

Supplemental material:

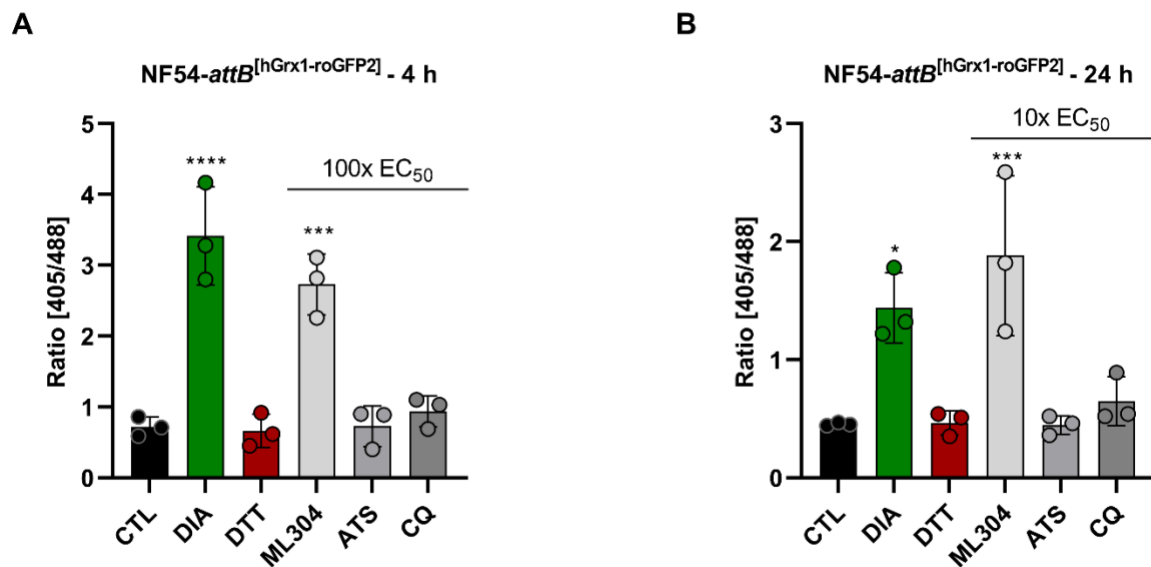


Figure S1. Mid- and long-term effects of ML304, ATS, and CQ on the redox ratio of *P. falciparum* NF54-attB^[hGrx1-roGFP2] parasites. *P. falciparum* NF54-attB^[hGrx1-roGFP2] parasites were incubated with 100 × EC₅₀ ML304, ATS and CQ in 4 h (A) experiments and with 10 × EC₅₀ in 24 h experiments (B). Via CLSM, no significant increase of the 405/488 nm fluorescence ratio of the redox sensor could be observed for the pharmacologically used antimalarial drugs ATS and CQ after 4 h and 24 h incubation. ML304 served as additional positive control and significantly increased the 405/488 nm ratio in both 4 h and 24 h incubation experiments. Non-treated parasites served as controls. All experiments included fully oxidized (1 mM DIA) and fully reduced (10 mM DTT) parasites. CLSM data was obtained from 10 to 20 trophozoites for each experiment and each incubation time. Mean values and standard deviation (±SD) are shown for three independent experiments. A one-way ANOVA test with 95% confidence intervals with the Dunnett's multiple comparison test was applied for statistical analysis of significance (*, p < 0.05; **, p < 0.01; ***, p < 0.001; ****, p < 0.0001).

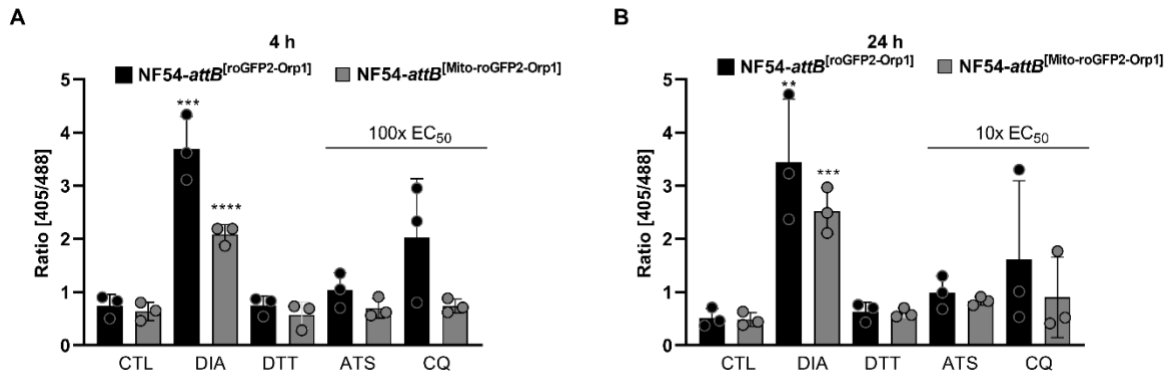


Figure S2. Mid- and long-term effects of ATS and CQ on the redox ratio of *P. falciparum* NF54-attB^[roGFP2-Orp1] and NF54-attB^[Mito-roGFP2-Orp1]-transfected parasites. *P. falciparum* NF54-attB^[roGFP2-Orp1] and NF54-attB^[Mito-roGFP2-Orp1] parasites were incubated with 100 × EC₅₀ ATS and CQ in 4 h experiments (A) and with 10 × EC₅₀ in 24 h experiments (B). ATS slightly affected the fluorescence ratio of the cytosolic sensor after 4 h and 24 h as determined using CLSM. CQ oxidized both probes but did not lead to a significant increase in the 405/488 nm ratio after 4 h and 24 h. Non-treated parasites served as controls. All experiments included fully oxidized (1 mM DIA) and fully reduced (10 mM DTT) parasites. CLSM data comprised 10-20 trophozoites analyzed per experiment for each incubation. Mean values and error bars indicated as standard deviation (±SD) are shown for three independent experiments. A one-way ANOVA test with 95% confidence intervals with the Dunnett's multiple comparison test was applied for statistical analysis of significance (**, p < 0.01; ***, p < 0.001; ****, p < 0.0001).