SAMAMBAIA POWDER

1 Pound (16 oz) **Retail Price: $24.00**

Description: Raintree Nutrition's samambaia whole herb powder (*Polypodium sp*) has been sustainably harvested in the Brazilian Amazon and is rich in the naturally occurring plant chemicals that this plant is regarded for. Samambaia contains flavonoids, alkaloids and lipids. It is a rich source of lipids and fatty acids and its therapeutic activity is attributed to these groups of chemicals.* Within its lipids are a group of chemicals called sulpho-quinovosyldiacylglycerols, (including one named calaguline) which have been documented and patented as part of the plant's "active" chemicals.* Two closely related species of these rainforest ferns (*Polypodium decumanum* and *Polypodium leucotomos)* share these same active chemicals. This plant name (genus) is also known by two Latin names (*Polypodium* and *Phlebodium*) but both names refer to the same plant. This rainforest fern is sold in Europe as an herbal drug named "Anapsos."* For more complete information on this rainforest plant, please see the Raintree Nutrition internet website and online **Tropical Plant Database**.

Traditional Uses:* for psoriasis and other skin conditions; for Alzheimer's disease, dementia, and memory problems; for coughs, bronchitis, chest colds, and other upper respiratory problems; for autoimmune disorders; as a general tonic (tones, balances, strengthens overall body functions); a cellular-protector, and anti-aging aid
Ingredients: 100% pure samambaia (Polypodium sp) whole herb (root, rhizome, leaf). 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 amounts twice daily.
Contraindications: Reports indicate that samambaia may enhance the effects of the heart drug digitalis (a medication commonly used to increase the force of heart contractions in those diagnosed with certain heart conditions). It is therefore contraindicated in combination with digitalis, and persons with any heart condition should seek the advice of a qualified health practitioner prior to using samambaia.
Drug Interactions: May potentiate the effects of digitalis and/or other digitalis-type prescription heart drugs.

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

Anti-psoriasis Actions:

Navarro-Blasco, F. J., et al. "Modification of the inflammatory activity of psoriatic arthritis in patients treated with extract of *Polypodium leucotomos* (Anapsos)." *Br. J. Rheumatol.* 1998; 37(8): 912.
Vasange, M., et al. "A sulphonoglycolipid from the fern *Polypodium decumanum* and its effect on the platelet activating factor receptor in human neutrophils." *J. Pharm. Pharmacol.* 1997; 49(5): 562–617.
Vasange, M., et al. "Flavonoid constituents of two *Polypodium* species (Calaguala) and their effect on the elastase release in human neutrophils." *Planta Med.* 1997; 63(6): 511–17.
Vasange, M., et al. "The fern *Polypodium decumanum*, used in the treatment of psoriasis, and its fatty acid constituents as inhibitors of leukotriene B4 formation." *Prostaglandins Leukotrienes Essent. Fatty Acids 1994*; 50: 279–284.
Tuominen, M., et al. "Effects of calaguala and an active principle, adenosine, on platelet activating factor." *Planta Med.* 1992; 58(4): 306–10.
Jimenez, D., et al. "Anapsos, an antipsoriatic drug, in atopic dermatitis." *Allergol. Immunopathol.* 1987; 15(4): 185–9.
Jimenez, D., et al. "Anapsos modifies immunological parameters and improves the clinical course in atopic dermatitis." *Dermatologica* 1986; 173(3):154–5.
Pineiro Alvarez, B. "2 years personal experience in anapsos treatment of psoriasis in various clinical forms." *Med. Cutan. Ibero. Lat. Am.* 1983; 11(1): 65–72.
Vargas, J., et al. "Anapsos, an antipsoriatic drug which increases the proportion of suppressor cells in human peripheral blood." *Ann. Immunol.* 1983; 134C(3):393–400.

