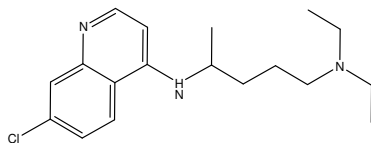


iii) Statistic Manipulation of Acquired Data and Plotting of IC₅₀ curves obtained

To determine the IC₅₀ value for a given drug tested:

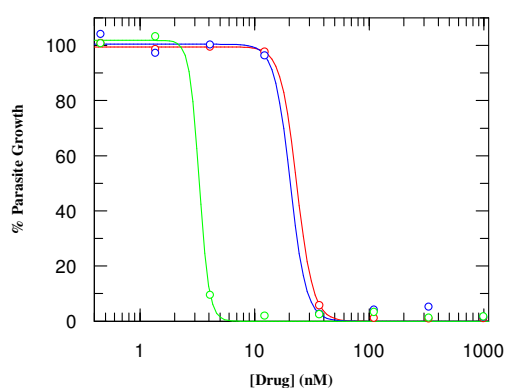
Plot the drug's concentrations used and the corresponding growth percentages determined; in the obtained curve, the IC₅₀ value is the drug concentration (x axis) that corresponds to a parasite growth of only 50%. Using the computer program GraFit, version 3.01 (Erithacus Software, London, UK) the relevant statistic data for each curve is obtained: reduced chi squared for the curve, y range, IC₅₀ value, slope factor and correspondent standard errors.

Chloroquine (7-chloro-N-(5-(diethylamino)pentan-2-yl)quinolin-4-amine)

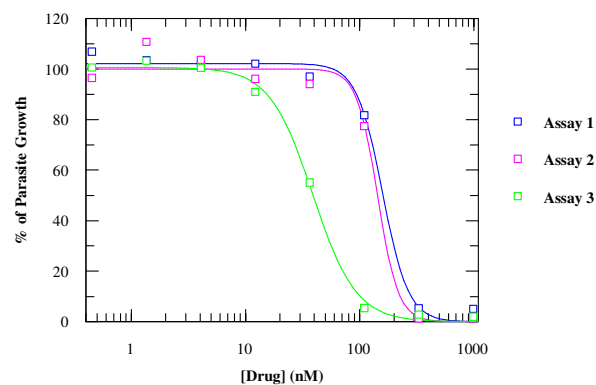


➤ IC₅₀ curves obtained from parasite counting data:

(Against 3D7 sensitive strain)



(Against TM6 resistant strain)



➤ Information obtained from IC₅₀ curves:

(Against 3D7 strain)

Assay 1		
Variable:	Value	Std. Err.
Y range	99.519	0.572
IC ₅₀	23.320	1.012
Slope Factor	6.086	0.541
Reduced χ^2	0.98	

(Against TM6 strain)

Assay 1		
Variable:	Value	Std. Err.
Y range	102.20	1.68
IC ₅₀	158.46	11.485
Slope Factor	3.826	0.663
Reduced χ^2	13.92	

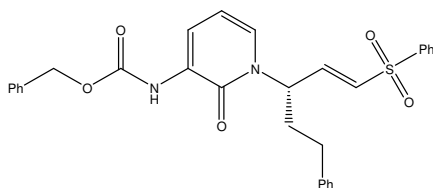
Assay 2		
Variable:	Value	Std. Err.
Y range	100.44	2.11
IC ₅₀	20.455	2.750
Slope Factor	6.190	1.511
Reduced χ^2	13.34	

Assay 2		
Variable:	Value	Std. Err.
Y range	100.04	2.77
IC ₅₀	143.22	24.33
Slope Factor	4.771	2.844
Reduced χ^2	38.00	

Assay 3		
Variable:	Value	Std. Err.
Y range	101.86	1.584
IC ₅₀	3.283	0.615
Slope Factor	10.153	7.849
Reduced χ^2	5.05	

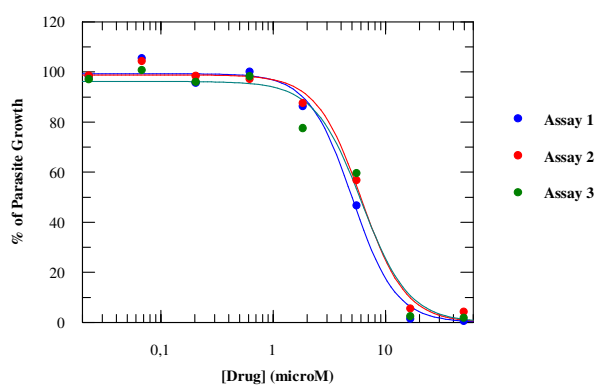
Assay 3		
Variable:	Value	Std. Err.
Y range	100.64	1.51
IC ₅₀	38.914	1.803
Slope Factor	2.305	0.253
Reduced χ^2	6.97	

