**Table 1 *In vitro* drug susceptibility of *Plasmodium falciparum* isolates to 12 anti-malarial drugs**

The drug sensitivities of the isolates collected from clinics in three sentinel sites in Ghana were assessed using the SYBR Green1 method and the results presented below. Proportion of *P. falciparum* clinical isolates per sentinel site that were resistant to the anti-malarial drugs tested, based on literature cut-off IC50 values (last column) is also shown

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Drug** | **Geometric mean IC50 values (nM) of anti-malarial drugs per study site (range)** | | | **Percent parasite resistance per study site** | | | **Cut-off for resistance** |
| **Hohoe** | **Navrongo** | **Cape Coast** | **Hohoe** | **Navrongo** | **Cape Coast** |
| **Chloroquine** | 30.91  (9.7-467.18) | 28.98  (12.02-500.38) | 36.85  (11.28-1,441.78) | 10.5% | 11.1% | 19% | >100 nM |
| **Mefloquine** | 12.24  (3.6-102.91) | 8.77  (3.9-125.87) | 9.76  (3.04-48.82) | 23.1% | 12.2% | 14.6% | >30 nM |
| **Amodiaquine** | 5.20  (1.29-52.24) | 6.10  (1.16-144.26) | 7.7  (1.03-167.63) | 0% | 2.3% | 9.3% | > 80 nM |
| **Lumefantrine** | 6.48  (1.13-75.22) | 4.80  (1.23-232.66) | 4.71  (1.17-52.73) | 0% | 2.1% | 0% | > 150 nM |
| **Doxycycline** | 8349.9  (628.30-109,365.75) | 7,835  (505.67-105,202) | 10,672.5  (650.52-10,6564) | 17.5% | 23.6% | 30% | > 35 μM |
| **Piperaquine** | 29.69  (12.4-230.1) | 23.91  (11.66-82.9) | 33.22  (10.5-633.4) | - | - | - | NA |
| **Artesunate** | 3.59  (1.79-8.50) | 3.67  (1.07-9.36) | 4.06  (1.38-8.68) | 0% | 0% | 0% | >20 nM |
| **Qunine** | 126.32  (41.23-6,381.97) | 73.59  (39.80-282.13) | 136.49  (33.82-3,306.77) | 10.2% | 0% | 11.3 % | > 800 nM |
| **Dihydroartemisinin** | 3.58  (2.00-10.74) | 3.82  (2.32-10.6) | 4.49  (1.51-10.21) | 0% | 0% | 0% | >12 nM |
| **Artemether** | 5.12  (2.21-10.41) | 4.25  (1.94-10.32) | 4.25  (1.64-8.88) | 0% | 0% | 0% | >30 nM |
| **Tafenoquine** | 113.99  (28.77-2,719.5) | 47.29  (26.50-140.47) | 160.19  (25.62-4,898.67) | - | - | - | NA |
| **Atovaquone** | 2.72  (0.49-67.77) | 1.16  (0.40-11.66) | 1.67  (0.46-74.60) | 0% | 0% | 0% | >1,900 nM |

NA=Not available in literature