S2 Text: Direct measurement of the transport of fluorescent compounds via PfMDR1.

The radiolabeled drug transport assay was repurposed to measure the PfMDR1-mediated transport of compounds with inherent fluorescence. Three fluorescent compounds — methylene blue and quinacrine (the first synthetic antimalarials to be deployed), as well as rhodamine B (a fluorescent dye) — have previously been identified as substrates of human P-gp [1, 2]. We confirmed these findings by demonstrating that all three compounds were effluxed from oocytes expressing human P-gp (S1 Data), and we also showed that these compounds were substrates of PfMDR1 (Fig 2 and S1 Data). The low level of leakage from the negative control oocytes (non-expressing oocytes and those expressing PfNT1) was most likely due to simple diffusion of the neutral species of the compound.

References

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