Benzyl 1,2-dihydro-2-oxo-1-((S,E)-5-phenyl-1-(phenylsulfonyl)pent-1-en-3-yl)pyridin-3-yl-carbamate (compound 186)

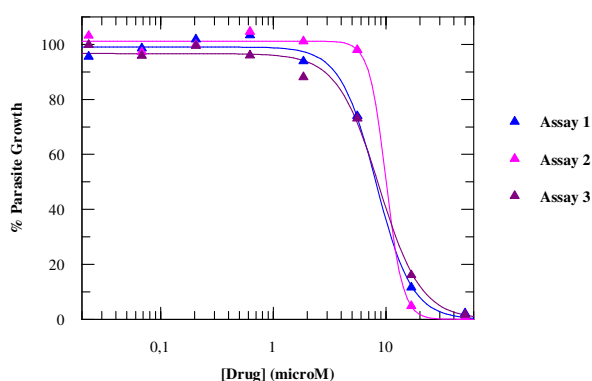


➤ IC₅₀ curves obtained from parasite counting data:

(Against 3D7 sensitive strain)



(Against TM6 resistant strain)



➤ Information obtained from IC₅₀ curves:

(Against 3D7 strain)

Assay 1		
Variable:	Value	Std. Err.
Y range	99.295	2.254
IC ₅₀	5.031	0.402
Slope Factor	2.245	0.408
Reduced χ^2	19.37	

Assay 2		
Variable:	Value	Std. Err.
Y range	99.056	2.060
IC ₅₀	6.019	0.457
Slope Factor	2.159	0.343
Reduced χ^2	17.01	

Assay 3		
Variable:	Value	Std. Err.
Y range	96.185	3.715
IC ₅₀	6.085	0.883
Slope Factor	2.064	0.557
Reduced χ^2	53.91	

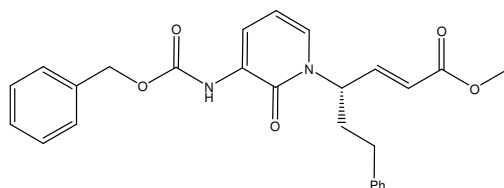
(Against TM6 strain)

Assay 1		
Variable:	Value	Std. Err.
Y range	99.061	1.527
IC ₅₀	8.162	0.487
Slope Factor	2.725	0.306
Reduced χ^2	10.88	

Assay 2		
Variable:	Value	Std. Err.
Y range	101.20	1.158
IC ₅₀	10.007	0.884
Slope Factor	5.822	0.952
Reduced χ^2	6.70	

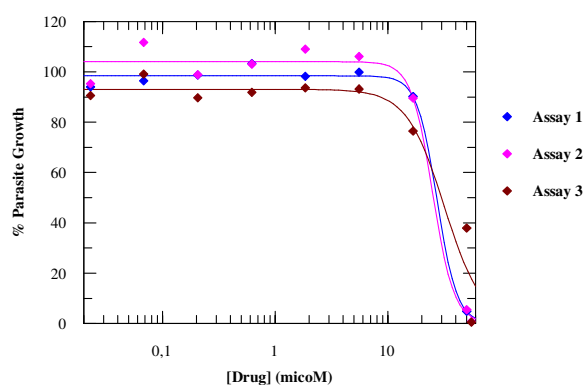
Assay 3		
Variable:	Value	Std. Err.
Y range	96.639	1.626
IC ₅₀	8.683	0.580
Slope Factor	2.338	0.267
Reduced χ^2	11.95	

(E)-(S)-4-(3-Benzyloxycarbonylamino-2-oxo-2H-pyridin-1-yl)-6-phenyl-hex-2-enoic acid methyl ester (compound 185)

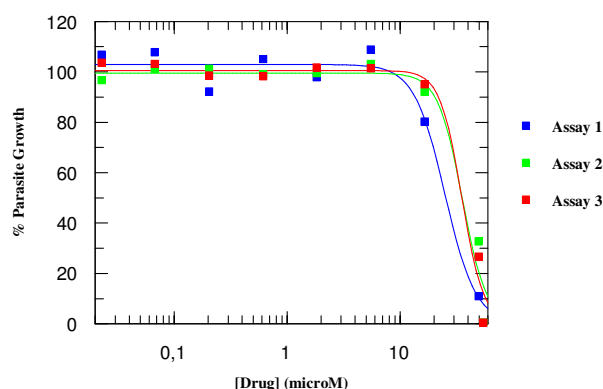


➤ IC₅₀ curves obtained from parasite counting data:

