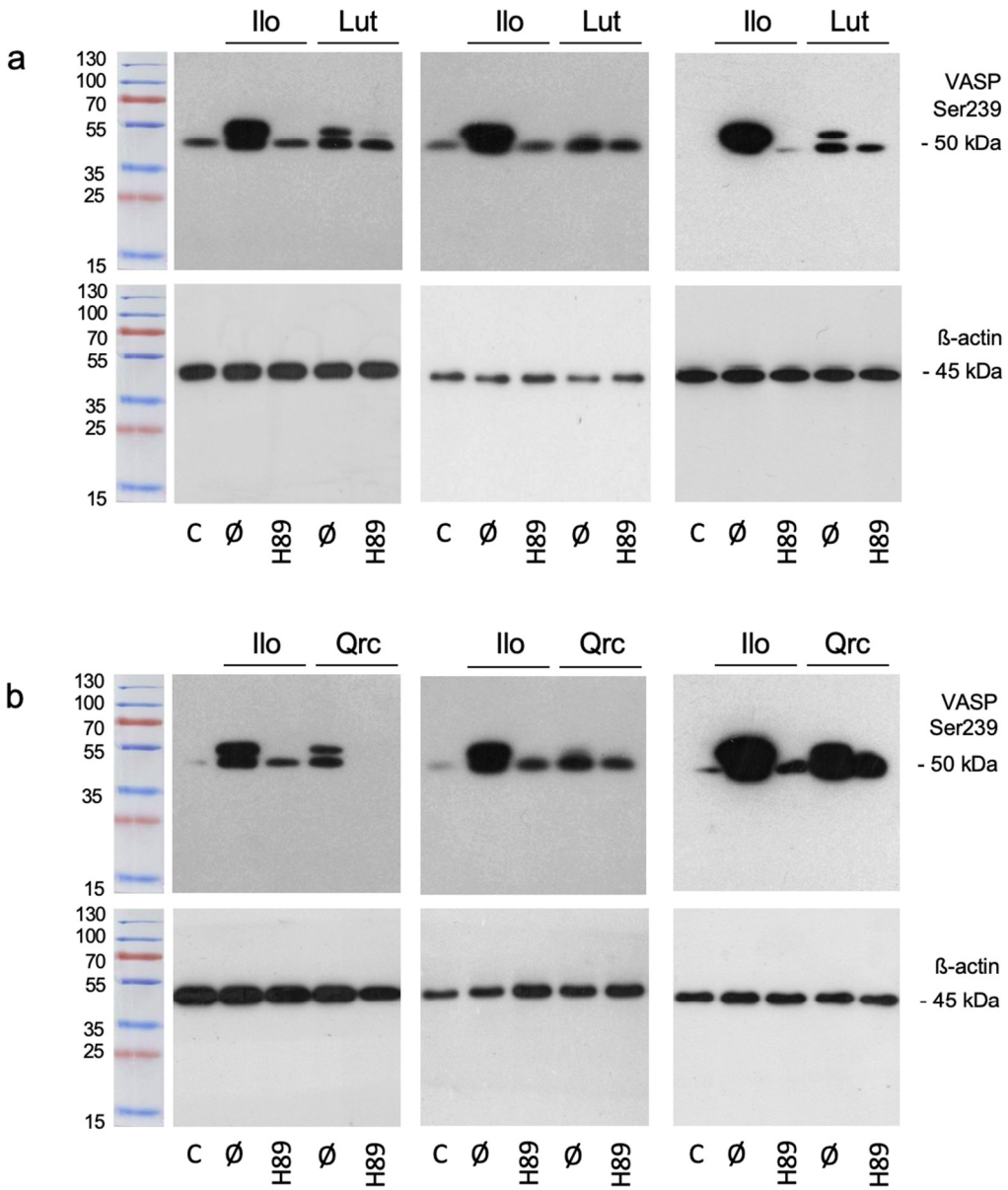
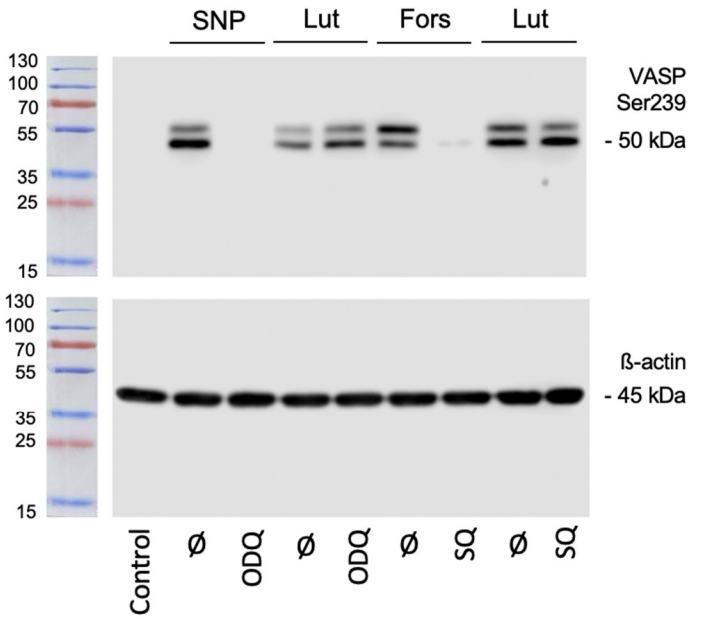
