

BOLDO POWDER



1 Pound (16 oz)

Retail Price: \$24.00

Description: Raintree Nutrition's boldo leaf powder (*Peumus boldus*) has been sustainably harvested in the Brazilian Amazon and is rich in the naturally occurring plant chemicals that this plant is regarded for. Boldo has many biologically active chemicals. At least 17 alkaloids have been documented thus far, several of which are believed to be boldo's main active constituents. Much of the biological activity of the plant has been attributed to a single alkaloid called boldine.* For more complete information on this rainforest plant, please see the Raintree Nutrition internet website and online [Tropical Plant Database](#).

Traditional Uses:* for gallstones and as a gallbladder stimulant (to stimulate bile); to tone, balance, and strengthen liver function (increases liver bile and detoxifies the liver); for upper digestive tract disorders (ulcers, sluggish digestion, lack of bile, dyspepsia); for bowel disorders (colitis, leaky gut, constipation, spastic colon, irritable bowel syndrome [IBS]); for intestinal worms and liver flukes

Ingredients: 100% pure boldo leaf powder (*Peumus boldus*). No binders, fillers or additives are used. This product is non-irradiated and non-fumigated. It is organically grown in Chile 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 1/2 cup amounts twice daily.

Contraindications:

- Boldo has demonstrated abortive properties and caused fetal birth defects in animal studies and therefore should not be used during pregnancy or while breast-feeding.
- Chemicals in boldo may thin the blood. Those taking blood-thinning medications (such as Warfarin®) should use with caution or under the supervision of a health practitioner to monitor these possible effects.

Drug Interactions:

- Boldo may enhance the effects of blood-thinning medications..
- One *in vivo* study suggests that boldo and/or boldine can decrease metabolic activation and/or metabolism of toxins, drugs, and chemicals in the liver. As such, boldo may decrease the effect or reduce the half-life of certain drugs that are metabolized in the liver.

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

Antioxidant & Cellular Protective Actions:

Fernández, J. et al. "Effect of boldo (*Peumus boldus* Molina) infusion on lipoperoxidation induced by cisplatin in mice liver." *Phytother Res.* 2009; 23(7):1024-7.

Yu, B., et al. "The aporphine alkaloid boldine induces adiponectin expression and regulation in 3T3-L1 cells." *J. Med. Food.* 2009 Oct; 12(5): 1074-83.

Konrath, E., et al. "Antioxidant and pro-oxidant properties of boldine on hippocampal slices exposed to oxygen-glucose deprivation *in vitro*." *Neurotoxicology.* 2008 Nov; 29(6): 1136-40.

Hidalgo, M., et al. "Photostability and photoprotection factor of boldine and glaucine." *J. Photochem. Photobiol. B.* 2005 Jul; 80(1): 65-9.

O'brien, P., et al. "Boldine and its antioxidant or health-promoting properties." *Chem. Biol. Interact.* 2006 Jan; 159(1): 1-17.

Milian, L., et al. "Reactive oxygen species (ROS) generation inhibited by aporphine and phenanthrene alkaloids semi-synthesized from natural boldine." *Chem. Pharm. Bull.* 2004; 52(6): 696-9.

Santanam, N., et al. "A novel alkaloid antioxidant, Boldine and synthetic antioxidant, reduced form of RU486, inhibit the oxidation of LDL *in-vitro* and atherosclerosis *in vivo* in LDLR(-/-) mice." *Atherosclerosis.* 2004 Apr; 173(2): 203-10.

Schmeda-Hirschmann, G., "Free-radical scavengers and antioxidants from *Peumus boldus* Mol. ("Boldo").

Free Radic. Res. 2003 Apr; 37(4): 447-52.

Youn, Y. C., et al. "Protective effect of boldine on dopamine-induced membrane permeability transition in brain mitochondria and viability loss in PC12 cells." *Biochem. Pharmacol.* 2002 Feb; 63(3): 495-505.

Jimenez, I., et al. "Protective effects of boldine against free radical-induced erythrocyte lysis." *Phytother. Res.* 2000; 14(5): 339-43.