(Against 3D7 sensitive strain)



(Against TM6 resistant strain)



➤ Information obtained from IC₅₀ curves:

(Against 3D7 strain)

Assay 1		
Variable:	Value	Std. Err.
Y range	98.402	1.295
IC ₅₀	27.278	2.153
Slope Factor	4.892	0.703
Reduced χ^2	10.03	

(Against TM6 strain)

Assay 1		
Variable:	Value	Std. Err.
Y range	102.96	2.801
IC ₅₀	24.964	2.953
Slope Factor	3.183	0.777
Reduced χ^2	45.82	

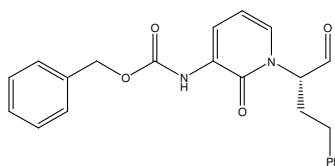
Assay 2		
Variable:	Value	Std. Err.
Y range	104.02	2.336
IC ₅₀	24.919	2.815
Slope Factor	4.585	1.071
Reduced χ^2	32.57	

Assay 2		
Variable:	Value	Std. Err.
Y range	99.523	3.324
IC ₅₀	35.553	5.858
Slope Factor	4.014	1.495
Reduced χ^2	55.82	

Assay 3		
Variable:	Value	Std. Err.
Y range	93.012	4.253
IC ₅₀	31.667	5.666
Slope Factor	2.607	0.848
Reduced χ^2	10.40	

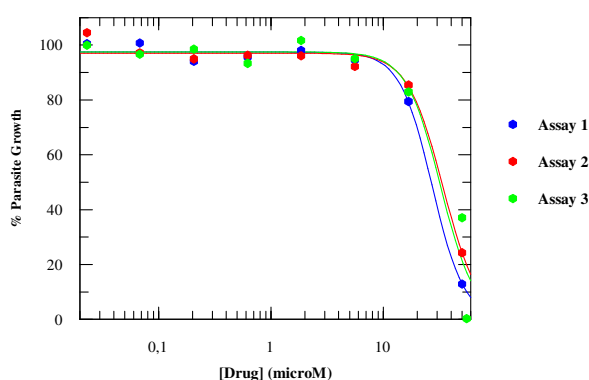
Assay 3		
Variable:	Value	Std. Err.
Y range	100.56	2.654
IC ₅₀	35.191	5.152
Slope Factor	4.501	1.452
Reduced χ^2	42.15	

**[1-((S)-1-Formyl-3-phenyl-propyl)-2-oxo-1,2-dihydro-pyridin-3-yl]-carbamic acid
benzyl ester (compound 183)**

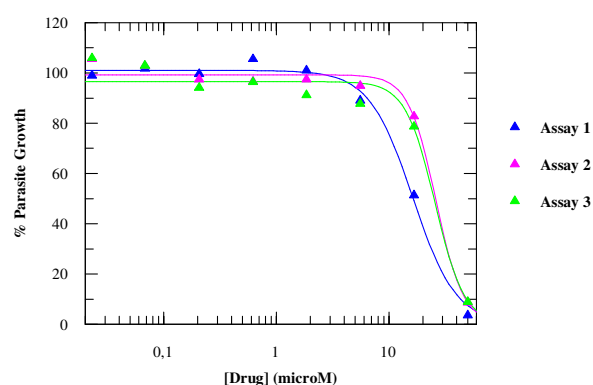


➤ IC₅₀ curves obtained from parasite counting data:

(Against 3D7 sensitive strain)



(Against TM6 resistant strain)



➤ Information obtained from IC₅₀ curves:

(Against 3D7 strain)

Assay 1		
Variable:	Value	Std. Err.
Y range	97.443	1.154
IC ₅₀	27.071	1.391
Slope Factor	3.042	0.280
Reduced χ^2	7.72	

(Against TM6 strain)

Assay 1		
Variable:	Value	Std. Err.
Y range	100.99	1.60
IC ₅₀	16.292	1.008
Slope Factor	2.247	0.310
Reduced χ^2	12.50	

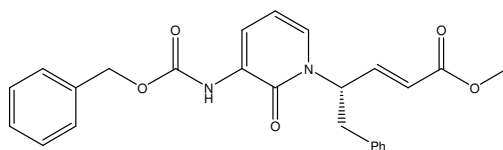
Assay 2		
Variable:	Value	Std. Err.
Y range	97.066	1.658
IC ₅₀	33.729	2.498
Slope Factor	2.764	0.406
Reduced χ^2	15.85	