Del Pino Gamboa, J., et al. “Comparative study between 120 mg. of anapsos and a placebo in 37 psoriasis patients.” *Med. Cutan. Ibero. Lat. Am.* 1982; 10(3): 203–8.
Capella Perez, M. C., et al. “Double-blind study using ‘anapsos’ 120 mg. in the treatment of psoriasis.” *Actas Dermosifiliogr*. 1981; 72(9-10): 487-94.
Mercadal Peyri, O., et al. “Preliminary communication on the treatment of psoriasis with anapsos.” *Actas Dermosifiliogr*. 1981; 72(1–2): 65–8.
Padilla, H. C. “A new agent (hydrophilic fraction of *Polypodium leucotomos*) for management of psoriasis.” *Int. J. Dermatol.* 1974; 13(5): 276–82.

Sunscreen & Skin Cellular Repair Actions:

Reyes, E., et al. “Systemic immunomodulatory effects of *Polypodium leucotomos* as an adjuvant to PUVA therapy in generalized vitiligo: A pilot study.” *J. Dermatol. Sci*. 2006; 41(3): 213-6.
Capote, R., et al. “*Polypodium leucotomos* extract inhibits trans-urocanic acid photoisomerization and photodecomposition.” *J. Photochem. Photobiol. B.* 2006; 82(3): 173-9.
Middelkamp-Hup, M. A., et al. “Oral *Polypodium leucotomos* extract decreases ultraviolet-induced damage of human skin.” *J. Am. Acad. Dermatol*. 2004 Dec; 51(6): 910-8.
Middelkamp-Hup, M. A., et al. “Orally administered *Polypodium leucotomos* extract decreases psoralen-UVA-induced phototoxicity, pigmentation, and damage of human skin.” *J. Am. Acad. Dermatol.* 2004; 50(1): 41-9.
Philips, N., et al. “Predominant effects of *Polypodium leucotomos* on membrane integrity, lipid peroxidation, and expression of elastin and matrixmetalloproteinase-1 in ultraviolet radiation exposed fibroblasts, and keratinocytes.” *J. Dermatol. Sci*. 2003 Jun; 32(1): 1-9.
Alonso-Lebrero, J. L., et al. “Photoprotective properties of a hydrophilic extract of the fern *Polypodium leucotomos* on human skin cells.” *J. Photochem. Photobiol. B.* 2003 Apr; 70(1): 31-7.
Alcaraz, M. V., et al. “An extract of *Polypodium leucotomos* appears to minimize certain photoaging changes in a hairless albino mouse animal model. A pilot study.” *Photodermatol. Photoimmunol. Photomed.* 1999; 15(3–4): 120–26.
Gonzalez, S., et al. “Topical or oral administration with an extract of *Polypodium leucotomos* prevents acute sunburn and psoralen-induced phototoxic reactions as well as depletion of Langerhans cells in human skin.” *Photodermatol. Photoimmunol. Photomed*. 1997; 13(1–2): 50–60.
Pathak, M. A., et al. “Polypodium extract as photoprotectant.” U.S. patent no. 5, 614, 197; 1997.
Gonzalez, S., et al. “Inhibition of ultraviolet-induced formation of reactive oxygen species, lipid peroxidation, erythema and skin photosensitization by *Polypodium leucotomos*.” *Photodermatol. Photoimmunol. Photomed*. 1996; 12(2): 45
Mohammad A. “Vitiligo repigmentation with Anapsos (*Polypodium leucotomos*)." *Int. J. Dermatol.* 1989; 28(7): 479.

Anti-Alzheimer’s & Brain Cell Protection Actions:

Alvarez, X. A., et al. “Double-blind, randomized, placebo-controlled pilot study with anapsos in senile dementia: effects on cognition, brain bioelectrical activity and cerebral hemodynamics." *Methods Find. Exp. Clin. Pharmacol.* 2000; 22(7): 585–94.
Cacabelos, R., et al. “A pharmacogenomic approach to Alzheimer’s disease.” *Acta Neurol. Scand. Suppl.* 2000; 176: 12–19.
Alvarez, X. A., et al. “Anapsos improves learning and memory in rats with Beta-Amyloid (1-28) deposits in the hippocampus” *Progress in Alzheimer's and Parkinson’s Diseases*, Ed. Fisher, A., Yoshida, M. and Hannin, I., Plenum Press, New York, 1998; pp. 699-703
Nikolov, R. “Alzheimer's disease therapy - an update.” *Drug News Perspect.* 1998 May; 11(4): 248-55.
Alvarez, X. A., et al. “Anapsos reverses interleukin-1 beta overexpression and behavioral deficits in nbM-lesioned rats.” *Methods Find. Exp. Clin. Pharmacol.* 1997; 19(5): 299–309.
Fernandez-Novoa, L., et al. “Effects of Anapsos on the activity of the enzyme Cu-Zn-superoxide dismutase in an animal model of neuronal degeneration.” *Methods Find. Exp. Clin. Pharmacol. 1997*; 19(2): 99–106.
Quintanilla A. E., et al. “Pharmaceutical composition of activity in the treatment of cognitive and/or neuroimmune dysfunctions.” U.S. patent no. 5,601,829; 1997.

