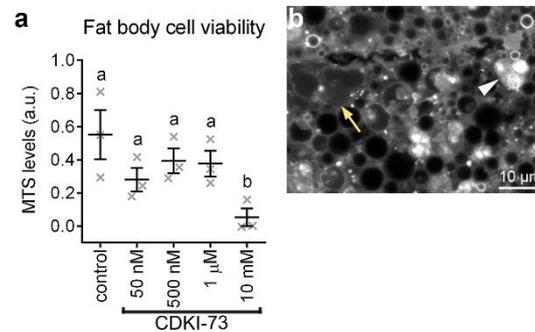
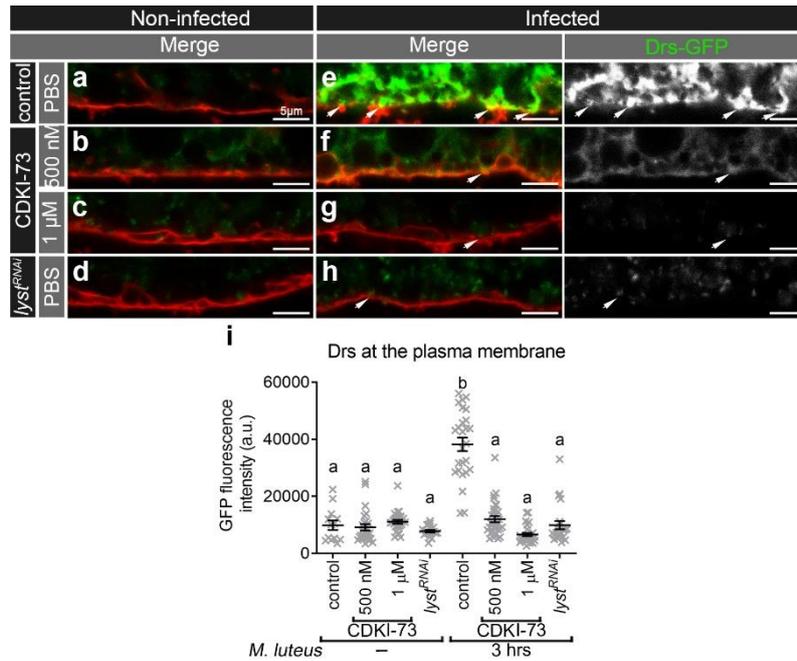


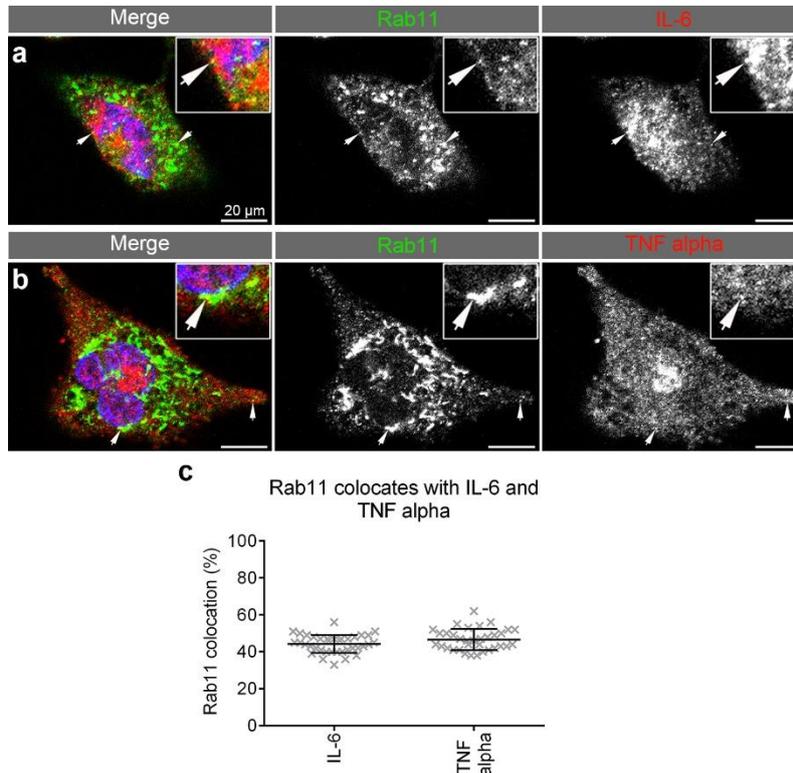
**Figure S1.** CDKI-73 alters the number and morphology of Rab11 endosomes. Histograms showing comparative analysis of the number of small  $\leq 1 \mu\text{m}$  Rab11 vesicles throughout the fat body cells (a), and the size of multivesicular Rab11 endosomes within 30 and 60 minutes after CDKI-73 treatment (b). The analysis was performed within  $40 \mu\text{m}^2$  regions of interest. One-way ANOVA and Dunnett's multiple comparison test showed significant differences between the means in treatment groups (depicted by different letters on the bars,  $p < 0.05$ ). Data are represented as mean  $\pm$  SEM.



**Figure S2.** CDKI-73 exhibits low cytotoxicity on fat body cells. (a) Histogram showing comparative analysis of metabolic activity/redox state of fat body cells. One-way ANOVA and Dunnett's multiple comparison test showed significant differences between the means in treatment groups (depicted by different letters on the bars,  $p < 0.0001$ ). Data are represented as mean  $\pm$  SEM. (b) Micrograph of confocal cross-sections through the fat body cell showing altered structure of fat body cell (yellow arrow) upon treatment with  $10 \mu\text{M}$  CDKI-73. Arrowhead depicts large multivesicular Rab11 endosomes. Scale bar:  $10 \mu\text{m}$ .



**Figure S3.** CDKI-73 reduces amount of Drs at the cell surface. **(a-h)** Confocal micrographs of cross-sections through the fat body cells showing Drs-GFP (green) in relation to the plasma membrane outlined by CellMask™ Deep Red (red). Representative images were from fat body tissues treated for 30 minutes either with PBS (**a, d, e, h**), CDKI-73 at 500 nM (**b, f**) or 1  $\mu$ M (**c, g**). Fat body cells were visualised from non-infected (**a-d**) and infected (*Micrococcus luteus*) larvae (**e-h**). Fat body cells were from the following genotypes: *CG-CAL4 > Rab11-GFP/+* (**a-c, e-g**) and *UAS-lyst<sup>RNAi/+</sup>*; *CG-CAL4 > Rab11-GFP/+* (**d, h**). Arrows depict Drs-GFP at the plasma membrane. Scale bars: 5  $\mu$ m. **(i)** Histogram showing comparative analysis of Drs-GFP signal at the plasma membrane. One-way ANOVA and Tukey's multiple comparison test showed significant differences between the means in designated groups (depicted by different letters on the bars,  $p < 0.0001$ ). Data are represented as mean  $\pm$  SEM.



**Figure S4.** IL-6 and TNF $\alpha$  co-localise with Rab11 endosomes in LPS-stimulated THP-1 macrophages. (a, b) Confocal micrographs showing IL-6 (red in a) and TNF $\alpha$  (red in b) in relation to Rab11 endosomes (green in a, b). The nucleus was depicted by staining with Hoechst 33258 DNA stain (blue in a, b). Representative images were from LPS-stimulated THP-1 macrophages. Scale bars: 20  $\mu$ m. (c) Percentage of Rab11 vesicles co-localisation with IL-6 and TNF $\alpha$ . Data are represented as mean  $\pm$  SEM.