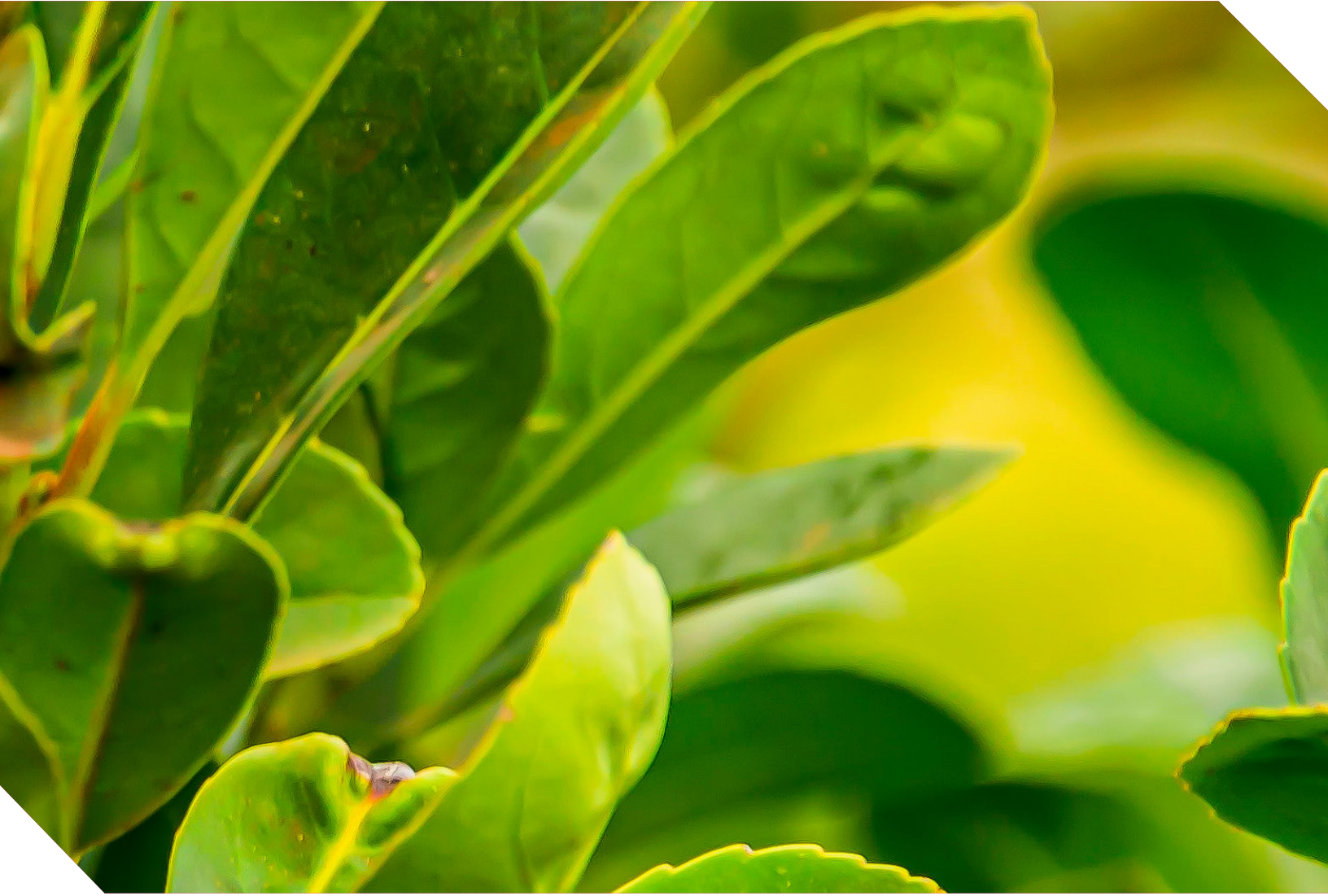


TeraSerum™ Yerba Mate



Natural Polyphenols • Potent Anti-Oxidant

Actera

TeraSerum™ Yerba Mate is a microencapsulated botanical extract for the delivery of natural polyphenols. It is extracted with water and encapsulated to powder with maltodextrin (modified starch). Highly concentrated in antioxidant plant phytochemicals (chlorogenic acid, caffeic acid, rutin, caffeine, oleanolic acid).

Physical Description

Green Powder

INCI

Ilex Paraguariensis Leaf Extract (and) Zea Mays (corn starch)

Common Name

Yerba Mate Extract

Applications

Skin Care	Facial Care
Anti-Aging	Sunscreen
Hair Care	Eye Care
After Sun	Scalp Care

Guidelines

- Use at 0.05% - 0.2% as an antioxidant and/or antimicrobial booster.
- Use at 0.10% - 1.00% for skin, scalp, and hair benefits.

