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In vitro antiprotozoal and cytotoxic activity of ethnopharmacologically selected Guinean plants

Reference:

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Table 1: *In vitro* antiprotozoal and cytotoxic activity of plant extracts

Plant name	Plant part (solvent)	Antiprotozoal activity (IC ₅₀ , µg/mL)				Cytotoxicity (CC ₅₀ , µg/mL)	Selectivity index			
		Tbb	T.cruzi	L.Inf	Pf-K1		MRC-5 / Tbb	MRC-5 / T.cruzi	MRC-5 / L.inf	MRC-5 / Pf-K1
<i>Albizia zygia</i> (DC.) J.F.Macbr.	Sb (EtOH 70%)	22.4	>64.0	22.4	18.1	>64.0	>2.9	Nd	>2.9	>3.5
<i>Alchornea cordifolia</i> (Schumach. & Thonn.) Müll. Arg.	Sb (MeOH)	8.5	11.3	32.5	9.5	>64.0	>7.5	>5.7	>2.0	>6.7
<i>Alchornea cordifolia</i>	Sb (H ₂ O)	>64.0	>64.0	>64.0	11.0	>64.0	Nd	Nd	Nd	>5.8
<i>Alchornea cordifolia</i>	L (MeOH)	8.6	9.6	32.5	9.3	>64.0	>7.5	>6.7	>2.0	>6.9
<i>Alchornea cordifolia</i>	Sb (Hexane)	32.2	27.9	>64.0	>64.0	>64.0	>2.0	>2.3	Nd	Nd
<i>Alchornea cordifolia</i>	L (Hexane)	8.3	25.8	38.0	25.9	>64.0	>7.7	>2.5	>1.7	>2.5
<i>Azadirachta indica</i> A. Juss.	L (MeOH)	8.2	20.7	>64.0	18.4	34.3	4.2	1.6	<0.5	1.9
<i>Azadirachta indica</i>	L (H ₂ O)	>64.0	>64.0	>64.0	>64.0	>64.0	Nd	Nd	Nd	Nd
<i>Azadirachta indica</i>	L (CHCl ₃)	20.2	40.0	32.5	>64.0	>64.0	>3.2	>1.6	>2.0	Nd
<i>Bridelia ferruginea</i> Benth.	L (EtOH 70%)	23.6	1.7	20.7	>64.0	13.0	0.5	7.5	0.6	<0.2
<i>Carica papaya</i> L.	L (MeOH)	8.2	8.2	32.5	11.4	32.2	3.9	3.9	1.0	2.8
<i>Carica papaya</i>	Rb (MeOH)	30.1	33.8	32.5	43.3	>64.0	>2.1	>1.9	>2.0	>1.5
<i>Cassia sieberiana</i> DC.	Sb (EtOH 70%)	19.4	11.4	>64.0	46.1	38.0	2.0	3.3	<0.6	0.8
<i>Cleistopholis patens</i> Engl. & Diels.	Sb (EtOH 70%)	11.4	22.8	20.7	29.1	23.3	2.0	1.0	1.1	0.8
<i>Cochlospermum tinctorium</i> A. Rich.	Rb (CHCl ₃)	Nt	Nt	Nt	17.1	>64.0	-	-	-	>3.7
<i>Combretum glutinosum</i> Perr.	L (MeOH)	26.5	23.7	>64.0	21.8	>64.0	>2.4	>2.7	Nd	>2.9
<i>Combretum glutinosum</i>	L (CHCl ₃)	2.9	2.2	20.7	20.2	20.5	7.0	9.4	1.0	1.0
<i>Diospyros mespiliformis</i> Hochst.	L (EtOH 70%)	25.2	25.8	>64.0	24.9	>64.0	>2.5	>2.5	Nd	>2.6

