



VASSOURINHA POWDER

1 pound (16 oz)

Retail price: \$28.00

Description: Chemical screening of vassourinha has shown that it is a source of novel phytochemicals in the flavone and terpene classification. Many of vassourinha's active biological properties are attributed to these phytochemicals.* The main chemicals being studied are scopadulcic acids A and B, scopadiol, scopadulciol, scopadulin, scoparic acids A, B, and C, and betulinic acid. For more complete information on this unique rainforest plant, please see the Raintree Nutrition internet website and the online [Tropical Plant Database](#).

Traditional Uses:* for menstrual problems (pain, cramps, premenstrual syndrome [PMS], and to promote and normalize menstruation); for upper respiratory bacterial and viral infections; to relieve pain of all types (arthritis, migraines and headaches, stomach aches, muscle pain, etc.); to tone, balance, and strengthen heart function (and for mild hypertension); for venereal diseases and urinary tract infections

Ingredients: 100% pure vassourinha (*Scoparia dulcis*) whole herb (root, leaf, stem, flowers). No binders, fillers or additives are used. This product is non-irradiated and non-fumigated. It is a wild harvested product—grown naturally in the Brazilian Amazon without any pesticides or fertilizers.

Suggested Use: This plant is best prepared as an infusion (tea). Use one teaspoon of powder for each cup of water. Pour boiling water over herb in cup and allow to steep 10 minutes. Strain tea (or allow settled powder to remain in the bottom of cup) and drink warm. It is traditionally taken in 1 cup dosages, 1 or 2 times daily.

Contraindications:

- The traditional use as an abortive and/or childbirth aid warrants that vassourinha should not be taken during pregnancy.
- Vassourinha has shown in animal studies to lower blood sugar levels. This plant is probably contraindicated in people with hypoglycemia. Diabetics should monitor their blood sugar levels if they use vassourinha to monitor these possible effects.
- Avoid combining with antidepressants or barbiturates unless under the supervision of a qualified health care practitioner (see drug interactions below).

Drug Interactions: One human study documented that an ethanol extract of vassourinha inhibited radioligand binding to dopamine and serotonin. Another study reported that a water extract given intragastrically to rats potentiated the effects of barbiturates. As such, it is possible that vassourinha may enhance the effect of barbiturates and selective serotonin reuptake inhibitor antidepressants.

Clinical Documentation and Research:* This Raintree product has not been the subject of any clinical research. Available third-party published research on vassourinha can be found at the Raintree website and at [PubMed](#). A partial listing of the research on vassourinha is shown below:

Pain Relieving, Antispasmodic, & Anti-inflammatory Actions:

Phan, M. G., et al. "Chemical and biological evaluation on scopadulane-type diterpenoids from *Scoparia dulcis* of Vietnamese origin." *Chem. Pharm. Bull.* 2006 Apr; 54(4): 546-9.

Ahmed, M., et al. "Analgesic, diuretic, and anti-inflammatory principle from *Scoparia dulcis*." *Pharmazie.* 2001; 56(8): 657-60.

Freire, S. M., et al. "Sympathomimetic effects of *Scoparia dulcis* L. and catecholamines isolated from plant extracts." *J. Pharm. Pharmacol.* 1996; 48(6): 624-8.

Freire, S., et al. "Analgesic and anti-inflammatory properties of *Scoparia dulcis* L. extracts and glutinol in rodents." *Phytother. Res.* 1993; 7: 408-14.

Freire, S., et al. "Analgesic activity of a triterpene isolated from *Scoparia dulcis* (vassourinha)." *Mem. Inst. Oswaldo Cruz.* 1991; 86 (Suppl. II): 149-51.

Ahmed, M. "Diterpenoids from *Scoparia dulcis*." *Phytochemistry.* 1990; 29(9): 3035-37.

Dhawan, B. N., et al. "Screening of Indian plants for biological activity. VI." *Indian J. Exp. Biol.* 1977; 15: 208-219.

Cytotoxic & Anticancerous Actions:

