



Plasmodium falciparum potency Assessment of 5 potential anti-malaria compounds

For Patrick Thomson, University of Edinburgh

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Basic Experimental Protocol

- Cell Line: *Plasmodium falciparum* 3D7
- Media: RPMI 1640, +Albumax II
- 250nl of all test compounds, and 100% inhibition control (10mM Mefloquine), are added to assay plate using Labcyte Echo.
- 50ul of Plasmodium culture is added to each well on plate at 0.5% Parasitemia, 5% Hematocrit using Matrix Wellmate.
- Incubate at 37°C / 1% O₂, 3% CO₂, balance N₂ for 72 hours.
- Add 10µl of Sybrgreen in lysis buffer to each well on the assay plate and incubate at room temperature overnight in the absence of light.
- Read plates at excitation 485nm, emission 528nm

% Inhibition for each test compound is calculated using the following equation:

$$\% \text{ Inhibition} = 100 - \left(\frac{\text{TEST COMPOUND} - \text{BLANK}}{\text{NO INHIBITION} - \text{BLANK}} \right) * 100$$

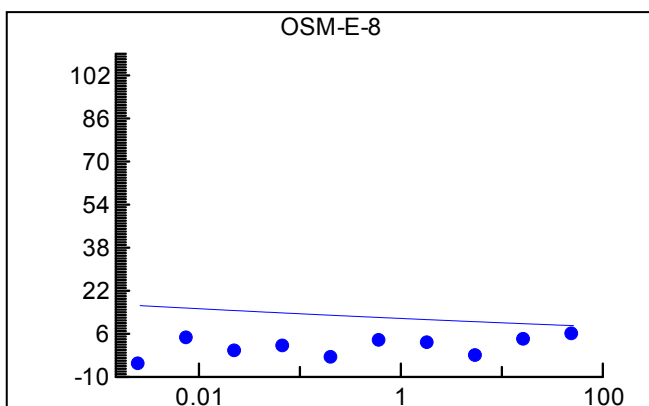
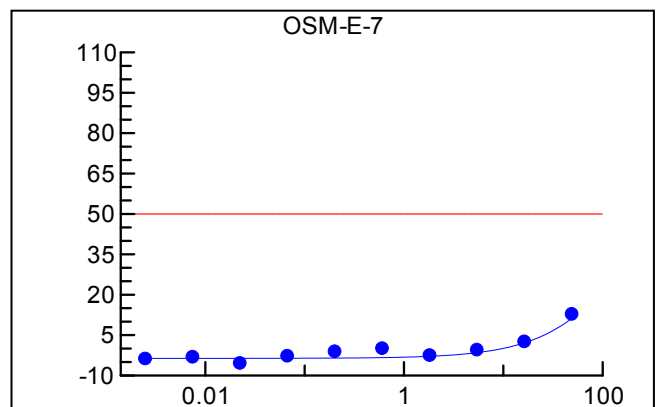
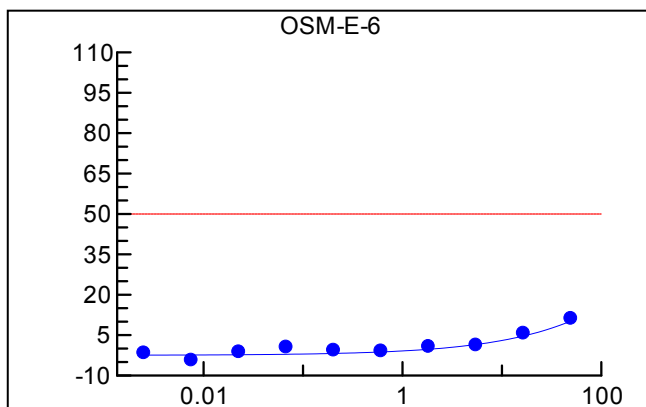
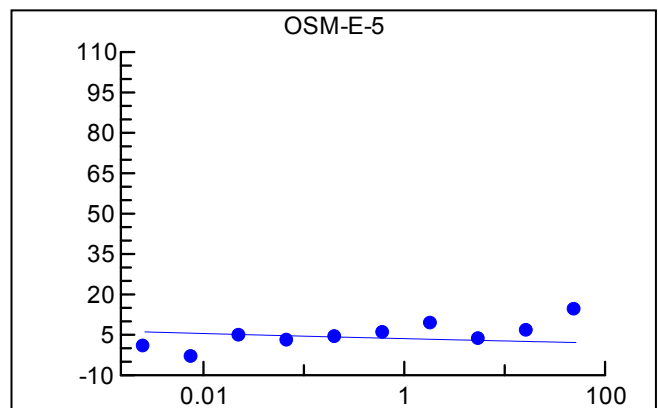
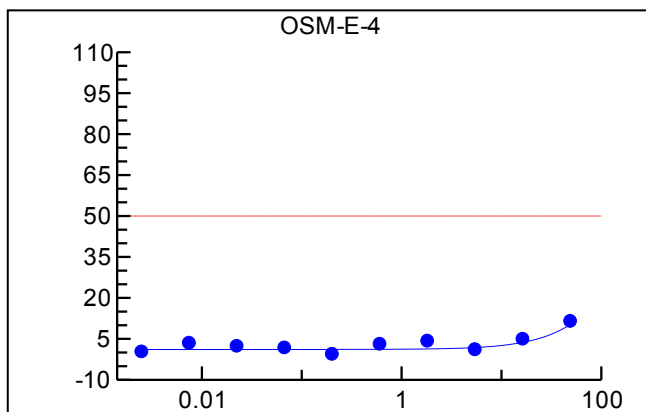
EC50 values are calculated using IDBS Activity Base XLFit version Model 205

Each compound was run in singlicate with standard compound curve (mefloquine) on each plate.

Data Summary

Compound	EC50 (uM)
OSM-E-4	>50
OSM-E-5	>50
OSM-E-6	>50
OSM-E-7	>50
OSM-E-8	>50

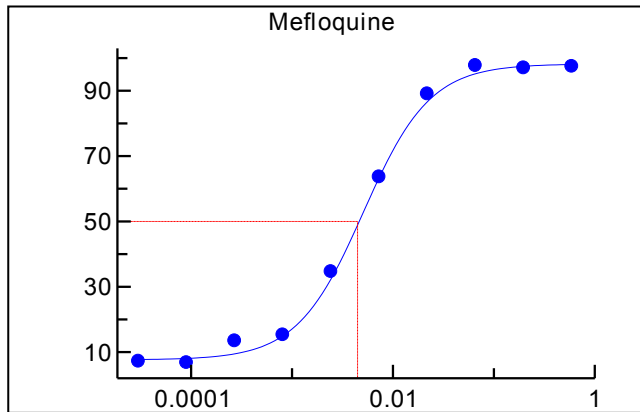
Compound Curves



Assay performance and Plate statistics

Plate	Av 0% Inhib.	stdev	Av 100% Inhib.	stdev	S:B	Z'
62288	4356.813	153.41	748.22	43.41	5.823	0.84

Standard Compound



Mefloquine EC50
Plate 62288 – 44.56nm