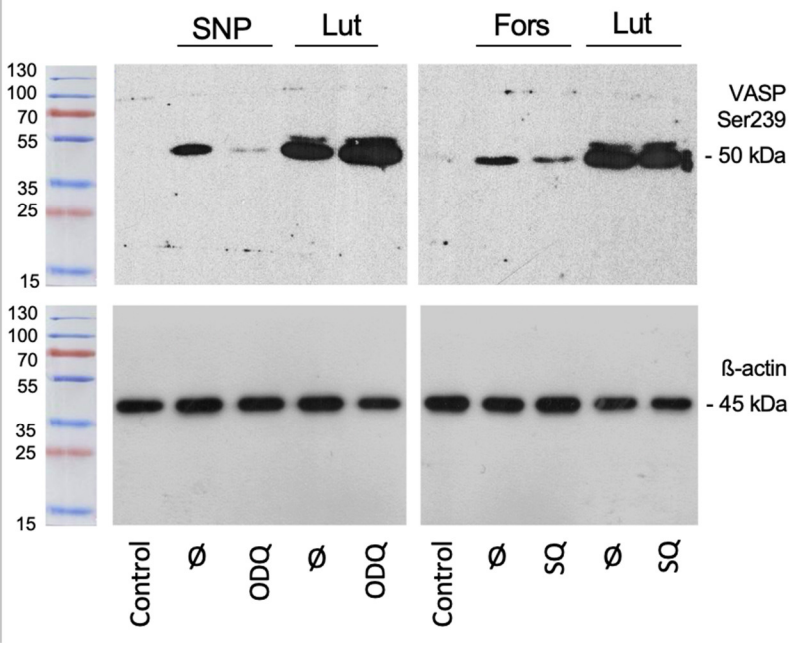