- Kessler, J. H., et al. "Broad in vitro efficacy of plant-derived betulinic acid against cell lines derived from the most prevalent human cancer types." *Cancer Lett.* 2006 Dec 12;
- Mukherjee, R., et al. "Betulinic acid derivatives as anticancer agents: structure activity relationship." *Anticancer Agents Med. Chem.* 2006 May; 6(3): 271-9.
- Phan, M. G., et al. "Chemical and biological evaluation on scopadulane-type diterpenoids from *Scoparia dulcis* of Vietnamese origin." *Chem. Pharm. Bull.* 2006 Apr; 54(4): 546-9.
- Hayashi, K., et al. "The role of a HSV thymidine kinase stimulating substance, scopadulciol, in improving the efficacy of cancer gene therapy." *J. Gene Med.* 2006 Aug; 8(8): 1056-67.
- Kasperczyk, H., et al. "Betulinic acid as new activator of NF-kappaB: molecular mechanisms and implications for cancer therapy." *Oncogene.* 2005 Oct; 24(46): 6945-56.
- Fulda, S., et al. "Sensitization for anticancer drug-induced apoptosis by betulinic acid." *Neoplasia.* 2005; 7(2): 162-70.
- Garg, A. K., et al. "Chemosensitization and radiosensitization of tumors by plant polyphenols." *Antioxid. Redox. Signal.* 2005; 7(11-12): 1630-47.
- Wada, S., et al. "Betulinic acid and its derivatives, potent DNA topoisomerase II inhibitors, from the bark of *Bischofia javanica*." *Chem. Biodivers.* 2005 May; 2(5): 689-94.
- Hayashi, K., et al. "Evaluation of scopadulciol-related molecules for their stimulatory effect on the cytotoxicity of acyclovir and ganciclovir against Herpes simplex virus type 1 thymidine kinase gene-transfected HeLa cells." *Chem. Pharm. Bull.* 2004; 52(8): 1015-7.
- Ahsan, M., et al. "Cytotoxic diterpenes from *Scoparia dulcis*." *J. Nat. Prod.* 2003; 66(7): 958-61.
- Fulda, S., et al. "Betulinic acid induces apoptosis through a direct effect on mitochondria in neuroectodermal tumors." *Med. Pediatr. Oncol.* 2000; 35(6): 616-18.
- Fulda, S., et al. "Betulinic acid: A new cytotoxic agent against malignant brain-tumor cells." *Int. J. Cancer* 1999; 82(3): 435-41.
- Noda, Y., et al. "Enhanced cytotoxicity of some triterpenes toward leukemia L1210 cells cultured in low pH media; possibility of a new mode of cell killing." *Chem. Pharm. Bull.* 1997; 45(10): 1665-70.
- Arisawa, M. "Cell growth inhibition of KB cells by plant extracts." *Natural Med.* 1994; 48(4): 338-47.
- Nishino, H. "Antitumor-promoting activity of scopadulcic acid B, isolated from the medicinal plant *Scoparia dulcis* L." *Oncology.* 1993; 50(2): 100-3.
- Hayashi, T., et al. "Scoparic acid A, a beta-glucuronidase inhibitor from *Scoparia dulcis*." *J. Nat. Prod.* 1992; 55(12): 1748
- Hayashi, R. J., et al. "A cytotoxic flavone from *Scoparia dulcis* L." *Chem. Pharm. Bull.* 1988; 36: 4849-51.

Antimicrobial & Antimalarial Actions:

- Latha, M., et al. "Phytochemical and antimicrobial study of an antidiabetic plant: *Scoparia dulcis* L." *J. Med. Food.* 2006 Fall; 9(3): 391-4.
- Phan, M. G., et al. "Chemical and biological evaluation on scopadulane-type diterpenoids from *Scoparia dulcis* of Vietnamese origin." *Chem. Pharm. Bull.* 2006 Apr; 54(4): 546-9.
- Hayashi, K., et al. "Evaluation of scopadulciol-related molecules for their stimulatory effect on the cytotoxicity of acyclovir and ganciclovir against Herpes simplex virus type 1 thymidine kinase gene-transfected HeLa cells." *Chem. Pharm. Bull.* 2004 Aug; 52(8): 1015-7.
- Riel, M. A., et al. "Efficacy of scopadulcic acid A against *Plasmodium falciparum* in vitro." *J. Nat. Prod.* 2002; 65(4): 614-5.
- Kanamoto, T., et al. "Anti-human immunodeficiency virus activity of YK-FH312 (a betulinic acid derivative), a novel compound blocking viral maturation." *Antimicrob. Agents Chemother.* 2001; 45(4): 1225-30.
- Rahman, S. M., et al. "The first total synthesis of (+/-)-scopadulin, an antiviral aphidicolane diterpene." *Org. Lett.* 2001 Feb; 3(4): 619-21.
- Begum, S. A., et al. "Chemical and biological studies of *Scoparia dulcis* L. plant extracts." *J. Bangladesh Acad. Sci.* 2000; 24(2): 141-148.
- Hayashi, T., et al. "Antiviral agents of plant origin. II. Antiviral activity of scopadulcic acid B derivatives." *Chem. Pharm. Bull.* 1990; 38(1): 239-42.
- Hayashi, T. Et al. "Antiviral agents of plant origin. III. Scopadulin, a novel tetracyclic diterpene from *Scoparia dulcis* L." *Chem. Pharm. Bull.* 1990; 38(4): 945-47.
- Hayashi, K., et al. "In vitro and in vivo antiviral activity of scopadulcic acid B from *Scoparia dulcis*, Scrophulariaceae, against Herpes simplex virus type 1." *Antiviral Res.* 1988; 9(6): 345-54.
- Laurens, A., et al. "Antimicrobial activity of some medicinal species of Dakar markets." *Pharmazie.* 1985; 40(7): 482.

