

## Biological Activities for Extracts of Jatoba (*Hymenaea courbaril*)

Plant Part - Origin	Activity Tested For	Type Extract	Test Model	Dosage	Result	Notes/Organism tested	Ref #
Stembark Brazil	Uterine Stimulant Effect	H2O Ext	Rat(female)	Not stated	Inactive	Uterus(estrog).	A03531
Resin Not stated	Allergenic Activity	Resin	External Human Adult	Not stated	Equiv.		T15941
Not stated Brazil	Anti-inflammatory Activity	Not stated	Not stated	Not stated	Active	Inhibited 5-lipoxygenase.	AN1004
Bark Guatemala	Diuretic Activity	Decoction	Nasogastric Rat	1.0 gm/kg	Active		T15295
Leaf + Stem Panama	Antifungal Activity	MEOH Ext	Agar plate	100.0 mcg	Active	<i>Cladosporium cucumerinum</i>	K11142
Resin Surinam	Antifungal Activity	ETOH(95%)Ext	Agar plate	5.0 mg/ml	Active	<i>Aspergillus niger</i>	T14756
Leaf Brazil	Antifungal Activity	Resin	Not stated	3.0 mg/ml	Active	<i>Pestalotia subcultularis</i>	M07240
Leaf Mexico	Antifungal Activity	Resin	Not stated	3.0 mg/ml	Active	<i>Pestalotia subcultularis</i>	M07240
Leaf + Stem Panama	Antifungal Activity	CHCL3 Ext	Agar plate	100.0 mcg	Active	<i>Cladosporium cucumerinum</i>	K11142
Leaf + Stem Panama	Antifungal Activity	H2O Ext	Agar plate	100.0 mcg	Inactive	<i>Cladosporium cucumerinum</i>	K11142
Bark Panama	Antifungal Activity	CHCL Ext H2O Ext MEOH Ext	Agar plate	100.0 mcg	Inactive	<i>Cladosporium cucumerinum</i>	K11142
Bark Surinam	Antifungal Activity	ETOH(95%)Ext	Agar plate	50.0 mg/ml	Inactive	<i>Aspergillus niger</i>	T14756
Leaf + Stem Brazil	Antiyeast Activity	Not stated	Agar plate	100.0 mcg	Active	<i>Candida albicans</i>	AN1010
Leaf + Stem Panama	Antiyeast Activity	CHCL3 Ext	Agar plate	100.0 mcg	Active	<i>Candida albicans</i>	K11142
Bark Panama	Antiyeast Activity	CHCL3 Ext	Agar plate	100.0 mcg	Weak Activity	<i>Candida albicans</i>	K11142
Resin Surinam	Antiyeast Activity	ETOH(95%)Ext	Agar plate	50.0 mg/ml	Inactive	<i>Candida albicans</i>	T14756

Plant Part - Origin	Activity Tested For	Type Extract	Test Model	Dosage	Result	Notes/Organism tested	Ref #
Leaf + Stem Panama	Antiyeast Activity	H2O Ext MEOH Ext	Agar plate	100.0 mcg	Inactive	<i>Candida albicans</i>	K11142
Bark Surinam	Antiyeast Activity	ETOH(95%)Ext	Agar plate	50.0 mg/ml	Inactive	<i>Candida albicans</i>	T14756
Bark Panama	Antiyeast Activity	H2O Ext MEOH Ext	Agar plate	100.0 mcg	Inactive	<i>Candida albicans</i>	K11142
Stembark Guatemala	Antiyeast Activity	ETOH(60%)Ext	Agar plate	Not stated	Inactive	<i>Candida albicans</i>	M31296
Leaf + Stem Brazil	Antibacterial Activity	CHCl3 Ext	Agar plate	100 ug/ml	Active	<i>Klebsiella pneumoniae</i>	AN1010
Bark Surinam	Antibacterial Activity	ETOH(95%)Ext	Agar plate	50.0 mg/ml	Active	<i>Bacillus subtilis</i>	T14756
Bark Brazil	Antibacterial Activity	H2O Ext	Agar plate	4.2%	Active	<i>Bacillus cereus</i> <i>Staphylococcus aureus</i>	ZZ1002
Bark Surinam	Antibacterial Activity	ETOH(95%)Ext	Agar plate	50.0 mg/ml	Active	<i>Escherichia coli</i> <i>Staphylococcus aureus</i> <i>Pseudomonas aeruginosa</i>	T14756
Resin Surinam	Antibacterial Activity	ETOH(95%)Ext	Agar plate	50.0 mg/ml	Inactive	<i>Bacillus subtilis</i> <i>Escherichia coli</i> <i>Pseudomonas aeruginosa</i> <i>Staphylococcus aureus</i>	T14756
Bark Brazil	Molluscicidal Activity	Essential oil	Not stated	1-10 mg	Inactive	<i>Biomphalaria glabrata</i>	T07475
Bark Brazil	Molluscicidal Activity	ETOH(95%)Ext H2O Ext	Not stated	10000 ppm	Inactive	<i>Biomphalaria glabrata</i> <i>Biomphalaria straminea</i>	W02949
Seed Mexico	Hemagglutinin Activity	H2O Ext	Cow	Not stated	Inactive	RBC.	T00351
Seed Mexico	Hemagglutinin Activity	H2O Ext	Human Adult	Not stated	Inactive	RBC.	T00351
Seed Mexico	Hemagglutinin Activity	H2O Ext	Rabbit	Not stated	Inactive	RBC.	T00351
Seed Mexico	Trypsin Inhibition	H2O Ext	Not stated	Not stated	Active	16.57 trypsin units inhibited.	T00351

