

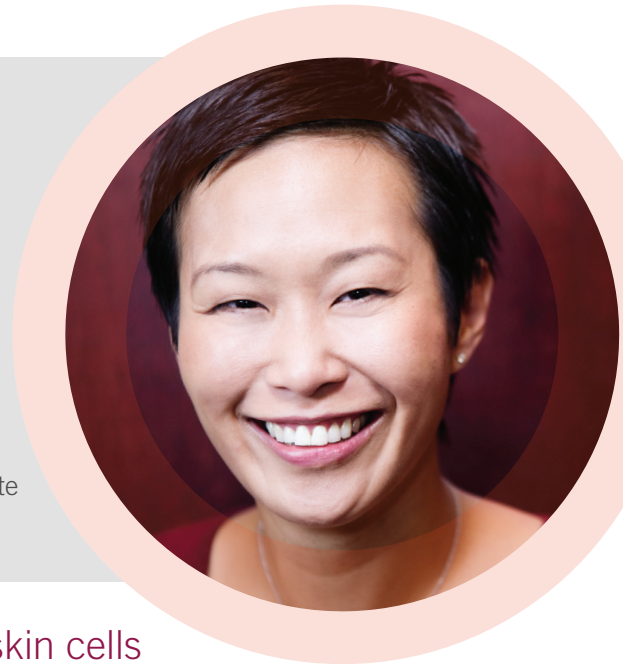
# Skin Health

In the anti-aging market where proven effectiveness really matters, resveratrol is a powerful and scientifically-backed ingredient that can help rejuvenate and energize skin.

Veri-te™ resveratrol is an ideal ingredient for use in topical creams and serums, and *'beauty-from-within'* applications.

## Skin health, a matter of protection

Pollution as well as unhealthy habits (e.g. poor nutrition, sun-bathing and smoking) can contribute to the development of oxidative stress and damage our skin. This can cause age spots, wrinkles, and further forms of irritation, giving skin a prematurely aged look.<sup>1</sup> Resveratrol's anti-oxidative and rejuvenating properties can contribute to the maintenance of healthier and younger looking skin.<sup>2</sup>



## Resveratrol helps protect skin cells from UV light-induced oxidative stress

Resveratrol has several intracellular targets that mediate its beneficial biological effects.<sup>3</sup> Among these targets, resveratrol binds to and inhibits the activity of tyrosinase, a key enzyme involved in melanin synthesis and skin pigmentation.<sup>4</sup> Literature documents how resveratrol can help protect human skin cells from UV-induced oxidative stress and damage.<sup>5</sup> This work highlights that resveratrol can:

- Protect the health of skin cells
- Enhance the skin's natural protection mechanisms and the activity of antioxidant enzymes

## Topically applied resveratrol helps rejuvenate the skin

A single-blind study<sup>6</sup> investigated resveratrol's effect on visible skin health by applying a cream with 0.1 mg resveratrol/g cream, daily. The clinical evaluation was monitored before and after 30 days of treatment and revealed:

- Resveratrol treatment showed visible improvement with a remarkable decrease in signs of aging
- Improved skin hydration by 21%, elasticity by 50%, and color uniformity by about 6%

8 healthy women with signs of aging skin (45-70 yrs), 30 days, 2 x 0.1 mg resveratrol cream daily, corneometry, colorimetry and elastometry measurements

## Topically applied resveratrol can improve overall skin appearance

The effect of resveratrol on skin health was investigated in a clinical trial<sup>7</sup> that compared skin quality prior to treatment versus week 8 and week 12 intervals of topical use of 1% resveratrol blend. This clinical evaluation on skin quality improvement documented that resveratrol:

- Improved fine lines, wrinkles, firmness, elasticity, skin laxity, skin tone, unbalanced pigmentation, radiance, tactile roughness and overall skin appearance
- Is well absorbed and supports skin's cellular regeneration by stabilizing dermal thickness by 19%

55 healthy women (40-60 yrs), 12 weeks, 1% resveratrol blend daily, visual and clinical evaluations on skin quality

## Resveratrol blend supports 'beauty-from-within'

The oral intake of resveratrol was studied in a placebo controlled, double-blind clinical trial<sup>8</sup> and showed that the resveratrol blend:

- Significantly decreased systemic oxidative stress and increased plasmatic antioxidant capacity, and skin antioxidant power
- Improved skin hydration and elasticity, appearance of skin roughness and depth of wrinkles
- Significantly decreased intensity of age spots