Anti-inflammatory Actions:

Punzon, C., et al. “*In vitro* anti-inflammatory activity of *Phlebodium decumanum*. Modulation of tumor necrosis factor and soluble TNF receptors.” *Int. Immunopharmacol.* 2003; 3(9): 1293-9.

Manna, S. K., et al. ”Calagualine inhibits nuclear transcription factors-kappaB activated by various inflammatory and tumor promoting agents.” *Cancer Lett.* 2003; 190(2): 171-82.
Navarro-Blasco, F. J., et al. “Modification of the inflammatory activity of psoriatic arthritis in patients treated with extract of *Polypodium leucotomos* (Anapsos).” *Br. J. Rheumatol.* 1998; 37(8): 912.

Immune Modulating Actions:

Reyes, E., et al. “Systemic immunomodulatory effects of *Polypodium leucotomos* as an adjuvant to PUVA therapy in generalized vitiligo: A pilot study.” *J. Dermatol. Sci*. 2006; 41(3): 213-6.
Nogal-Ruiz, J. J., “Modulation by *Polypodium leucotomos* extract of cytokine patterns in experimental trichomoniasis model.” *Parasite*. 2003 Mar; 10(1): 73-8.
Sempere-Ortells, J. M., et al. “Anapsos (*Polypodium leucotomos*) modulates lymphoid cells and the expression of adhesion molecules.” *Pharmacol. Res.* 2002; 46(2): 185–90.
Gonzalez, S., et al. “An extract of the fern *Polypodium leucotomos* (Difur) modulates Th1/Th2 cytokines balance *in vitro* and appears to exhibit anti-angiogenic activities *in vivo*: Pathogenic relationships and therapeutic implications.” *Anticancer Res*. 2000; 20(3a): 1567–75.
Sempere-Ortells , J. M., et al. “Effect of Anapsos (*Polypodium leucotomos* extract) on *in vitro* production of cytokines.” *Br. J. Clin. Pharmacol.* 1997; 43(1): 85–9.
Bernd, A., et al. “*In vitro* studies on the immunomodulating effects of *Polypodium leucotomos* extract on human leukocyte fractions.” *Arzneimittelforschung.* 1995; 45(8): 901–4.
Rayward, J. et al. ”*Polypodium leucotomos* (PL), an herbal extract, inhibits the proliferative response of T. lymphocytes to polyclonal mitogens.” *Second Intl. Cong. on Biol. Response Modifiers,* San Diego, U.S.A. 1993.
Tuominen, M., et al., “Enhancing effect of extract *Polypodium leucotomos* on the prevention of rejection on skin transplants” *Phytotherapy Research* 1991; 5: 234–37.

Antioxidant Actions:

Garcia, F., et al. “Phenolic components and antioxidant activity of Fernblock, an aqueous extract of the aerial parts of the fern *Polypodium leucotomos*.” *Methods Find Exp. Clin. Pharmacol.* 2006 Apr; 28(3): 157-60.
Gombau, L., et al. “*Polypodium leucotomos* extract: Antioxidant activity and disposition.” *Toxicol. In Vitro.* 2006 Jun; 20(4): 464-71.
Gomes, A. J., et al. “The antioxidant action of Polypodium leucotomos extract and Kojic acid: Reactions with reactive oxygen species.” *Braz. J. Med. Biol. Res*. 2001; 34(11): 1487–94.

This product is distributed through health food stores, health practitioners, and by **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.

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