Reiniger, I. W., et al. "Boldine action against the stannous chloride effect." *J. Ethnopharmacol.* 1999 Dec; 68(1-3): 345-8.

Ubeda, A., et al. "Iron-reducing and free-radical-scavenging properties of apomorphine and some related benzylisoquinolines." *Free Radic. Biol. Med.* 1993 Aug; 15(2): 159-67.

Speisky, H., et al. "Antioxidant properties of the alkaloid boldine in systems undergoing lipid peroxidation and enzyme inactivation." *Biochem. Pharmacol.* 1991 Jun; 41(11): 1575-81.

Liver Protective & Detoxifying Actions:

Kubinova, R., et al. "Chemoprotective activity of boldine: modulation of drug-metabolizing enzymes." *Pharmazie.* 2001; 56(3): 242-43.

Jimenez, I., et al. "Biological disposition of boldine: *in vitro* and *in vivo* studies." *Phytother. Res.* 2000 Jun; 14(4): 254-60.

Jang, Y. Y., et al. "Protective effect of boldine on oxidative mitochondrial damage in streptozotocin-induced diabetic rats." *Pharmacol. Res.* 2000; 42(4): 361-71.

Bannach, R., et al. "Cytoprotective and antioxidant effects of boldine on tert-butyl hydroperoxide-induced damage to isolated hepatocytes." *Cell Biol. Toxicol.* 1996 Apr; 12(2): 89-100.

Kringstein, P., et al. "Boldine prevents human liver microsomal lipid peroxidation and inactivation of cytochrome P4502E1." *Free Radic. Biol. Med.* 1995; 18(3): 559-63.

Cederbaum, A. I., et al. "Inhibition of rat liver microsomal lipid peroxidation by boldine." *Biochem, Pharmacol.* 1992 Nov; 44(9): 1765-72.

Lanthers, M. C., et al. "Hepatoprotective and anti-inflammatory effects of a traditional medicinal plant of Chile, *Peumus boldus*." *Planta Med.* 1991; 57(2): 110-15.

Anti-cholesterol, Hypoglycemic, & Anti-platelet Actions:

Chi, T., et al. "Antihyperglycemic effect of aporphines and their derivatives in normal and diabetic rats." *Planta Med.* 2006 Oct; 72(13):1175-80.

Eltze, M., et al. "Affinity profile at alpha(1)- and alpha(2) - adrenoceptor subtypes and *in vitro* cardiovascular actions of (+) - boldine." *Eur. J. Pharmacol.* 2002; 443(1-3): 151-68.

Teng, C. M., et al. "Antiplatelet effects of some aporphine and phenanthrene alkaloids in rabbits and man." *J. Pharm. Pharmacol.* 1997; 49(7): 706-11.

Almeida, E. R., et al. "Toxicological evaluation of the hydro-alcohol extract of the dry leaves of *Peumus boldus* and boldine in rats." *Phytother. Res.* 2000; 14(2): 99-102.

Chen, K. S., et al. "Antiplatelet and vasorelaxing actions of some aporphinoids." *Planta Med.* 1996; 62(2): 133-36.

Digestive Stimulant, Diuretic & Bile Stimulant Actions:

Gotteland, M., et al. "Protective effect of boldine in experimental colitis." *Planta Med.* 1997; 63(4): 311-15.

Gotteland, M., et al. "Effect of a dry boldo extract on oro-cecal intestinal transit in healthy volunteers." *Rev. Med. Chil.* 1995; 123(8): 955-60.

Lévy-Appert-Collin, M. C., et al. "Galenic preparations from *Peumus boldus* leaves (Monimiaceae)." *J. Pharm. Belg.* 1977; 32: 13.

Hughes, D. W., et al. "Alkaloids of *Peumus boldus*. Isolation of laurotetanine and lauroitsine." *J. Pharm. Sci.* 1968.