Figure S17
Full blots of figure 9a





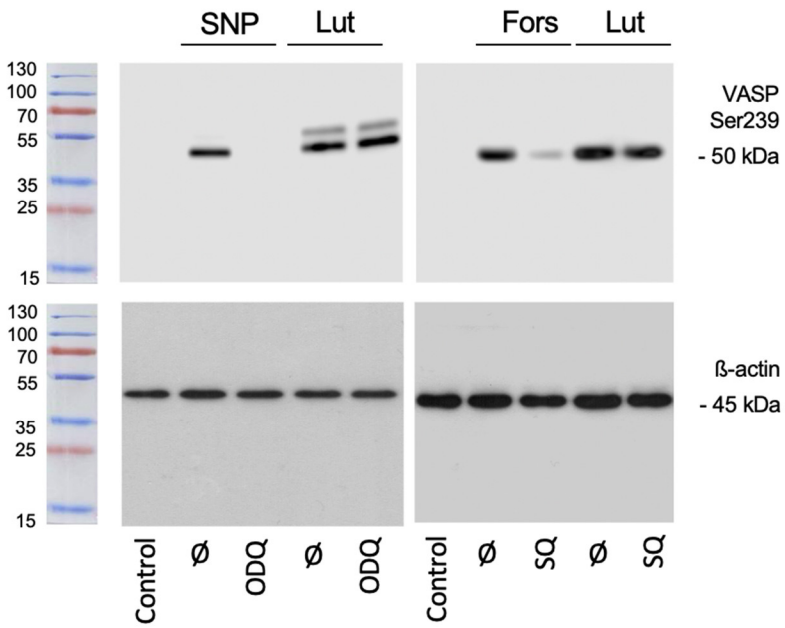
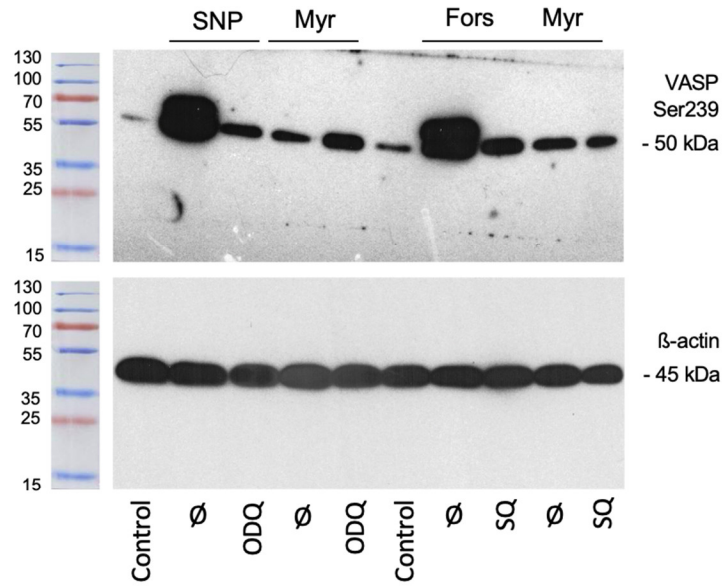
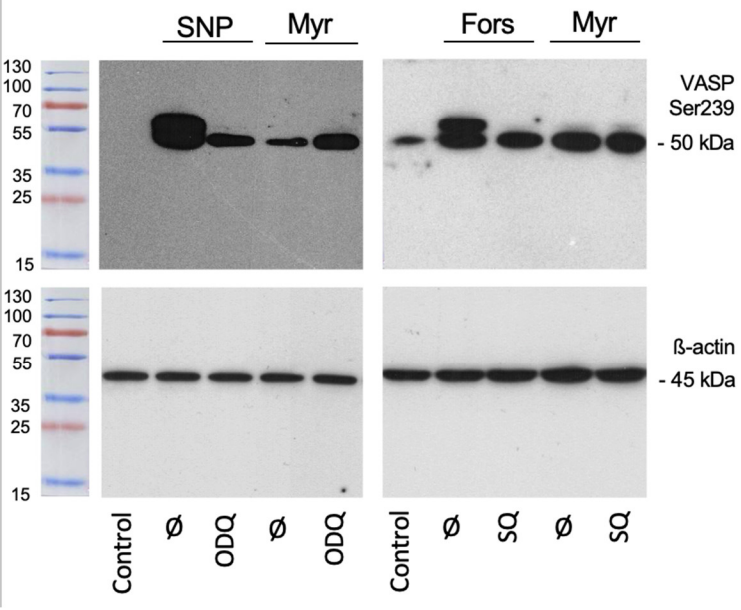