<i>Erythrina senegalensis</i> DC.	L (EtOH 70%)	21.0	20.5	>64.0	29.7	>64.0	>3.0	>3.1	Nd	>2.1
<i>Ficus</i> sp	Sb (Hexane)	8.1	26.0	32.5	46.6	35.2	4.4	1.4	1.1	0.8
<i>Ficus</i> sp	Sb (MeOH)	39.8	>64.0	32.5	>64.0	>64.0	>1.6	Nd	>2.0	Nd
<i>Ficus vallis-choudae</i> Del.	Sb (EtOH 70%)	23.7	19.2	20.7	16.3	23.2	1.0	1.2	1.1	1.4
<i>Grewia villosa</i> Willd.	L (EtOH 70%)	24.0	21.8	>64.0	34.00	>64.0	>2.7	>2.9	Nd	>1.9
<i>Guiera senegalensis</i> J.F.Gmel.	L (EtOH 70%)	2.1	2.00	20.7	23.0	21.2	9.9	10.7	1.0	0.9
<i>Hymenocardia acida</i> Tul.	L (Hexane)	8.1	8.2	32.5	33.1	32.2	4.0	3.9	1.0	1.0
<i>Hymenocardia acida</i>	Sb (MeOH)	8.6	>64.0	32.5	>64.0	55.2	6.5	<0.9	1.7	<0.9
<i>Hymenocardia acida</i>	Sb (H ₂ O)	37.3	>64.0	>64.0	11.0	55.2	1.5	<0.9	<0.9	5.0
<i>Hymenocardia acida</i>	Sb (Hexane)	32.2	35.5	>64.0	>64.0	>64.0	>2.0	>1.8	Nd	Nd
<i>Hymenocardia acida</i>	L (MeOH)	>64.0	>64.0	>64.0	>64.0	>64.0	Nd	Nd	Nd	Nd
<i>Lantana camara</i> L.	L (MeOH)	8.2	7.9	32.5	24.4	18.2	2.2	2.3	0.6	0.7
<i>Lawsonia inermis</i> L.	L (MeOH)	8.3	31.1	32.5	23.4	41.9	5.0	1.3	1.3	1.8
<i>Margaritaria discoidea</i> (Baill.) Webster	L (MeOH)	32.9	37.1	>64.0	>64.0	>64.0	>1.9	>1.7	Nd	Nd
<i>Margaritaria discoidea</i>	L (CHCl ₃)	2.0	32.7	>64.0	>64.0	>64.0	>31.8	>1.9	Nd	Nd
<i>Markhamia tomentosa</i> (Benth.) K. Schum.	L (EtOH 70%)	24.0	26.1	>64.0	27.5	>64.0	>27	>2.4	Nd	>2.3
<i>Mezoneuron benthamianum</i> Baill.	L (MeOH)	30.1	35.3	32.5	5.8	>64.0	>2.1	>1.8	>2.0	>11.0
<i>Morinda geminata</i> DC.	Rb (EtOH 70%)	21.0	25.8	>64.0	17.9	22.4	1.1	0.9	<0.3	1.2
<i>Newbouldia laevis</i> (P. Beauv.) Seem.	Rb (MeOH)	>64.0	8.4	32.5	9.1	15.3	<0.2	1.8	0.5	1.7
<i>Paullinia pinnata</i> L.	L (EtOH 70%)	22.4	14.5	>64.0	17.3	>64.0	>29	>4.4	Nd	>3.7
<i>Pavetta</i> sp	Sb (alkaloids, CHCl ₃)	1.8	33.5	20.3	34.3	>64.0	>34.8	>1.9	>3.1	>1.9
<i>Pavetta crassipes</i> K.Schum.	L (CHCl ₃)	2.0	2.2	20.3	31.4	8.9	4.5	4.1	0.4	03