50 healthy women (35-65 yrs), 60 days, blend containing 8 mg resveratrol, clinical measurements and skin oxidative stress levels

## References

1. Poljšak B and Dahmane R. Free Radicals and Extrinsic Skin Aging. *Dermatol Res Pract.* 2012; 2012:135206.
2. Farris P *et al.* Resveratrol: A Unique Antioxidant Offering a Multi-Mechanistic Approach for Treating Aging Skin. *J Drugs Dermatol.* 2013; 12: 1389-1394.
3. Britton RG, Kovoov C, and Brown K. Direct molecular targets of resveratrol: identifying key interactions to unlock complex mechanisms. *Ann NY Acad Sci.* 2015; 1348: 124-133.
4. Bernard P and Berthon J. Resveratrol: an original mechanism on tyrosinase inhibition. *Int J Cosmet Sci.* 2012; 22: 219-226.
5. Liu Y *et al.* Resveratrol protects human keratinocytes HaCaT cells from UVA-induced oxidative stress damage by downregulating Keap1 expression. *Eur J Pharmacol.* 2011; 650(1):130-7.
6. Moyano-Mendez JR *et al.* Enhanced antioxidant effect of trans-resveratrol: potential of binary systems with polyethylene glycol and cyclodextrin. *Drug Dev Ind Pharm.* 2014; 40(10): 1300-7.
7. Farris P *et al.* Evaluation of efficacy and tolerance of a nighttime topical antioxidant containing resveratrol, baicalin, and vitamin e for treatment of mild to moderately photodamaged skin. *J Drugs Dermatol.* 2014; 13(12): 1467-72.
8. Buonocore D *et al.* Resveratrol-procyanidin blend: nutraceutical and anti-aging efficacy evaluated in a placebo-controlled, double-blind study. *Clin Cosmet Investig Dermatol.* 2012; 5: 159-165.

## resveratrol re-imagined™

Veri-te™ resveratrol is produced using an innovative yeast fermentation process.

This means our resveratrol is:

**PURE:** >98% pure *trans*-resveratrol

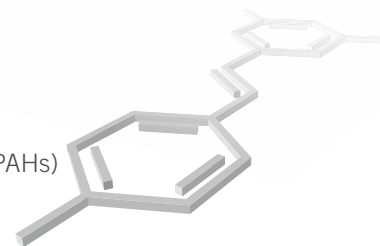
**SAFE:** free of contaminants (e.g. pesticides, emodin & PAHs)

**RELIABLE:** consistent batch to batch

**VERSATILE:** off-white, odorless and neutral taste

**SCALABLE:** large cGMP production capacity

**Veri-te™**  
RESVERATROL



## Our Products:

- Veri-te™ Food Grade 98% purity for dietary supplements and foods and beverages\*
- Veri-Sperse™ 90% for when increased bioavailability and CWD are important
- Veri-te™ Aqua for liquid applications
- Cosmetic-Grade resveratrol
- API Grade resveratrol product with DMF available

## Regulatory & Quality Status:

- Food Grade 98% purity for dietary supplements and foods and beverages\*
- Made under cGMP and HACCP based food safety conditions
- Halal and Kosher certified resveratrol available

Evolve is committed to supporting clinical trials and research studies to further understand the important benefits of resveratrol on healthy living and aging.

## About Evolve:

Veri-te™ resveratrol is produced by Evolve, a Swiss biotech company focused on the research, development and commercialization of products based on nature. We have leading businesses in Flavors and Fragrances, Health Ingredients and Health Protection. Evolve's employees, half of which are women, are dedicated to make the best products that can contribute to health, wellbeing and sensory enjoyment. Find out more at [www.evolve.com](http://www.evolve.com).

## For more information:

We have sales offices in the US and Europe, with distribution and regulatory approvals worldwide.\* Our technical team can advise on formulations and ideal combinations. Additionally, our marketing team can help you plan your marketing strategy for Veri-te™ resveratrol. Contact us to order free samples for evaluation.

Evolve's website: [www.evolve.com](http://www.evolve.com)

Veri-te™ resveratrol website: [www.veriteresveratrol.com](http://www.veriteresveratrol.com)

For general inquiries and customer service inquiries please email: [res@veriteresveratrol.com](mailto:res@veriteresveratrol.com)

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\*Contact Evolve for a full list of countries where approved by regulation

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