Figure S18
Full blots of figure 9b





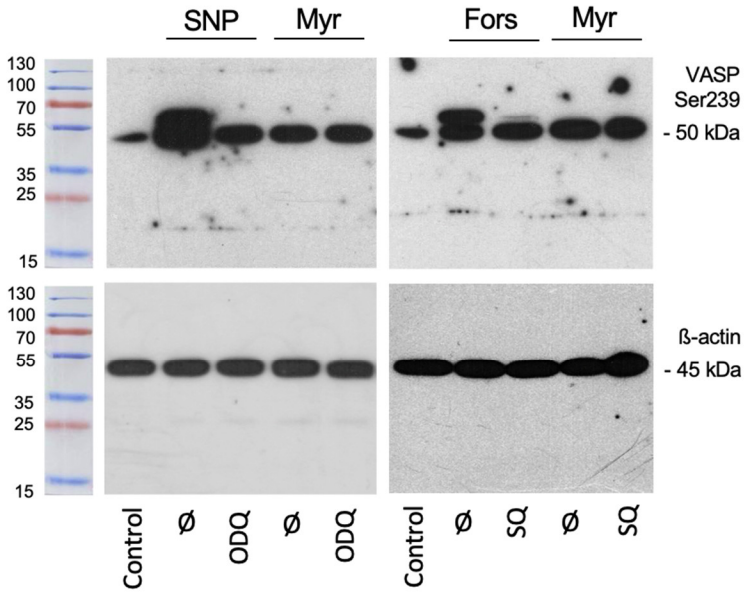
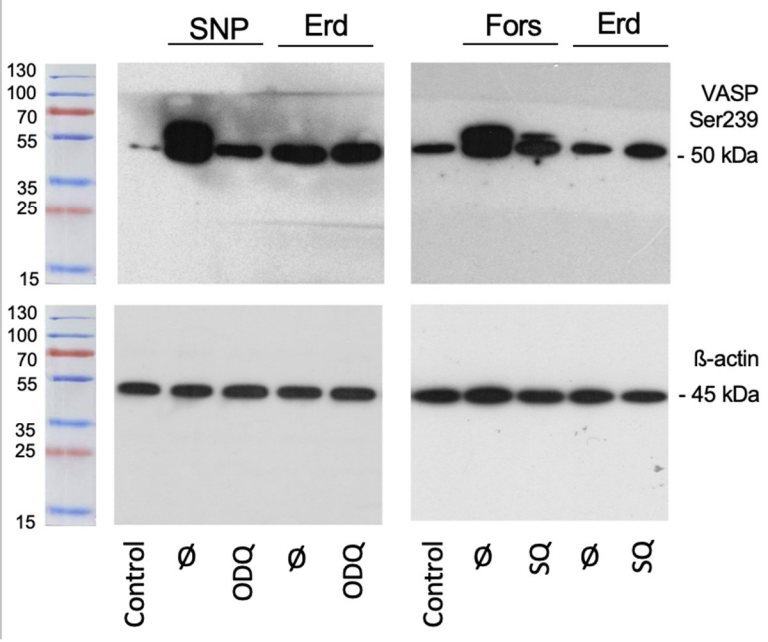
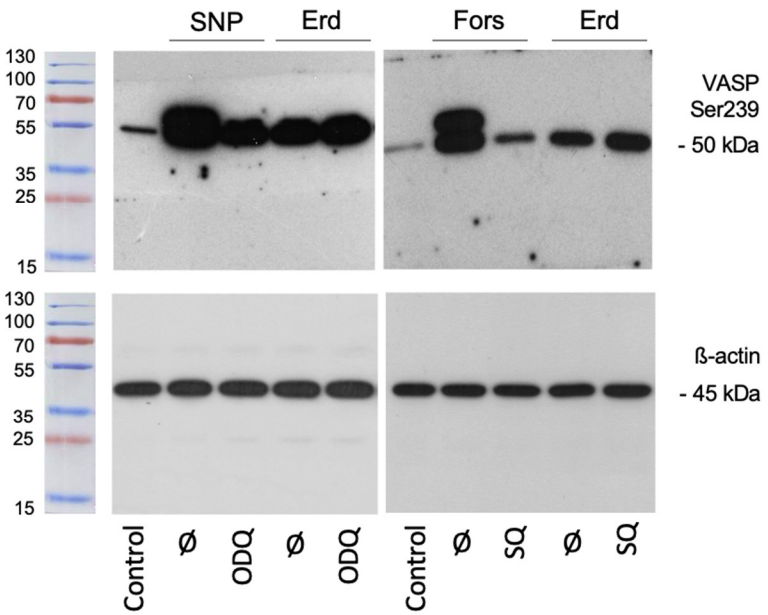