Assay 2		
Variable:	Value	Std. Err.
Y range	99.222	1.661
IC ₅₀	26.109	2.001
Slope Factor	3.567	0.528
Reduced χ^2	16.27	

Assay 3		
Variable:	Value	Std. Err.
Y range	97.504	4.083
IC ₅₀	32.113	5.276
Slope Factor	2.852	0.852
Reduced χ^2	9.64	

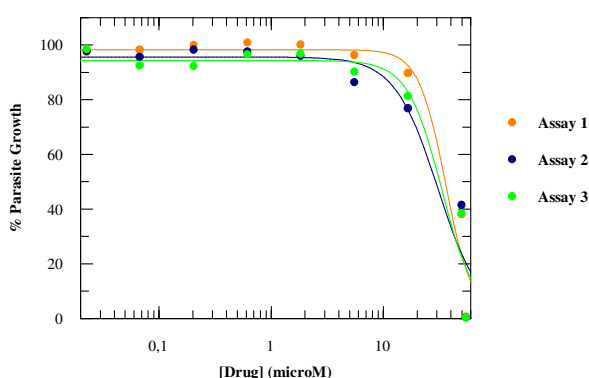
Assay 3		
Variable:	Value	Std. Err.
Y range	96.553	2.816
IC ₅₀	25.704	3.279
Slope Factor	3.313	0.802
Reduced χ^2	46.33	

(E)-(S)-4-(3-Benzyloxycarbonylamino-2-oxo-2H-pyridin-1-yl)-5-phenyl-pent-2-enoic acid methyl ester (compound 184)

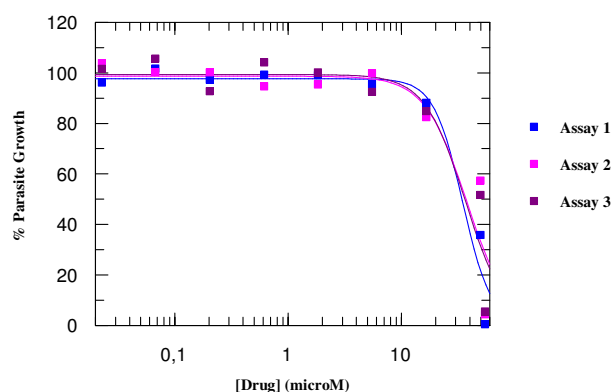


➤ IC₅₀ curves obtained from parasite counting data:

(Against 3D7 sensitive strain)



(Against TM6 resistant strain)



➤ Information obtained from IC₅₀ curves:

(Against 3D7 strain)

Assay 1		
Variable:	Value	Std. Err.
Y range	98.266	3.892
IC ₅₀	35.849	6.063
Slope Factor	3.583	1.297
Reduced χ^2	89.41	

(Against TM6 strain)

Assay 1		
Variable:	Value	Std. Err.
Y range	97.699	3.751
IC ₅₀	34.487	5.692
Slope Factor	3.441	1.177
Reduced χ^2	82.97	

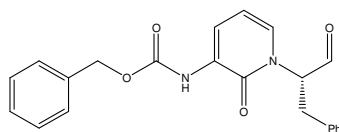
Assay 2		
Variable:	Value	Std. Err.
Y range	96.102	4.738
IC ₅₀	38.350	8.039
Slope Factor	3.5964	1.891
Reduced χ^2	132.70	

Assay 2		
Variable:	Value	Std. Err.
Y range	98.691	6.098
IC ₅₀	37.290	8.821
Slope Factor	2.350	1.107
Reduced χ^2	205.8	

Assay 3		
Variable:	Value	Std. Err.
Y range	94.282	4.234
IC ₅₀	33.084	5.773
Slope Factor	2.854	0.915
Reduced χ^2	103.50	

Assay 3		
Variable:	Value	Std. Err.
Y range	99.330	5.472
IC ₅₀	36.226	7.633
Slope Factor	2.446	1.056
Reduced χ^2	168.7	

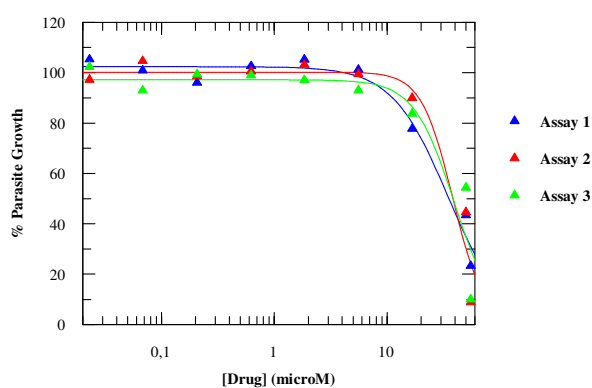
[1-((S)-1-Benzyl-2-oxo-ethyl)-2-oxo-1,2-dihydro-pyridin-3-yl]-carbamic acid benzyl ester (compound 182)