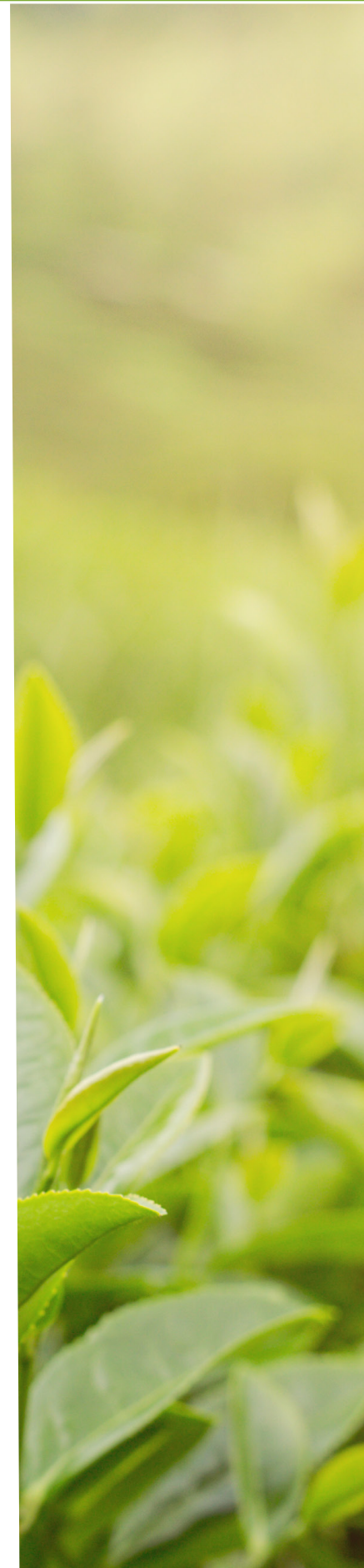
TeraSerum Yerba Mate is soluble in water with mixing. We recommend adding directly to the water phase, below 40°C, to preserve the natural characteristics.

Sustainability

Our Yerba Mate is sustainably sourced from a reforestation consortium of farmers that are engaged in restoring the native Atlantic Forest in Brazil.

Benefits

- Helps to prevent oxidation and microbial growth in formulations.
- It delivers natural antioxidants to the skin, scalp, and hair, hindering the undesired effects of excessive UV light and photoaging.
- It helps to improve skin elasticity by reducing the generation of Advanced Glycation End-products (AGEs) and protecting elastin.
- The extract supports longer-lasting hair coloration.
- May boost scalp health by inhibiting the fungus that causes dandruff, *Malassezia furfur*.



With more healing compounds than green tea and equal amounts of caffeine as coffee, Yerba Mate uniquely stimulates the mind and body without crashing or jittery effects.

Yerba Mate is a powerful adaptogen – it's an herb that grows in extreme conditions but adapts and thrives in harsh environments.

As a result, adaptogens contain high levels of antioxidants and saponins that defend the plant against disease and make them resistant to insects and environmental damage.

These potent antioxidant properties help protect against free radical damage and slow down the ageing process.

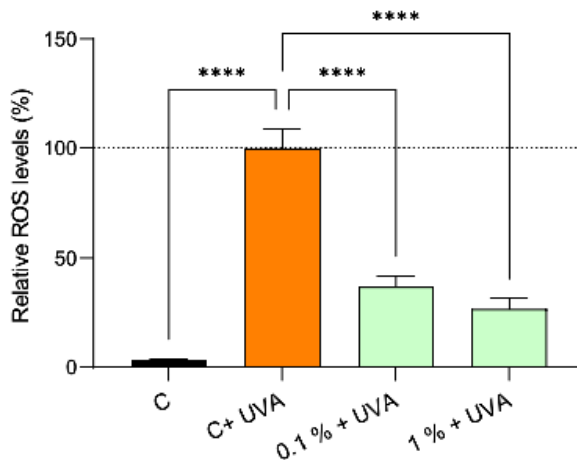
Clinical Results

The anti-oxidant potential of TeraSerum Yerba Mate was evaluated in-vitro using reconstructed human epidermis (RHE). Reactive Oxygen Species (ROS) were measured following UVA light-induced oxidative stress on samples treated with various concentrations of active vs. control.

RHE tissues were cultured in the presence of TeraSerum Yerba Mate at 0.1% and 1% for 24 hours and subsequently subjected to UVA light (15 J/cm², 30 min exposure). The fluorescence of the ROS-oxidized product of H₂DCFDA, 2',7'-dichlorofluorescein (DCF) was recorded and relative ROS levels were corrected versus cell viability (measured by the reduction of resazurin to resorufin) to assess the protective effect of the tested sample.

A sharp and statistically significant decrease in ROS levels by 63.1% and 73.2% vs. control was achieved for 0.1% and 1% TeraSerum Yerba Mate treated samples, respectively.

Oxidative Protection of TeraSerum Yerba Mate



Protective effect of Yerba Mate from the UVA-induced oxidative stress. Bar graph representing Reactive Oxygen Species (ROS) levels normalized to Control + UVA, after 24 hours of treatment in RHE tissues with TeraSerum Yerba Mate and subsequent UVA exposure. Asterisks (*) over bars indicate statistical significance vs Control + UVA (Dunnett's post hoc multiple comparisons test).

TeraSerum™ Yerba Mate was the winner of Ecovia Intelligence's **2020 Sustainable Beauty Award** category for Sustainable Ingredient.



Winner
Sustainable Ingredient



Actera

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