

Supporting Information

Malaria Causal Prophylactic Activity of Imidazolidinedione Derivatives, Jian Guan, Xihong Wang, Kirsten Smith, [†]Arba Ager, [†]Gettayacamin Montip, Dennis Kyle, Wilbur K. Milhous, Michael P. Kozar, Alan J. Magill and Ai J. Lin*

Elemental Analysis Data

Compound #	Formula	Formular Weight	Calcd			Found		
			C	H	N	C	H	N
5a	$\text{C}_{19}\text{H}_{23}\text{N}_5\text{O}_3\text{Cl}_2 \cdot \frac{3}{4}\text{H}_2\text{O}$	453.824	50.28	5.44	15.43	50.27	5.11	15.22
5b	$\text{C}_{17}\text{H}_{19}\text{N}_5\text{O}_3\text{Cl}_2$	412.270	49.53	4.65	16.99	49.70	4.56	16.99
5c	$\text{C}_{18}\text{H}_{21}\text{N}_5\text{O}_3\text{Cl}_2$	426.297	50.71	4.97	16.43	50.41	4.99	16.31
6a	$\text{C}_{19}\text{H}_{23}\text{N}_5\text{O}_3\text{Cl}_2$	440.324	51.83	5.26	15.91	51.96	5.21	15.92
6b	$\text{C}_{17}\text{H}_{19}\text{N}_5\text{O}_3\text{Cl}_2$	412.270	49.53	4.65	16.99	49.37	4.67	16.89
6c	$\text{C}_{17}\text{H}_{19}\text{N}_5\text{O}_3\text{Cl}_2$	412.270	49.53	4.65	16.99	49.45	4.57	16.94

NMR and MS data of 5a, 5b, 5c, 6a, 6b, and 6c

5a: ^1H NMR (CDCl_3 , 300 MHz) δ 13.8 (1H, s), 12.0 (1H, s), 7.92 (1H, d, $J = 2.4$ Hz), 7.53 (1H, d, $J = 8.6$ Hz), 7.25 (1H, dd, $J = 8.6$ Hz, and 2.4 Hz), 4.48 (1H, m), 2.43 (1H, m), 1.76 (4H, m), 1.44 (6H, d, $J = 6.9$ Hz), 1.01(6H, t, $J = 7.3$ Hz); MS (m/z) 440 (M+).

5b: ^1H NMR (CDCl_3 , 300 Hz) δ 7.86 (1H, d, $J = 2.5$ Hz), 7.51 (1H, d, $J = 8.6$ Hz), 7.22 (1H, dd, $J = 8.6$ Hz and 2.5 Hz), 4.45 (1H, m), 2.77 (1H, m), 1.39 (6H, d, $J = 6.9$ Hz), 1.33(6H, d, $J = 6.9$ Hz). MS (m/z) 412 (M+), 342.

5c: ^1H NMR (CDCl_3 , 300Hz) δ 7.90 (1H, d, $J = 2.5$ Hz), 7.53 (1H, d, $J = 8.6$ Hz), 7.25 (1H, dd, $J = 8.6$ Hz and 2.5 Hz), 4.48 (1H, m), 1.42 (6H, d, $J = 7.1$ Hz), 1.40 (9H, s). MS (m/z) 426 (M+), and 342.

6a: ^1H NMR (CDCl_3 , 300 Hz) δ 7.57 (1H, d, J = 2.4 Hz), 7.56 (1H, d, J = 8.6 Hz), 7.30 (1H, dd, J = 2.4 and 8.6 Hz), 4.13 (1H, m), 2.31 (1H, m), 1.74 (4H, m), 1.26 (6H, d, J = 6.6 Hz), 0.97 (6H, t, J = 7.4 Hz). MS (m/z): 442 (M+2), 440 (M+),

6b: yield, 25%. mp 144°C. ^1H NMR (CDCl_3 , 300 Hz) δ 7.58 (1H, d, J = 2.3 Hz), 7.56 (1H, d, J = 8.8 Hz), 7.29 (1H, dd, J = 2.3 and 8.8 Hz), 4.14 (1H, m), 2.73 (1H, m), 1.32 (6H, d, J = 6.9 Hz), 1.26 (6H, d, J = 7.6 Hz). MS (m/z): 314, 342, 344, 390, 412 (M+), 414 (M+2).

6c: yield, 25.8 %. mp 178°C. ^1H NMR (CDCl_3 , 300 Hz) δ 7.57 (1H, d, J = 2.3 Hz), 7.56 (1H, d, J = 8.6 Hz), 7.29 (1H, dd, J = 2.3 and 8.6 Hz), 4.13 (1H, m), 2.53 (2H, t, J = 7.4 Hz), 1.78 (2H, m), 1.26 (6H, d, J = 6.6 Hz), 1.04 (3H, t, J = 7.3 Hz). MS (m/z): 314, 342, 344, 390, 412 (M+), 414 (M+2).