Gallbladder Bile Stimulant Actions:

Speisky, H., et al. "Boldo and boldine: an emerging case of natural drug development." *Pharmacol. Res.* 1994 Jan-Feb; 29(1): 1-12.

Tavares, D. C., et al. "Evaluation of the genotoxic potential of the alkaloid boldine in mammalian cell systems *in vitro* and *in vivo*." *Mutat. Res.* 1994; 321(3): 139-45.

Krug, H., et al. "New flavonol glycosides from the leaves of *Peumus boldus* Molina." *Pharmazie*, 1965; Nov.

Analgesic, Anti-inflammatory, Muscle-Relaxant & Anti-Spasmodic Actions:

- Zhao, Q., et al. "Antinociceptive and free radical scavenging activities of alkaloids isolated from *Lindera angustifolia* Chen." *J. Ethnopharmacol.* 2006 Jul; 106(3): 408-13.
- Ivorra, M., et al. "8-NH₂-boldine, an antagonist of alpha_{1A} and alpha_{1B} adrenoceptors without affinity for the alpha_{1D} subtype: structural requirements for aporphines at alpha₁-adrenoceptor subtypes." *Planta Med.* 2005 Oct; 71(10): 897-903.
- Estelles, R., et al. "Effect of boldine, secoboldine, and boldine methine on angiotensin II-induced neutrophil recruitment *in vivo*." *J. Leukoc. Biol.* 2005 Sep; 78(3): 696-704.
- Kang, J. J., et al. "Studies on neuromuscular blockade by boldine in the mouse phrenic nerve diaphragm." *Planta Med.* 1999; 65(2): 178-79.
- Kang, J. J., et al. "Effects of boldine on mouse diaphragm and sarcoplasmic reticulum vesicles isolated from skeletal muscle." *Planta Med.* 1998; 64(1): 18-21.
- Backhouse, N., et al. "Anti-inflammatory and antipyretic effects of boldine." *Agents Actions* 1994; 42(3-4): 114-17.
- Ivorra, M. D., et al. "Different mechanism of relaxation induced by aporphine alkaloids in rat uterus." *J. Pharm. Pharmacol.* 1993; 45(5): 439-43.
- Lanthers, M. C., et al. "Hepatoprotective and anti-inflammatory effects of a traditional medicinal plant of Chile, *Peumus boldus*." *Planta Med.* 1991; 57(2): 110-15.

Anthelmintic (worm expelling) & Antiparasitic Actions :

- van Krimpen, M., et al. "Anthelmintic effects of phytogetic feed additives in *Ascaris suum* inoculated pigs." *Vet. Parasitol.* 2009 Nov 13.
- Morello, A., et al. "Trypanocidal effect of boldine and related alkaloids upon several strains of *Trypanosoma cruzi*." *Comp. Biochem. Physiol. Pharmacol. Toxicol. Endocrinol.* 1994; 107(3): 367-71.
- Johnson, M. A., et al. "Biosynthesis of ascaridole: iodide peroxidase-catalyzed synthesis of a monoterpene endoperoxide in soluble extracts of *Chenopodium ambrosioides* fruit." *Arch. Biochem. Biophys.* 1984 Nov; 235(1): 254-66

Anticancerous & Antileukemic Actions:

- Gerhardt, D., et al. "Boldine: a potential new antiproliferative drug against glioma cell lines." *Invest. New Drugs.* 2008 Dec 3.
- Stevigny, C., et al. "Cytotoxic and antitumor potentialities of aporphinoid alkaloids." *Curr. Med. Chem. Anti-Cancer Agents.* 2005 Mar; 5(2): 173-82.
- Gonzalez-Cabello, R., et al. "Effects of boldine on cellular immune functions *in vitro*." *J. Investig. Allergol. Clin. Immunol.* 1994 May-Jun; 4(3): 139-45.

Antifungal Actions:

- Bluma, R., et al. "Control of *Aspergillus* section Flavi growth and aflatoxin accumulation by plant essential oils." *J. Appl. Microbiol.* 2008 Jul; 105(1): 203-14.

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