## Biological Activities for Compounds of Jatoba (*Hymenaea courbaril*)

Compound	Activity Tested For	Test Model	Dosage	Result	Notes/Organism tested	Ref #
(13R)-13-hydroxy-1(10), 14-ent-halimadien -18-oic acid	Cytotoxic Activity	Agar plate Cell culture	Not stated Not stated	Weak Activity Weak Activity	1138 mutant yeast strain. A2780 human ovarian cancer cell line.	AN1001
Astilbin	Hepatoprotective Effect	Rat	40 mg/kg	Active	In Cl(4)C-induced hepatotoxicity astilbin restored lipoperoxides and tissue prostanoids to basal levels. Hepatoprotective effect higher than that of vitamin E.	AN1008
Alpha-humulene	Antitumor Activity	Not stated	Not stated	Active		AN1015
Alpha-humulene	Antibacterial Activity	Not stated	Not stated	Active		AN1014
Beta-bisabolene	Abortifacient Effect	Not stated	Not stated	Active		ZZ1022
Beta-bisabolene	Antiviral Activity	Not stated	IC50=1,800 mcg	Active	<i>Rhinovirus</i>	AN1022
Beta-bisabolene	Antiulcer Activity	Not stated	IC57=100 mg/kg	Active		AN1023
Caryophyllene	Anticarcinogenic Activity	Not stated	MIC=1,600 ug/ml	Active		AN1019
Caryophyllene	Antitumor Activity	Not stated	Not stated	Active		AN1015
Caryophyllene	Antifungal Activity	Not stated	Not stated	Active	<i>Candida albicans</i>	ZZ1022
Caryophyllene	Antibacterial Activity	Not stated	Not stated	Active		AN1014
Caryophyllene	Antibacterial Activity	Not stated	Not stated	Active	<i>Staphylococcus Streptococci</i>	ZZ1022
Caryophyllene	Antifeedant Activity	Not stated	500 ppm	Active		AN1021
Caryophyllene	Anti-inflammatory Activity	Not stated	Not stated	Active		AN1016
Caryophyllene	Anti-inflammatory Activity	Not stated	IC50=100 uM	Active		AN1020

Compound	Activity Tested For	Test Model	Dosage	Result	Notes/Organism tested	Ref #
Caryophyllene	Antiedemic Activity	Not stated	Not Stated	Active		AN1020
Caryophyllene	Antiulcer Activity	Oral Rat	Not stated	Active	Inhibited gastric mucosal injury by ETOH and HCl.	AN1016
Caryophyllene	Anti-asthmatic Activity	Not stated	Not stated	Active		AN1018
Caryophyllene	Aldose-Reductase Inhibitory Activity	Not stated	Not stated	Active		ZZ1022
Caryophyllene	Antiacne Activity	Not stated	Not stated	Active		ZZ1022
Caryophyllene	Glutathione-S-transferase Induction	Mouse	Not stated	Active	(liver & small intestine)	AN1015
Caryophyllene	Sedative Effect	Not stated	Not stated	Active		ZZ1022
Copalic acid	Antimicrobial Activity	Agar Plate	MIC=<10 mcg/ml	Active	Gram-positive bacteria. <i>B. subtilis</i> <i>S. aureus</i> <i>S. epidermidis</i>	AN1017
Copalic acid	Anti-inflammatory Activity	Rat	Not stated	Active	vs. carrageenin-induced pedal edema. Reduced granuloma formation and vascular permeability to intracutaneous histamine.	AN1013
Copalic acid	Cytotoxic Activity	Cell Culture	IC50=>10 mcg/ml	Inactive	P-388 (lymphoid neoplasm). A-549 (human lung carcinoma). HT-29 (human colon carcinoma). MEL-28 (human melanoma).	AN1017
Delta-cadinene	Anticarcinogenic Activity	Not stated	MIC=800 mcg/ml	Active		AN1019
Delta-cadinene	Antibacterial Activity	Not stated	MIC=800 mcg/ml	Active		AN1019
Delta-cadinene	Antibacterial Activity	Not stated	Not stated	Active	<i>Streptococci</i>	ZZ1022
Delta-cadinene	Aldose-reductase Inhibitory Activity	Not stated	Not stated	Active		ZZ1022
Delta-cadinene	Antiacne Activity	Not stated	Not stated	Active		ZZ1022

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