➤ IC₅₀ curves obtained from parasite counting data:

(Against 3D7 sensitive strain)

(Against TM6 resistant strain)



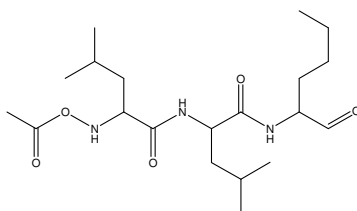
No graph was possible to obtain due to results being out of drug concentration range considered.

➤ Information obtained from IC₅₀ curves:

(Against 3D7 strain)

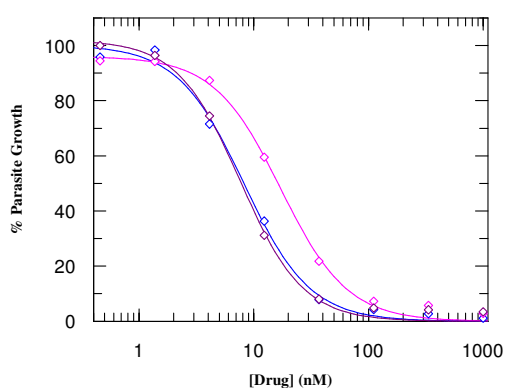
Assay 1		
Variable:	Value	Std. Err.
Y range	102.42	2.59
IC ₅₀	34.365	3.577
Slope Factor	1.767	0.333
Reduced χ^2	34.78	
Assay 2		
Variable:	Value	Std. Err.
Y range	100.24	3.76
IC ₅₀	38.186	5.720
Slope Factor	3.136	1.181
Reduced χ^2	82.80	
Assay 3		
Variable:	Value	Std. Err.
Y range	97.190	5.004
IC ₅₀	39.292	7.468
Slope Factor	2.436	1.098
Reduced χ^2	141.20	

ALLN (N-Acetyl-leucyl-leucyl-norleucinal)

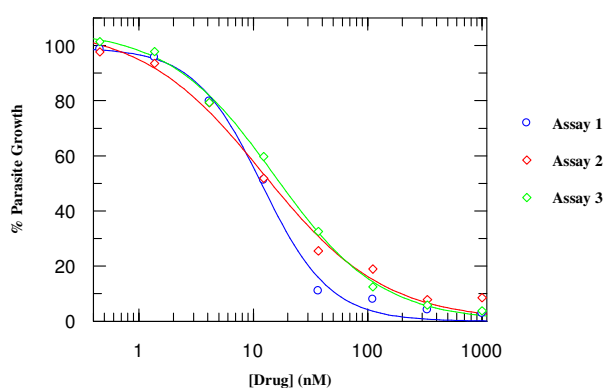


➤ IC₅₀ curves obtained from parasite counting data:

(Against 3D7 sensitive strain)



(Against TM6 resistant strain)



➤ Information obtained from IC₅₀ curves:

(Against 3D7 strain)

Assay 1		
Variable:	Value	Std. Err.
Y range	100.21	3.21
IC ₅₀	8.172	0.761
Slope Factor	1.502	0.168
Reduced χ^2	10.4	

Assay 2		
Variable:	Value	Std. Err.
Y range	96.089	2.097
IC ₅₀	17.187	1.255
Slope Factor	1.494	0.135
Reduced χ^2	7.13	

Assay 3		
Variable:	Value	Std. Err.
Y range	102.01	2.83
IC ₅₀	7.591	0.592
Slope Factor	1.588	0.155
Reduced χ^2	8.26	

(Against TM6 strain)

Assay 1		
Variable:	Value	Std. Err.
Y range	99.231	3.447
IC ₅₀	11.891	1.291
Slope Factor	1.462	0.192
Reduced χ^2	14.83	

Assay 2		
Variable:	Value	Std. Err.
Y range	107.05	6.937
IC ₅₀	12.222	3.059
Slope Factor	0.819	0.115
Reduced χ^2	19.77	

Assay 3		
Variable:	Value	Std. Err.
Y range	105.82	2.39
IC ₅₀	15.317	1.309
Slope Factor	0.937	0.056
Reduced χ^2	3.86	