

Distinctive® Phytostem VitaFoods

Nutritional Supplements to Promote a Beautiful, Healthier You

Echinacea Dry



In recent years, researchers have successfully developed active ingredients through *plant tissue culturing*. Many medicinal, nutritional and cosmetic active ingredients have been enhanced through this technology.

Resources of Nature, in partnership with global leaders in this field, can now selectively harvest cells from a plant, allowing the utilization of even the most rare plant species without harm. These cells are specially cultivated to generate cultures rich in plant stem cells and complex compounds. These specifically designed plant cell cultures act as nature-made liposomes and are fully compliant with the skin, perfect for delivering their contents of powerful antioxidants and cell regenerating molecules.

Up until recently, harvesting these highly active cells had been extremely difficult and expensive. Through advances in the most specialized processing technologies, they are now available in quantities feasible for commercialization for nutritional applications as "**Distinctive®Phytostem VitaFoods**".

Compared to standard botanical extraction methods, this highly sustainable, eco-friendly technology provides higher purity products with up to 1000 times the active molecule concentrations, and because of their highly controlled production techniques, Distinctive®Phytostem VitaFoods meet and exceed Certified Organic and Bio-Eco Cosmesis guidelines.



Echinacea angustifolia, also known as elk root or purple coneflower is a drought-tolerant perennial herb, native to North America. Early Native Americans discovered its medicinal benefits long ago by observing elk seeking out the plants and consuming them when sick or wounded. Since then, echinacea has a long history of use to help stimulate the immune system, suppress infection and help control pain and inflammation.

Scientists have identified specific chemical constituents contributing to the health effects of echinacea including phytosterols, amino acids, polysaccharides, alkylamides, phenylpropanoids, phenolic derivatives and substances like echinacoside, chlorogenic acid, cynarin, 3,5-dicaffeoylquinic acid. **Distinctive®Phytostem VitaFoods- Echinacea Dry** is specifically cultured to maximize the production of these stress fighting and immunity boosting agents along with regenerating and healing stem cells.

- ◆ Free Radical Scavenging
- ◆ Anti-Stress
- ◆ Anti-Oxidant
- ◆ Anti-Inflammatory
- ◆ Highest concentration of echinacoside
- ◆ Free from any type of pollutants
- ◆ Defined and standardized composition profile
- ◆ Safe and effective

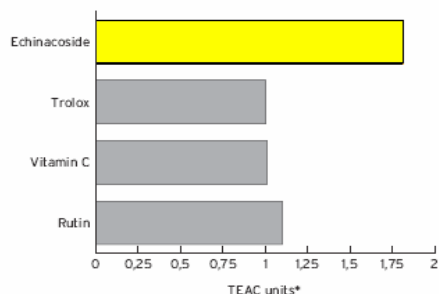
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Distinctive® Phytostem VitaFoods - Echinacea Dry

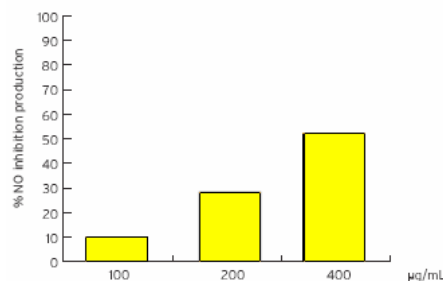
ANTI-OXIDANT ACTIVITY (In-Vitro)



Echinacoside has a considerable antioxidant activity higher than that of common natural antioxidant benchmarks.

* TEAC (Trolox Equivalent Antioxidant Capacity)

ANTI-INFLAMMATORY ACTIVITY (In-Vitro)

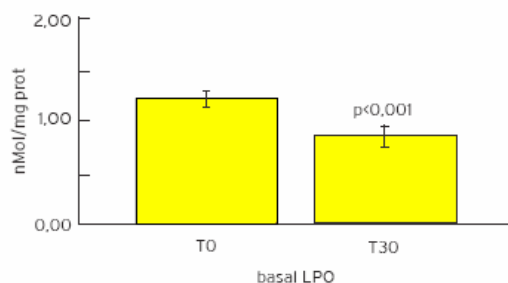


ED25N significantly inhibits the production of the biological messenger nitric oxide (NO), thus limiting the inflammation processes.

CLINICAL EVALUATION ON ATHLETES

- * 19 healthy male and female subjects, aged 25-55 years old and practicing sport at least 3 times a week (63% marathon, 21% fitness, 11% volleyball, 5% basketball)
- * 30-day treatment with a food supplement containing 65 mg/capsule of **Echinacea Dry** (dosage: 1 capsule a day)
- * Blood sample withdrawal at the beginning (T0) and at the end of the study (T30) for lipoperoxides determination.

Daily consumption of ED25N significantly reduces plasma lipoperoxide levels of over 30% thus contributing to decrease the oxidative stress damage. The same test demonstrates its capability to protect plasma lipid structures also from initial steps of oxidation making them less susceptible to radical attack (data not shown).



TYPICAL PROPERTIES

Composition

Echinacea Dry 4N

Echinacea angustifolia (Asteraceae) cell cultures extract titrated at 4% of echinacoside

Excipients: Organic maltodextrins

Recommended Dosage (Echinacoside)

Protection from oxidative stress in athletes and people exposed to physical and mental stress: 60 - 120 mg/day. Immunobooster: 150-300 mg/day. Treatment cycle: 30-60 days treatment followed by 15 days wash-out.

Formulation Guidelines

Easy to include in any type of solid formulations. pH < 5 for liquid formulations.

Product Form

Amber-colored powder with characteristic flavor

Solubility

Freely soluble in water (Eur. Ph. 5th Edition)

Preservatives

Absent

Aflatoxins

Absent

GMO

Absent

Pesticides

Absent

Microbial Specifications

Total microbial count: bacteria < 1000 UFC/g, fungi < 100 UFC/g

Packaging

1 Kg

Storage

Store the product in the original, well closed container, in a cool, dry area and protected from light

Shelf Life

24 months

Echinacea Dry 25N

Echinacea angustifolia (Asteraceae) cell cultures extract titrated at 25% of echinacoside

Excipients: Organic maltodextrins

10 - 200 mg/day

The highest concentration, the lowest bulk space in your formulation.

Amber-colored powder with characteristic flavor

Freely soluble in water (Eur. Ph. 5th Edition)

Absent

Absent

Absent

Absent

Total microbial count: bacteria < 1000 UFC/g, fungi < 100 UFC/g

1 Kg

Store the product in the original, well closed container, in a cool, dry area and protected from light

24 months

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