Figure S19
Full blots of figure 9c





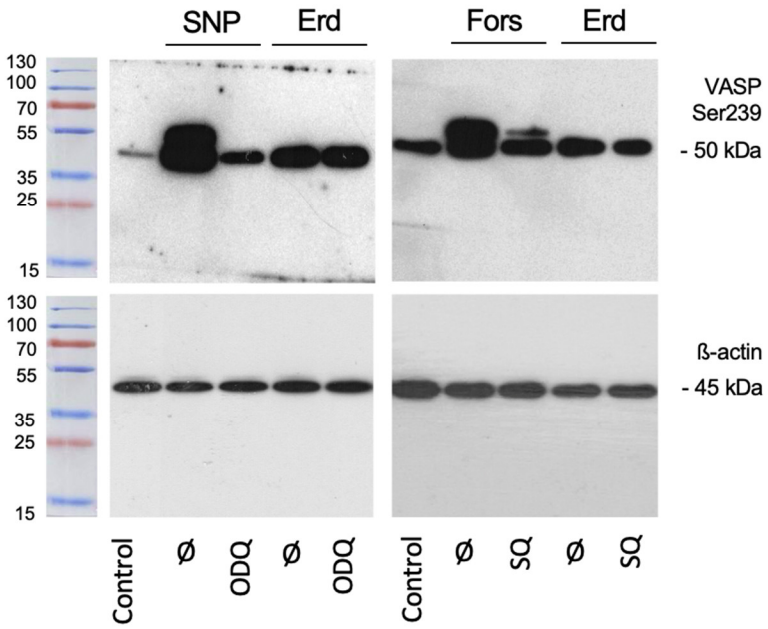
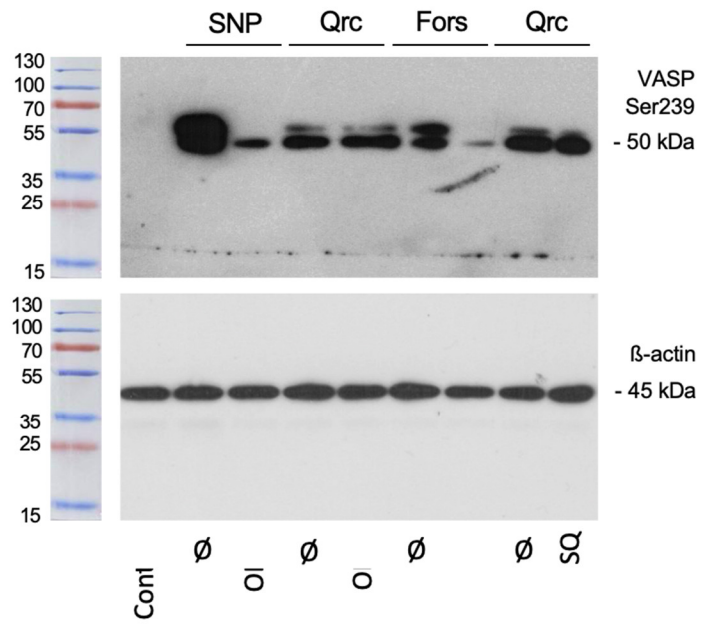
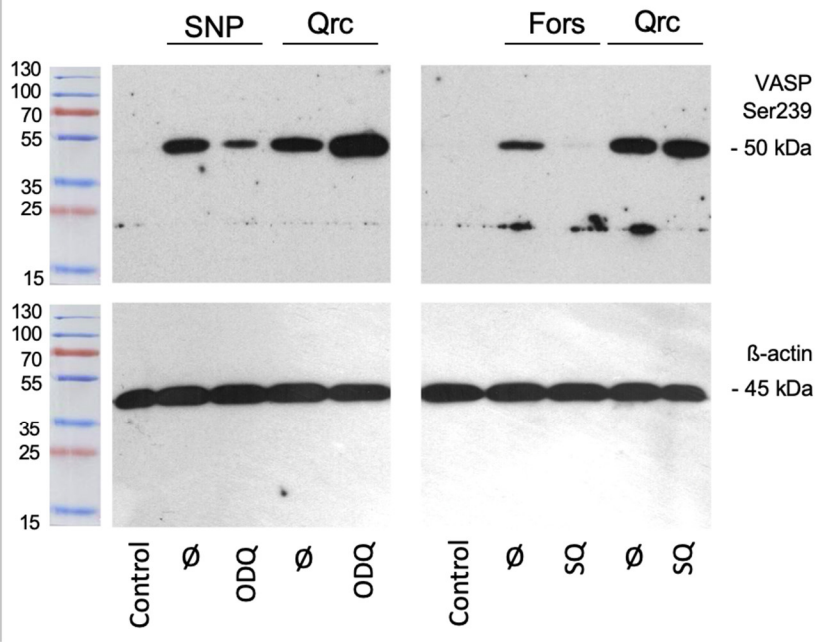


