

Activated Grape Seed Extract (AGSE)

Description

Activated Grape Seed Extract (AGSE) is a novel, proprietary botanical extract enriched for Protein Phosphatase 2A (PP2A) activating flavonoids. PP2A is a master regulator protein that modulates oxidative stress signaling and skin barrier function. Thus, keeping PP2A active is important to combat skin aging.



Results demonstrate that AGSE is ~5x more potent than commercial grape seed extracts in promoting PP2A activity. By identifying botanical extracts that can naturally boost PP2A, AGSE reduces free radical damage and inflammation. This extract has multi-functional activity including antioxidant, anti-pollution and photo-aging protection. Therefore, AGSE offers a broad range of applications that can be used in a variety of skin care products to provide anti-aging benefits.

Appearance

Dark red, purple powder
(also available as a 10% solution)

INCI

Vitis Vinifera Seed Extract

Registration

CAS- No:
84929-27-1

EINECS-No:
284-511-6

Preservatives/Stabilizers

None

Characteristics/Specifications

- Anthocyanins and Hydrolyzed proanthocyanidins content > 40%
- PP2A demethylation inhibition: < 0.1 - 0.3 µg/mL

Efficacy

- Antioxidant activity: AGSE in a cell-free assay has potent free radical scavenging capacity, ~2.5x more potent than ascorbic acid (Vitamin C) and 4x more potent than α-tocopherol (Vitamin E)

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- Antioxidant activity: AGSE in cells reduces reactive oxygen species (ROS) by 100%, 2x more potent than ferulic acid and 6x more potent than ascorbic acid (Vitamin C)
- Photo-aging protection: for both UVA-treated dermal fibroblasts and UVB-treated epidermal keratinocytes, AGSE strongly inhibits IL-6, IL-8 and TNF α cytokine release better than ferulic acid and ascorbic acid
- Anti-pollution properties: AGSE blocks urban dust induced inflammation (TNF α)
- Anti-aging properties: AGSE promotes collagen gene expression in dermal fibroblasts
- AGSE protects skin from chemical and metal induced inflammation

Application

Lotions, Creams, Serums, Face Masks, Lip Care, Body Care, and Make Up

Compatibility

Miscible with alcohols and glycols. Insoluble in water or oils. It is necessary to use a solubilizer in aqueous or oil-based preparations. Should be blended into the formulation below 40°C. Stable in formulations.

Application concentration

0.1% to 1%

Toxicology

- non-irritating to skin
- non-irritating to under eye area
- non-phototoxic
- non-mutagenic (Ames)

Storage & Shelf life

- Store below 20 °C and keep tightly sealed, store away from moisture, strong heat and sunlight
- Minimum 2 years shelf-life



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