

Biological Activities for Extracts of Andiroba (*Carapa guianensis*)

Part -Origin	Activity Tested For	Type Extract	Test Model	Dosage	Result	Notes/Organism tested	Ref #
Bark Malaysia	Toxicity Assessment (quantitative)	MEOH-H2O (1:1) Ext	IP Mouse	LD50=750.0 mg/kg			A01890
Flowers Malaysia	Toxicity Assessment (quantitative)	MEOH-H2O (1:1) Ext	IP Mouse	LD50=750.0 mg/kg			A01890
Leaf Malaysia	Toxicity Assessment (quantitative)	MEOH-H2O (1:1) Ext	IP Mouse	LD50=46.0 mg/kg			A01890
Seed Malaysia	Toxicity Assessment (quantitative)	MEOH-H2O (1:1) Ext	IP Mouse	LD50=>1.0 gm/kg			A01890
Bark Malaysia	Antibacterial Activity	MEOH-H2O (1:1) Ext	Agar Plate	Not Stated	Active	<i>Proteus vulgaris</i>	A01890
Not Stated Heartwood	Antifungal Activity	Hot H2O Ext	Agar Plate	Not Stated	Active	<i>Lenzites trabea</i>	A00835
Not Stated Heartwood	Antifungal Activity	Hot H2O Ext	Agar Plate	Not Stated	Active	<i>Poria microspora</i>	A00835
Leaf Puerto Rico	Insecticide Activity	Plant	Not Stated	Not Stated	Inactive	<i>Serotoma ruficornis</i> adults (less than 40.0% toxicity)	A06820
Leaf Puerto Rico	Larvicidal Activity	Plant	Not Stated	Not Stated	Inactive	<i>Diaphania hyalinata</i> larvae <i>Laphygma frugiperda</i> larvae <i>Plutella maculipennis</i> larvae (less than 40.0% toxicity.)	A06820
Seed Oil Brazil	Cytotoxic Activity	Seed Oil	Not Stated	Not Stated	Active	Uterine cervical neoplasia.	BR1012
Leaf Malaysia	Antitumor Activity	MEOH-H2O (1:1) Ext	IP Rat	1.0 gm/kg	Equivocal	Sarcoma(Yoshida asc).	A01890
Bark Malaysia	Antitumor Activity	MEOH-H2O (1:1) Ext	IP Rat	1.0 gm/kg	Equivocal	Sarcoma(Yoshida asc).	A01890
Flowers Malaysia	Antitumor Activity	MEOH-H2O (1:1) Ext	IP Rat	1.0 gm/kg	Equivocal	Sarcoma(Yoshida asc).	A01890
Seed Malaysia	Antitumor Activity	MEOH-H2O (1:1) Ext	IP Rat	1.0 gm/kg	Equivocal	Sarcoma (Yoshida asc).	A01890

GI = Gastric Intubation IG = Intra gastric IP = Intraperitoneally IV = Intravenously SC = Subcutaneously IM = Intramuscular

Part -Origin	Activity Tested For	Type Extract	Test Model	Dosage	Result	Notes/Organism tested	Ref #
Cortex Brazil	Anticrustacean Activity	H2O Ext	Not Stated	200.0 mg/liter	Weak Activity	<i>Artemia salina</i> larvae assay. System is intended to predict for antitumor activity.	K20709
Seed Oil Brazil	Anticrustacean Activity	Seed Oil	Not Stated	LC50=42.3 mg/liter	Active	<i>Artemia salina</i> larvae assay. System is intended to predict for antitumor activity.	K20709
Cortex Brazil	Glycosidase Inhibition	H2O Ext	Not Stated	10.0 mcg	Inactive		K20709
Seed Oil France	Adipocyte Differentiation Inhibition	Seed Oil	In vitro	0.01-100%	Active	Inhibits the differentiation of preadipocyte into adipocyte, thereby preventing cellulite.	BR1004
Seed Oil France	Glucose-6-phosphate dehydrogenase Inhibition	Seed Oil	In vitro	Not Stated	Active	Glucose-6-phosphate dehydrogenase is a key enzyme in differentiation of preadipocytes to adipocytes.	BR1004

Biological Activities for Compounds of Andiroba (*Carapa guianensis*)

Compound Tested	Activity Tested For	Test Model	Dosage	Result	Notes/Organism tested	Ref #
Epoxyazadiradione	Cytotoxic Activity	In vitro	IC50=27 microM	Active	N1E-115 neuroblastoma (mouse) cell line. 143B.TK-osteosarcoma (human) cell line. Sf9 (insect) cell line.	BR1005
Gedunin	Insect Growth Inhibitor	Larvae	LD50=10.78 ppm	Active	<i>S. frugiperda</i> adults and neonate larvae.	BR1007
Gedunin	Insect Growth Inhibitor	Larvae	LC50=39 ppm	Active	Caused mortality, reduced pupal weights and adult emergence of <i>Spodoptera frugiperda</i> .	BR1008
Gedunin	Antimalarial Activity	In vitro In vivo (mouse)	Not Stated	Active Equivocal	<i>Plasmodium falciparum</i> <i>Plasmodium berghei</i>	BR1006
Gedunin	Antimalarial Activity	In vitro	IC50=1.25-9.63 mcg/ml	Active	<i>Plasmodium falciparum</i> . Additive effect exhibited when combined with chloroquine.	BR1009

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Compound Tested	Activity Tested For	Test Model	Dosage	Result	Notes/Organism tested	Ref #
Gedunin	Antimalarial Activity	In vitro	Not Stated	Active Weak Activity	<i>Plasmodium falciparum</i> chloroquine-sensitive. <i>Plasmodium falciparum</i> chloroquine-resistant.	BR1010
Gedunin	Antimalarial Activity	In vitro	IC50=1 microM	Active	Effect equivalent to quinine.	BR1011

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