

RHODIOLA BY FINZELBERG

Protecting nature while securing supply.

PROTECTING NATURE WHILE SECURING SUPPLY.

We are Finzelberg, the experts in botanical efficacy. We protect and promote health the natural way. Cultivating *Rhodiola rosea* is more than a project to us – it is deeply rooted in our DNA to think and act sustainably.

For around 20 years, we have been intensely working on cultivating *Rhodiola rosea*. Commercially viable supply is essential to meet current and future demand. With our established cultivation of *Rhodiola rosea*, we aim to protect the species of the plant, which are severely endangered and were recently included in CITES.



Rhodiola – Efficiency for body and mind

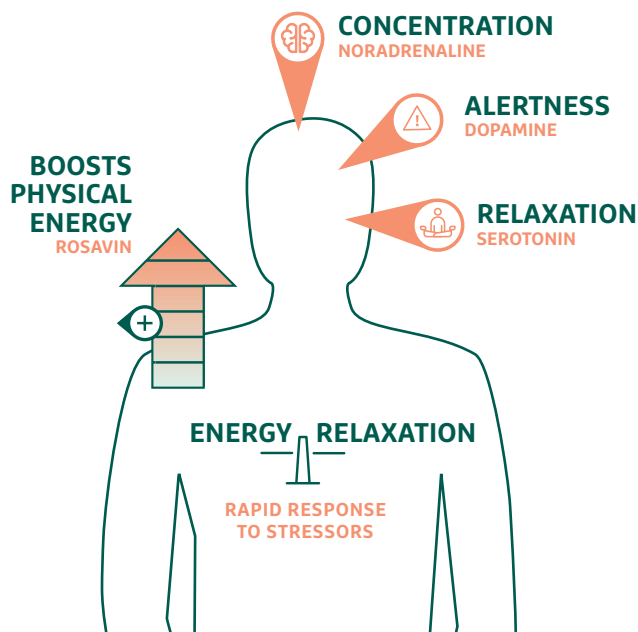
Since the 1960's, Rhodiola has been extensively studied for its versatile adaptogen profile. Globally rising stress levels are driving consumer demand for natural remedies.

Here's how it works:

Rhodiola enhances neurotransmitters such as serotonin, dopamine, and noradrenaline. It increases alertness, memory and learning functions and relieves anxiety, depression, and mood swings.^{1,2} Rhodiola promotes the body's natural energy production, enhances performance under stress, and reduces mental and physical fatigue.^{2,6} Rhodiola improves skeletal muscle damage and enhances physical performance.^{2,4,5}

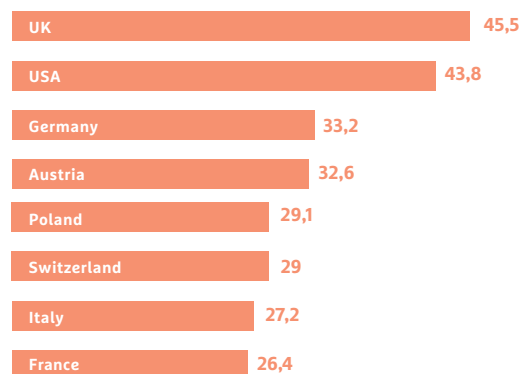
The efficacy of *Rhodiola rosea* by Finzelberg has been examined in 2004 in a double-blind, placebo-controlled, cross-over clinical study. De Bock et al. (2004) showed that the intake of *Rhodiola rosea* extract by Finzelberg improves endurance exercise capacity (VO2max) in young healthy volunteers from Day 1.

RHODIOLA – MODE OF ACTION



HOW PREVALENT ARE STRESS, DEPRESSION AND ANXIETY?

Percentage of respondents who state they have experienced mental problems in the past 12 months (in %).



Base: 2000 - 8401 respondents (ages 18-64) per country July 2021 - June 2022.
Source: Statista Consumer Survey



Our *Rhodiola* cultivation

Raw material

Our *Rhodiola* extracts are primarily based on *Rhodiola rosea* harvested from our own cultivations in Western Europe. Manufactured in Germany and with the premium quality of Finzelberg extracts.

