

## Biological Activities for Extracts of Suma (*Pfaffia paniculata*)

Part - Origin	Activity Tested For	Type Extract	Test Model	Dosage	Result	Notes/Organism tested	Ref #
Root Brazil	Toxic Effect(general)	Root	Oral Human Adult	1-1.5 gm	Inactive	Daily dosing produced no side effects or toxicity.	T12915
Root Brazil	Toxic Effect (general)	Powdered Root	Oral Rat	50% of food ration	Inactive	No signs of toxicity noted after 30 days.	AM1003
Root Brazil	Toxic Effect (general)	ETOH (60%) Ext	SC Mouse	10.0 gm/kg	Active	100% mortality at this dose.	K18218
Root Brazil	Toxic Effect (general)	ETOH (20%) Ext	IP Mouse	5.0 gm/kg	Active	Animals experienced sedation, motor incoordination, piloerection and hypothermia.	K11098
Root Brazil	Allergenic Activity	Buffer	Intradermal Human Adult	Not stated	Active		M29212
Root Brazil	Irritant Activity	Buffer	Inhalation Human Adult	Not stated	Active	The patient experienced an asthmatic response after inhaling root powder.	M29212
Root Brazil	Irritant Activity	ETOH (60%) Ext	Injection Rat	0.5 ml	Inactive		K18218
Root Brazil	CNS Depressant Activity	ETOH (70%) Ext	SC Mouse	5.0 gm/kg	Weak Activity		K18218
Root Brazil	Vascular Permeability Decreased	ETOH (60%) Ext	SC Rat	1.0 gm/kg	Active	48.1% inhibition of dye leakage.	K18218
Root Brazil	Antiproliferative Activity	Root	IP Mouse Oral Mouse	750.0 mg/kg	Active  Active	vs. spontaneously occurring leukemia caused by endogenous recombinant murine leukemia viruses and; vs. thymic lymphoma	L16508
Root Brazil	Antitumor Activity	Pfaffoside fraction	Cell Culture	Not stated	Active	Pfaffosides D, E, and F inhibited the growth of cultured tumor cell melanoma (B-16)	N19875
Root Brazil	Antitumor Activity	Pfaffic Acid fraction	Cell culture	4 - 6 mcg / ml	Active	vs. HeLa cells and melanoma B-16. (180 mg of pfaffic acids were obtained from 18 kg dried roots)	T12915
Root Brazil	Antitumor Activity	Pfaffic Acid fraction	Cell Culture	.05 mg / ml	Strong Activity	vs. melanoma B-16, HeLa (S-3), and Lewis lung carcinoma cells	N13347

Part - Origin	Activity Tested For	Type Extract	Test Model	Dosage	Result	Notes/Organism tested	Ref #
Root Brazil	Antitumor Activity	Pfaffoside fraction	Oral Mouse	Not stated	Active	vs. ascites tumors	T11992
Root Brazil	Antitumor Activity	Saponin fraction	Oral Mouse	100.0 mg/kg 200.0 mg/kg 400.0 mg/kg	Active Active Active	Abdominal cancer cells.	T13148
Root Brazil	Immunostimulant Activity	Favonoid fractions	Broth Culture	0.1 ml	Strong Activity	Strong macrophage activating activity of 100 - 200% over controls.	AM1002
Root Brazil	Analgesic Activity	ETOH(20%) Ext	IP Mouse	0.5 gm/kg	Active	vs. acetic acid-induced writhing.	K11098
Root Brazil	Analgesic Activity	ETOH(60%) Ext	IP Rat	0.5 gm/kg	Active	34% inhibition. vs.acetic acid-induced writhing.	K18218
Root Brazil	Analgesic Activity	ETOH(60%) Ext	SC Rat	2.0 gm/kg	Inactive	vs.hot plate method.	K18218
Root Brazil	Antiinflammatory Activity	ETOH(20%) Ext	IP Mouse	0.15 gm/kg	Active	vs. carrageenan-induced pedal edema.	K11098
Root Brazil	Antiinflammatory Activity	ETOH(60%) Ext	IP Rat	0.5 gm/kg	Active	vs. carrageenan-induced pedal edema.	K18218
Root Brazil	Antisickling Activity	Powder	Cell Culture	0.4 mg/ml	Active	RBC vs. sickle cell anemia	L13666
Root Brazil	Anti-Sickle Cell Anemia Activity	Root powder	Human (double blind placebo study)	1000 mg TID	Active	In 15 sickle cell anemia patients taking compound for 3 months (HB) levelst increased to 8-9 g/dL, hematocrit (HT) levels increased, and the number of peripheral erythrocytes (fetal hemoglobin) decreased, indicating desickling. Reduction of other symptoms reported. Results statistically higher than other 15 patients on placebo with no improve-ments in signs or symptoms.	AM1003
Root Brazil	Aphrodisiac Activity	Fluid Ext	Intragastric Rat (Male)	1.0 ml/kg	Active	Improved copulatory performance of sexually sluggish/impotent rat.	L05439
Root Brazil	Ejaculation Stimulant	Fluid Ext	Intragastric Rat (Male)	1.0 ml/kg	Active	Test on normal and impotent rats in all cases.	L05439
Root Brazil	Ejaculation Stimulant	Fluid Ext	Intragastric Rat (Male)	1.0 ml/kg	Active	Coadministration with other compounds.	L05439
Root Brazil	Keratinocyte Differentiation Activity	Ecdysteroid fractions	Cell Culture (Human skin)	250 .mu.g/ml	Active	Normalized and increased keratinocyte differentiation.	AM1004

Part - Origin	Activity Tested For	Type Extract	Test Model	Dosage	Result	Notes/Organism tested	Ref #
Root Brazil	Multiple Effects	Favonoid fractions	Oral Mice	Various	Active	Various tests performed indicating extracts were immunoenhancement, antiallergic, psychotropic, and/or tonic activities. Tests performed on suma root fractions and multi-drug compound of suma, guarana, and indigo.	AM1002

Return to the [Suma Plant Database File](#)

© Copyrighted 2004 Raintree Nutrition, Inc. Carson City, Nevada 89701. All rights reserved.  
Please read the [Conditions of Use](#) and [Copyright Statement](#) for this web page and website.