

## Biological Activities for Extracts of Tayuya (*Cayaponia tayuya*)

Part - Origin	Activity Tested For	Type Extract	Test Model	Dosage	Result	Notes/Organism tested	Ref #
Root Brazil	Toxicity Assessment (quantitative)	CHCl3 Ext	Oral Mouse	LD50=375.0 mg/kg	Not Stated		M24654
Root Brazil	Toxicity Assessment (quantitative)	CHCl3 Ext	IP Mouse	LD50=67.0 mg/kg	Not Stated		M24654
Root Brazil	Toxicity Assessment (quantitative)	MEOH Ext	Oral Mouse	LD50=>2000 mg/kg	Not Stated		M24654
Root Brazil	Toxicity Assessment (quantitative)	MEOH Ext	IP Mouse	LD50=500.0 mg/kg	Not Stated		M24654
Root Brazil	Analgesic Activity	Infusion	IG Mouse	1.0 gm/kg	Active	vs. acetic acid-induced writhing.	J12450
Root Brazil	Anti-inflammatory Activity	CHCl3 Ext	Oral Mouse	123.0 mg/kg	Weak Activity	vs. carrageenan-induced pedal edema.	M24654
Root Brazil	Anti-inflammatory Activity	CHCl3 Ext	IP Mouse	28.0 mg/kg	Active	vs. carrageenan-induced pedal edema.	M24654
Root Brazil	Anti-inflammatory Activity	Infusion	IG Mouse	1.0 gm/kg	Equivocal	Dye diffusion assay.	J12450
Root Brazil	Anti-inflammatory Activity	MEOH Ext	Oral Mouse	ED50=>2000 mg/kg	Inactive	vs. carrageenan-induced pedal edema.	M24654
Root Brazil	Anti-inflammatory Activity	MEOH Ext	IP Mouse	ED50=235.0 mg/kg	Weak Activity	vs. carrageenan-induced pedal edema.	M24654
Plant Brazil	Antibacterial Activity	Not Stated	Not Stated	Not Stated	Inactive	<i>Escherichia coli</i>	T15630
Plant Brazil	Antibacterial Activity	Not Stated	Not Stated	Not Stated	Inactive Inactive Inactive	<i>Bacillus subtilis</i> <i>Staphylococcus aureus</i> <i>Streptococcus faecalis</i>	T15630
Plant Brazil	Antifungal Activity	Not Stated	Not Stated	Not Stated	Inactive	<i>Neurospora crassa</i>	T15630
Plant Brazil	Antimycobacterial Activity	Not Stated	Not Stated	Not Stated	Inactive	<i>Mycobacterium smegmatis</i>	T15630
Plant Brazil	Antiyeast Activity	Not Stated	Not Stated	Not Stated	Inactive	<i>Candida albicans</i>	T15630

GI = Gastric Intubation IG = Intragastric IP = Intraperitoneally IV = Intravenously PO = Oral SC = Subcutaneously IM = Intramuscular

## Biological Activities for Compounds of Tayuya (*Cayaponia tayuya*)

Compound Tested	Activity Tested For	Test Model	Dosage	Result	Notes/Organism tested	Ref #
Cayaponosides B, B3, D, D3b and C2	Antiviral Activity	In vitro	Not Stated	Active	Inhibited <i>Epstein-Barr virus</i> activation induced by tumor promoter TPA.	K21645
Cayaponoside B and C2	Antitumor promoting Activity	Mouse	Not Stated	Active	Inhibited skin tumor promotion in a two-stage carcinogenesis test.	K21645
Cucurbitacin R	Adaptogen Effect	Adrenal cortex	Not Stated	Active	Prevented stress-induced alterations of eicosanoids in blood, stimulated the adrenal cortex to adapt to stress, increased corticosteroid secretion which protected against the defense system becoming hyperactive.	BH1002
Cucurbitacin R	Adaptogen Effect	Rat Adrenal cortex	Not Stated	Active	Stimulated the release of arachidonic acid leading to increased synthesis of 5-HETE and 5-HPETE, a modulator of ACTH-induced corticosteroid secretion.	BH1003
Cucurbitacin R	Adaptogen Effect	Rat leukocyte	Not Stated	Active	Prevented changes caused by stress.	BH1004
Cucurbitacin R	Hypothalamic-Hypophysis-Adrenal cortex Modulator	Rat Adrenal cortex	Not Stated	Active	Regulated steroidogenesis by influencing the activity of prostaglandin G2-prostaglandin E2 isomerase in rats exposed to immobilization stress.	BH1005
Cucurbitacins	Antiproliferative Activity	HeLa cells	Not Stated	Active	Inhibition of HeLa S3 cell proliferation.	BH1006
Cucurbitacins	Radioprotective Activity	HeLa cells	Not Stated	Active	Inhibited the incorporation of radioprotective precursors into DNA, RNA and protein.	BH1006
Isoorientin	Antioxidant Activity	In vitro	Not Stated	Active		BH1001
Orientin	Toxicity (general)	IP Mice	100 mg/kg	Inactive		BH1009
Orientin	Antiviral Activity	In vitro	Not Stated	Active	<i>Parainfluenza type 3 virus</i>	BH1007
Orientin	Antioxidant Activity	In vitro	Not Stated	Active		BH1001
Orientin	Antioxidant Activity	In vitro	Not Stated	Active		BH1008

GI = Gastric Intubation IG = Intragastric IP = Intraperitoneally IV = Intravenously PO = Oral SC = Subcutaneously IM = Intramuscular

Compound Tested	Activity Tested For	Test Model	Dosage	Result	Notes/Organism tested	Ref #
Orientin	Radioprotective Activity	Cell Culture	17.5 microM	Active	Cells pre-treated with orientin 30 minutes before exposure to gamma-radiation had a reduced micronucleus count by 51-67%.	BH1008
Orientin	Radioprotective Activity	IP Mice	50 mcg/kg	Active	Orientin given 30 minutes before exposure to gamma-radiation. Orientin protected against death from gastrointestinal syndrome as well as bone marrow syndrome.	BH1009
Vitexin	Antiviral Activity	In vitro	Not Stated	Active	<i>Parainfluenza type 3 virus</i>	BH1007
Vitexin	Hepatoprotective Activity	Cell Culture	IC50=40.1 microM	Active	Inhibited TNF-alpha-induced cell death (mouse hepatocytes).	BH1010

Return to the [Tayuya 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.

GI = Gastric Intubation IG = Intragastric IP = Intraperitoneally IV = Intravenously PO = Oral SC = Subcutaneously IM = Intramuscular

© Copyrighted 2004. Raintree Nutrition, Inc. Carson City, NV 89701. All Rights Reserved. [www.rain-tree.com](http://www.rain-tree.com)