Figure S20
Full blots of figure 9d





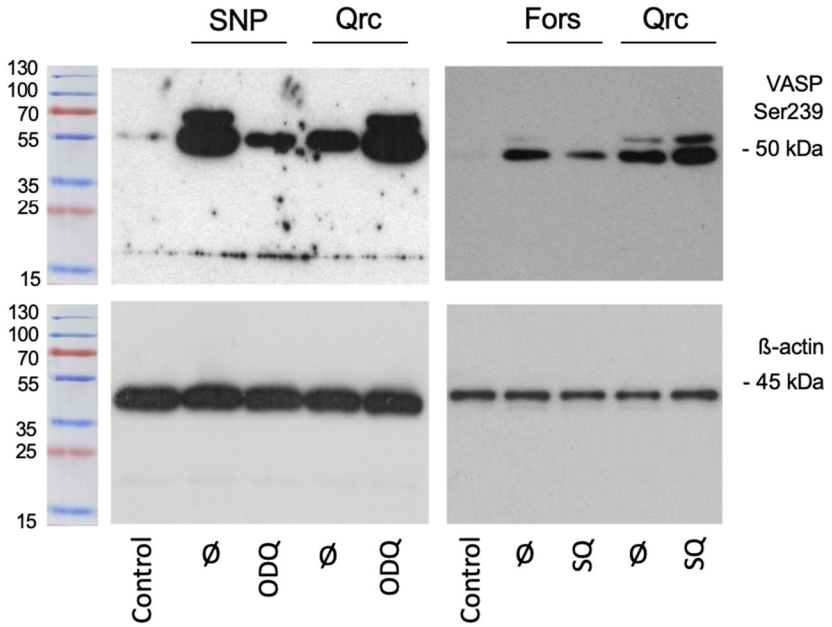
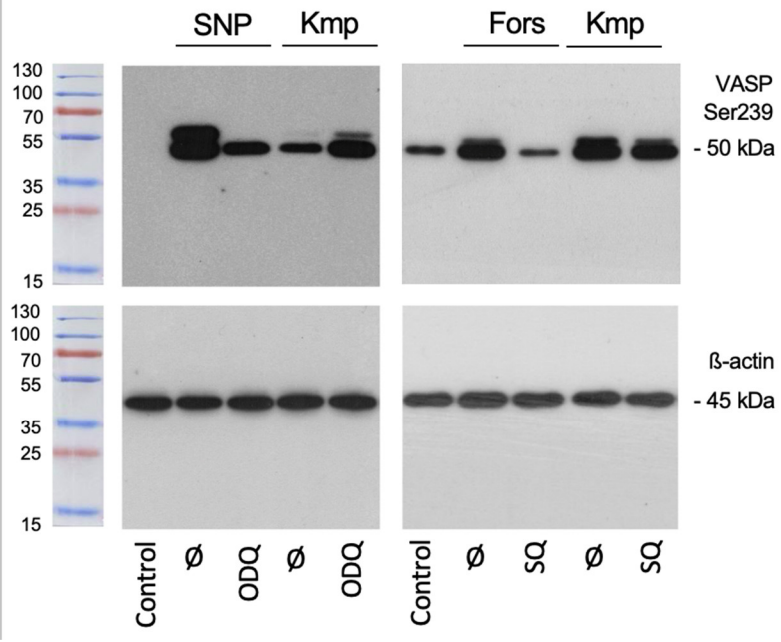
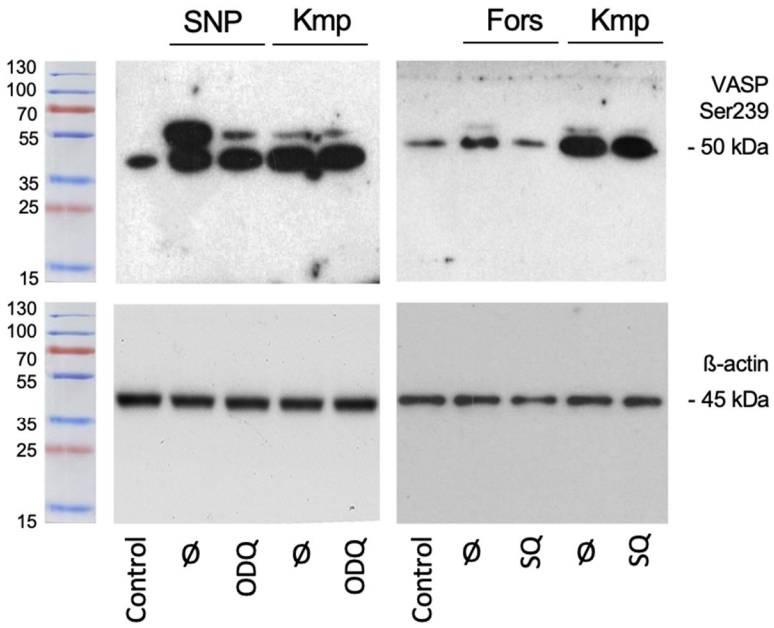