<i>Pavetta crassipes</i>	L (alkaloids. CHCl ₃)	34.0	20.4	>64.0	4.9	>64.0	>1.9	>3.1	Nd	>13.0
<i>Phyllanthus niruri</i> L.	Wp (CHCl ₃)	1.8	33.5	32.5	>64.0	>64.0	>34.8	>1.9	>2.0	Nd
<i>Phyllanthus niruri</i>	Wp (MeOH)	2.1	59.2	50.8	>64.0	>64.0	>30.6	>1.1	>1.3	Nd
<i>Phyllanthus amarus</i> Schumach.	Wp (CHCl ₃)	7.2	37.5	32.5	48.2	>64.0	>8.9	>1.7	>2.0	>1.3
<i>Phyllanthus amarus</i>	Wp (MeOH)	13.5	40.6	32.5	42.3	>64.0	>4.7	>1.6	>2.0	>1.5
<i>Piliostigma thonningii</i> (Schumach.) Milne- Redhead	L (EtOH 70%)	29.9	>64.0	>64.0	33.6	>64.0	>2.1	Nd	Nd	>1.9
<i>Rhaphiostylis beninensis</i> (Hook f.) Planch.	L (MeOH)	>64.0	46.5	32.5	>64.0	>64.0	Nd	>14	>2.0	Nd
<i>Pseudospondias</i> <i>microcarpa</i> Engl.	Sb (MeOH)	>64.0	34.3	>64.0	>64.0	>64.0	Nd	>1.9	Nd	Nd
<i>Spondias mombin</i> L.	L (Hexane)	10.9	22.2	32.2	24.2	24.2	2.2	1.1	0.7	1.0
<i>Spondias mombin</i>	Sb (Hexane)	12.2	29.5	>64.0	>64.0	>64.0	>5.2	>2.2	Nd	Nd
<i>Spondias mombin</i>	L (MeOH)	22.0	31.1	>64.0	2.8	>64.0	>2.9	>2.0	Nd	>23.0
<i>Spondias mombin</i>	Sb (MeOH)	8.5	33.2	>64.0	34.8	>64.00	>7.5	>1.9	Nd	>1.8
<i>Spondias mombin</i>	Sb (H ₂ O)	2.3	35.8	>64.0	59.5	>64.00	>27.2	>1.8	Nd	>1.1
<i>Strophanthus hispidus</i> DC.	Rb (MeOH)	>64.0	>64.0	>64.0	>64.0	>64.0	Nd	Nd	Nd	Nd
<i>Terminalia albida</i> Sc. Elliot	L (EtOH 70%)	21.0	20.5	20.7	29.7	>64.0	>3.0	>3.1	>3.1	>2.1
<i>Terminalia albida</i>	Sb (MeOH)	35.5	>64.0	32.5	0.6	>64.0	>1.8	Nd	>2.0	>100.0
<i>Terminalia macroptera</i> Guill.	Rb (EtOH 70%)	2.7	20.2	20.7	6.8	>64.0	>23.3	>3.2	>3.1	>9.3
<i>Tetracera alnifolia</i> Willd.	L (CHCl ₃)	20.2	40.0	32.5	>64.0	>64.0	>3.2	>1.6	>2.0	Nd
<i>Tetracera alnifolia</i>	L (MeOH)	28.1	>64.0	8.1	>64.0	>64.0	>2.3	Nd	>7.8	Nd
<i>Tetracera alnifolia</i>	L (H ₂ O)	>64.0	>64.0	>64.0	>64.0	>64.0	Nd	Nd	Nd	Nd
<i>Trichilia emetica</i> Vahl.	Sb (EtOH 70%)	24.8	22.8	>64.0	15.5	>64.0	>2.6	>2.8	Nd	>4.1
<i>Uapaca togoensis</i> Pax.	Sb (MeOH)	35.5	>64.0	32.5	>64.0	>64.0	>1.8	Nd	>2.0	Nd
<i>Uapaca togoensis</i>	Sb (CHCl ₃)	>64.0	>64.0	>64.0	>64.0	>64.0	Nd	Nd	Nd	Nd

<i>Vismia guineensis</i> (L.) Choisy	L (CHCl ₃)	20.7	25.1	20.7	20.7	50.0	2.4	2.0	2.4	2.4
<i>Vismia guineensis</i>	L (MeOH)	2.05	6.80	20.72	9.16	14.24	6.94	2.09	0.68	1.55
<i>Vismia guineensis</i>	L (H ₂ O)	26.1	>64.0	>64.0	46.1	35.5	1.4	<0.5	<0.5	0.8
<i>Vismia guineensis</i>	Sb (CHCl ₃)	15.2	2.3	20.7	1.9	11.9	0.8	5.2	0.6	6.2
<i>Vismia guineensis</i>	Sb (MeOH)	6.7	2.1	20.7	3.0	8.6	1.3	4.0	0.4	2.8
<i>Vismia guineensis</i>	Sb (H ₂ O)	28.0	23.5	20.7	56.2	>64.0	>2.3	>2.7	>3.1	>1.1
<i>Vismia guineensis</i>	Rb (CHCl ₃)	2.1	2.0	20.7	1.9	5.2	2.4	2.5	0.2	2.6
<i>Vismia guineensis</i>	Rb (MeOH)	2.4	2.3	20.7	1.8	16.4	6.8	7.1	0.8	9.0
<i>Vismia guineensis</i>	Rb (H ₂ O)	26.5	23.1	20.7	>64.0	31.7	1.2	1.4	1.5	<0.5
<i>Ximenia americana</i> L.	Sb (MeOH)	37.3	32.3	32.5	>64.0	>64.0	>1.7	>2.0	>2.0	Nd
<i>Zanthoxylum zanthoxyloides</i> (Lam.) Zepernick & Timber	Rb (MeOH)	38.0	22.2	>64.0	>64.0	>64.0	1.7	2.9	Nd	Nd
Chloroquine					0.047 µM					
Suramin		0.035 µM								
Benznidazol			2.0 µM							
Miltefosine				6.1 µM						
Tamoxifen						11.0 µM				

Legend: Nd : not determined ; Nt : not tested. Tbb: *Trypanosoma brucei brucei*. T.cruzi: *Trypanosoma cruzi*. L.inf : *Leishmania infantum* Pf: *Plasmodium falciparum*. L: Leaves Rb: Root bark. Sb: Stem bark. Wp: Whole plant.