Anti-ulcer & Antacid Actions:

- Hayashi, T., et al. "Scopadulciol, an inhibitor of gastric H⁺, K⁺-atpase from *Scoparia dulcis*, and its structure-activity relationships." *J. Nat. Prod.* 1991; 54(3): 802-9.
- Asano, S., et al. "Reversible inhibitions of gastric H⁺,K⁽⁺⁾-ATPase by scopadulcic acid B and diacetyl scopadol. New biochemical tools of H⁺,K⁽⁺⁾-ATPase." *J. Biol. Chem.* 1990 Dec; 265(36): 22167-73.
- Hayashi, T., et al. "Scopadulcic acid B, a new tetracyclic diterpenoid from *Scoparia dulcis* L. Its structure, H⁺, K⁽⁺⁾-adenosine triphosphatase inhibitory activity and pharmacokinetic behaviour in rats." *Chem. Pharm. Bull.* 1990; 38(10):

2740-5.

Anti-neurodegenerative Actions:

Li, Y., et al. "Search for constituents with neurotrophic factor-potentiating activity from the medicinal plants of Paraguay and Thailand." *Yakugaku Zasshi*. 2004; 124(7): 417-24.
Li, Y., et al. "Acetylated flavonoid glycosides potentiating NGF action from *Scoparia dulcis*." *J. Nat. Prod.* 2004; 67(4): 725-7.

Antidiabetic & Anti-Cholesterol Actions:

Lans, C. A. "Ethnomedicines used in Trinidad and Tobago for urinary problems and diabetes mellitus." *J. Ethnobiol. Ethnomedicine*. 2006 Oct; 2: 45.
Pari, L., et al. "Antihyperlipidemic effect of *Scoparia dulcis* (sweet broomweed) in streptozotocin diabetic rats." *J. Med. Food*. 2006 Spring; 9(1): 102-7.
Pari, L., et al. "Antidiabetic effect of *Scoparia dulcis*: effect on lipid peroxidation in streptozotocin diabetes." *Gen. Physiol. Biophys.* 2005 Mar; 24(1): 13-26.
Latha, M., et al. "Effect of an aqueous extract of *Scoparia dulcis* on plasma and tissue glycoproteins in streptozotocin induced diabetic rats." *Pharmazie*. 2005; 60(2): 151-4.
Pari, L., et al. "Effect of *Scoparia dulcis* (Sweet Broomweed) plant extract on plasma antioxidants in streptozotocin-induced experimental diabetes in male albino Wistar rats." *Pharmazie*. 2004; 59(7): 557-60.
Pari, L., et al. "Effect of *Scoparia dulcis* extract on insulin receptors in streptozotocin induced diabetic rats: studies on insulin binding to erythrocytes." *J. Basic Clin. Physiol. Pharmacol.* 2004; 15(3-4): 223-40.
Latha, M., et al. "*Scoparia dulcis*, a traditional antidiabetic plant, protects against streptozotocin induced oxidative stress and apoptosis *in vitro* and *in vivo*." *J. Biochem. Mol. Toxicol.* 2004; 18(5): 261-72.
Latha, M., et al. "Insulin-secretagogue activity and cytoprotective role of the traditional antidiabetic plant *Scoparia dulcis* (Sweet Broomweed)." *Life Sci.* 2004 Sep; 75(16): 2003-14.
Latha, M., et al. "Effect of an aqueous extract of *Scoparia dulcis* on blood glucose, plasma insulin and some polyol pathway enzymes in experimental rat diabetes." *Braz. J. Med. Biol. Res.* 2004; 37(4): 577-86.
Latha, M., et al. "Modulatory effect of *Scoparia dulcis* in oxidative stress-induced lipid peroxidation in streptozotocin diabetic rats." *J. Med. Food*. 2003 Winter; 6(4): 379-86.
Pari, L., et al. "Hypoglycaemic activity of *Scoparia dulcis* L. extract in alloxan induced hyperglycaemic rats." *Phytother. Res.* 2002 Nov; 16(7): 662-4.

Antioxidant Actions:

Ratnasooriya, W. D., et al. "Antioxidant activity of water extract of *Scoparia dulcis*." *Fitoterapia*. 2005 Mar; 76(2): 220-2.
Pari, L., et al. "Protective role of *Scoparia dulcis* plant extract on brain antioxidant status and lipidperoxidation in STZ diabetic male Wistar rats." *BMC Complement. Altern Med.* 2004 No; 4:16.
Babincova, M., et al. "Free radical scavenging activity of *Scoparia dulcis* extract." *J. Med. Food*. 2001; 4(3): 179-181.

Antidepressant Actions:

Hasrat, J., et al. "Medicinal plants in Suriname: Screening of plant extracts for receptor binding activity." *Phytomedicine*. 1997; 4(1): 59-65.

This product is sold through health practitioners, retail stores, and [Raintree Nutrition](#). Please contact a health professional concerning other observations and/or effects of this product and/or if you have any disease, condition, or illness for which you are seeking treatment or products for.

Manufactured By:
Raintree Nutrition, Inc.
3579 Hwy 50 East, Suite 222
Carson City, Nevada 89701
(800) 780-5902 (775) 841-4142
www.RaintreeNutrition.com



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This product is not intended to treat, cure, or prevent any disease.