Figure S21
Full blots of figure 9e





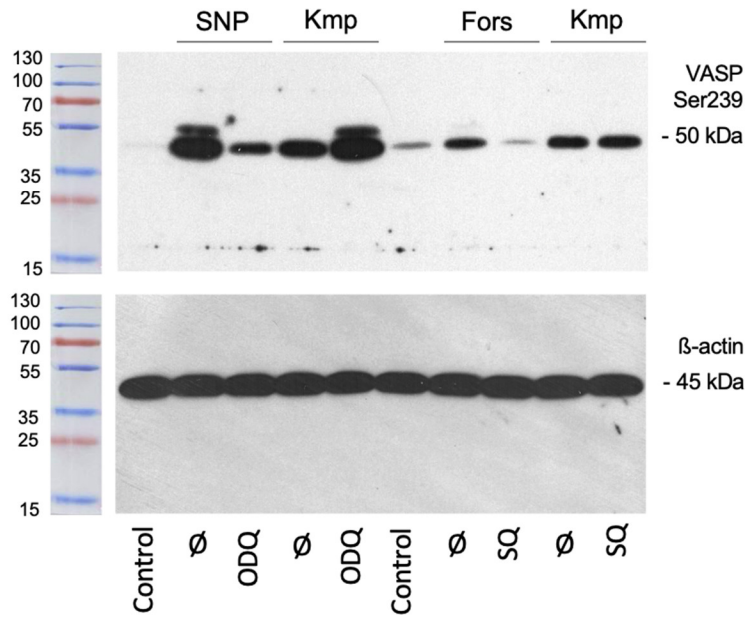
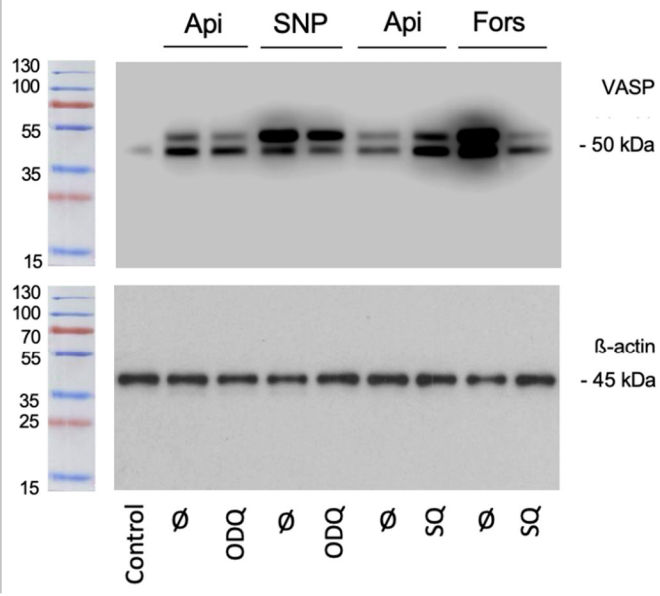


Figure S22
Full blots of figure 9f



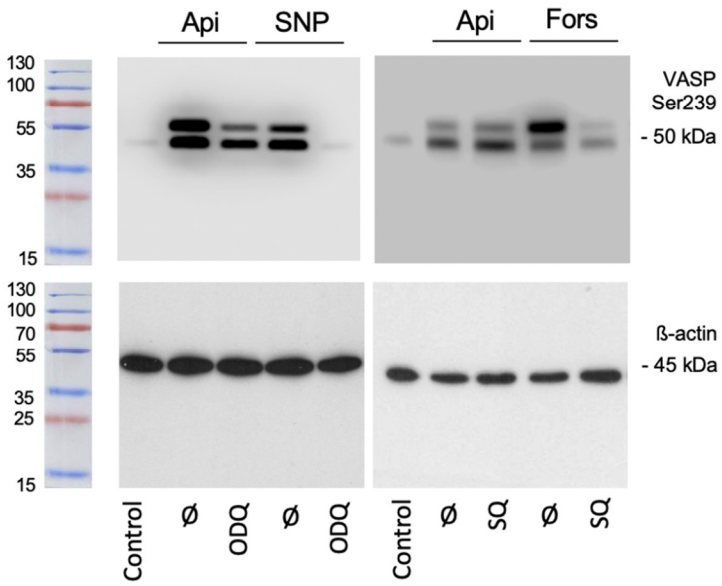


Figure S23
Full blots of figure 12