Active ingredients

Rhodiola rosea root contains more than 140 constituents, the group of Rosavins (Rosin, Rosavin, Rosarin), Tyrosol and Salidroside have been described as the most important biological active substances².

Boosts body energy

Adenosine 5'-triphosphate (ATP) is the principal molecule for storing and transferring energy in cells. The regulation of ATP levels is a key mechanism for modulation of energy homeostasis and metabolism. Low ATP levels are associated with symptoms such as loss of energy, fatigue and exhaustion. *Rhodiola* activates the (re)synthesis of ATP in cells and improves neuron's energy metabolism, which enhances mental performance under stress condition and stimulates reparative energy processes after intense exercise^{2,6}. Furthermore, *Rhodiola* inhibits inflammatory C-reactive protein and creatinine kinase expression in the blood levels of healthy untrained volunteers after exhausting exercise⁵.

Protects the brain

Rhodiola and its constituents stimulate neurogenesis, the repair and birth of new neurons. It protects human cortical neurons from oxidative stress and prevents cell death. It also modulates the brain-derived neurotrophic factor (BDNF), which induces the cell's differentiation to dopaminergic neurons^{6,7}.

What you need to know

Rhodiola improves efficiency of body and mind by increasing energy, stamina, strength, and mental capacity, improving athletic performance, modulating the effects of stress.

[1] Khanum F. et al., 2005. *Rhodiola rosea*: A Versatile Adaptogen. *Comprehensive Reviews in Food Science and Food Safety*, 4, 55-62. doi: 10.1111/j.1541-4337.2005.tb00073.x
[2] Ivanova Stojcheva, E.; Quintela, J.C., 2022. The Effectiveness of *Rhodiola rosea* L. Preparations in Alleviating Various Aspects of Life-Stress Symptoms and Stress-Induced Conditions— Encouraging Clinical Evidence. *Molecules*, 27, 3902. <https://doi.org/10.3390/molecules27123902> [3] Panossian A.G., 2013. Adaptogens in Mental and Behavioral Disorders. *Psychiatric Clinics of North America*, 36, 49–64. <http://dx.doi.org/10.1016/j.psc.2012.12.005> [4] Lu Y. et al., 2022. Effects of *Rhodiola Rosea* Supplementation on Exercise and Sport: A Systematic Review. *Frontier in Nutrition*, 9, 856287. doi: 10.3389/fnut.2022.856287 [5] De Bock, K. et al., 2004. Acute *Rhodiola Rosea* Intake can improve endurance exercise Performance. *International Journal of Sport Nutrition and Exercise Metabolism*, 14, 298-307. doi: 10.1123/ijnsnem.14.3.298 [6] Chiang H.M. et al., 2015. *Rhodiola* plants: Chemistry and biological activity. *Journal of Food and Drug Analysis*, 23, 359-69. <http://dx.doi.org/10.1016/j.jfda.2015.04.007> [7] Zhao H.b. et al., 2014. Salidroside induces rat mesenchymal stem cells to differentiate into dopaminergic neurons. *Cell Biology International*, 38, 462-71. doi: 10.1002/cbin.10217


RHODIOLA

Rhodiola is helpful for enhancing the efficiency of body and mind.

At a glance:

- ✓ Enhances mental performance¹
- ✓ Boosts energy²
- ✓ Supports and protects brain cells⁶
- ✓ Reduces pain and muscle damage after exercise⁴

Various applications:

-  Soft gel capsules
-  Capsules
-  Tablets

More benefits:

- ✓ Vegan
- ✓ Own sustainable cultivation in Western Europe
- ✓ Non-GMO
- ✓ No artificial colors or flavors
- ✓ Preservative-free
- ✓ Caffeine-free



GOLDEN ROOT EXTRACT

Rhodiola rosea

BOTANICAL PART(S) USED:

*Rhizome and
Roots*

EXTRACT COMPOSITION:

*Native Rhodiola rosea extract,
Maltodextrin (excipient)*

Ask for more information:

globalsales@finzelberg.com

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Finzelberg

DELIVERING BOTANICAL EFFICACY.

Finzelberg GmbH & Co. KG
Koblenzer Straße 48-56
56626 Andernach / GERMANY
Tel.: +49 2632 924-00
welcome@finzelberg.com
www.finzelberg.com

