



## Cognitive Clarity and Focus

Memory Enhancement, Learning, Focus and Attention

“ "Rhodiola Rosea has significant beneficial effects on fatigue and attention, improving cognitive functions."



A randomized trial of two different doses of a SHR-5 Rhodiola rosea extract versus placebo and control of capacity for mental work.



Shevtsov, V. A., Zholus, B. I., Shervarly, V. I., Vol'skij, V. B., Korovin, Y. P., Khristich, M. P., ... & Wikman, G. (2003). *Phytomedicine*, 10(2-3), 95-105.

“ "Rhodiola supplementation can improve life-stress symptoms to a clinically relevant degree."



Rhodiola rosea: Standardized extract SHR-5 in the treatment of subjects with stress-related fatigue.



Olsson, E.M., von Schéele, B., & Panossian, A.G. (2009). *Planta Medica*, 75(2), 105-112.

“ "Rhodiola can improve the cognitive function of subjects, especially in attention."



The influence of adaptogens on ultraweak biophoton emission: a pilot-experiment.



Wiegant, F.A., Surinova, S., Ytsma, E., Langelaar-Makkinje, M., Wikman, G., & Post, J.A. (2009). *Phytotherapy Research*, 23(1), 110-114.

“ "Rhodiola rosea may have beneficial effects on cognitive functions."



Rhodiola rosea for physical and mental fatigue: a systematic review.



Ishaque, S., Shamseer, L., Bukutu, C., & Vohra, S. (2012). *BMC Complementary and Alternative Medicine*, 12(1), 70.

“ = Study Result or Quote



= Study Title



= Study Citation



“ “Rhodiola rosea supplementation can improve endurance exercise performance and brain function.”



Rhodiola rosea supplementation improves both aerobic and anaerobic performance in active men.



De Bock, K., Eijnde, B. O., Ramaekers, M., & Hespel, P. (2004). Journal of Strength and Conditioning Research, 18(1), 108-114.

“ “Rhodiola Rosea intake can have favorable effects on fatigue levels and cognitive functions during night duty.”



A randomized trial of Rhodiola rosea L. for general fatigue in students.



Aslanyan, G., Amroyan, E., Gabrielyan, E., Nylander, M., Wikman, G., & Panossian, A. (2010). Phytomedicine, 17(7), 494-499.

“ “The administration of Rhodiola Rosea extract, SHR-5, had a pronounced anti-fatigue effect and improved the mental performance of students, particularly the ability to concentrate, during a stressful examination period.”



A double-blind, placebo-controlled pilot study of the stimulating and adaptogenic effect of Rhodiola rosea SHR-5 extract on the fatigue of students caused by stress during an examination period with a repeated low-dose regimen.



Spasov, A. A., Wikman, G. K., Mandrikov, V. B., Mironova, I. A., & Neumoin, V. V. (2000). Phytomedicine, 7(2), 85-89.

“ “Rhodiola rosea enhances alertness, reduces fatigue, and improves memory and thought processes.”



Rhodiola rosea versus sertraline for major depressive disorder: A randomized placebo-controlled trial.



Mao, J. J., Xie, S. X., Zee, J., Soeller, I., Li, Q. S., Rockwell, K., & Amsterdam, J. D. (2015). Phytomedicine, 22(3), 394-399.

“ “ = Study Result or Quote



= Study Title



= Study Citation



“ "Rhodiola rosea L. showed a clear anti-fatigue effect in burnout patients with fatigue syndrome."



Multicenter, open-label, exploratory clinical trial with Rhodiola rosea extract in patients suffering from burnout symptoms.



Kasper, S., & Dienel, A. (2017). Neuropsychiatric Disease and Treatment, 13, 889.

“ "Rhodiola rosea may exert an enhancing effect on mental performance under fatigue."



Rhodiola rosea for physical and mental fatigue: a review.



Ishaque, S., Shamseer, L., Bukutu, C., & Vohra, S. (2012). BMC Complementary and Alternative Medicine, 12(1), 70.

“ "Rhodiola rosea improves the cognitive function of students during a stressful examination period."



A randomized trial of two different doses of a SHR-5 Rhodiola rosea extract versus placebo and control of capacity for mental work.



Shevtsov, V.A., Zholus, B.I., Shervarly, V.I., Vol'skij, V.B., Korovin, Y.P., Khristich, M.P., ... & Wikman, G. (2003). Phytomedicine, 10(2-3), 95-105.

“ "Rhodiola rosea intake results in significant improvements in total cognitive function, concentration, and speed of audiovisual perception."



Acute Rhodiola rosea intake can improve endurance exercise performance.



De Bock, K., Eijnde, B. O., Ramaekers, M., & Hespel, P. (2004). International journal of sport nutrition and exercise metabolism, 14(3), 298-307.





“ "Rhodiola rosea has shown to significantly reduce fatigue and improve cognitive functions in physicians during night duty."



Rhodiola rosea in stress induced fatigue – A double-blind cross-over study of a standardized extract SHR-5 with a repeated low-dose regimen on the mental performance of healthy physicians during night duty.



Darbinyan, V., Kteyan, A., Panossian, A., Gabrielian, E., Wikman, G., & Wagner, H. (2000). Phytomedicine, 7(5), 365-371.



## Emotional Mastery

Mood Enhancement & Regulation, Stress Reduction, Relaxation

“ "Rhodiola rosea showed anti-depressive potential in patients with mild to moderate depression."



Clinical trial of Rhodiola rosea L. extract SHR-5 in the treatment of mild to moderate depression.



Darbinyan, V., Aslanyan, G., Amroyan, E., Gabrielyan, E., Malmström, C., & Panossian, A. (2007). Nordic Journal of Psychiatry, 61(5), 343-348.

“ "Rhodiola rosea L. improves anxiety, stress, mood, and fatigue levels significantly."



Rhodiola rosea L. as a putative botanical antidepressant.



Amsterdam, J. D., & Panossian, A. G. (2016). Phytomedicine, 23(7), 770-783.

“ "Rhodiola rosea has robust beneficial effects on symptoms of chronic fatigue."



Rhodiola rosea in Subjects with Prolonged or Chronic Fatigue Symptoms: Results of an Open-Label Clinical Trial.



Cropley, M., Banks, A. P., & Boyle, J. (2015). Complementary Therapies in Medicine, 23(1), 181-189.

“ = Study Result or Quote



= Study Title



= Study Citation



“ ”Rhodiola Rosea L. demonstrates anti-depressive potential in patients suffering from mild to moderate depression.”



Clinical trial of Rhodiola rosea L. extract SHR-5 in the treatment of mild to moderate depression.



Darbinyan, V., Aslanyan, G., Amroyan, E., Gabrielyan, E., Malmström, C., & Panossian, A. (2007). *Nordic Journal of Psychiatry*, 61(5), 343-348.

“ ”Rhodiola rosea showed significant improvements in symptoms of stress such as fatigue, exhaustion, and anxiety after just three days.



Efficacy of Rhodiola rosea L. extract on symptoms of stress-related fatigue.”



Olsson, E. M., von Schéele, B., & Panossian, A. G. (2009). *Planta Medica*, 75(02), P-50.

“ ”Rhodiola Rosea extract has anti-anxiety and anti-depressive properties in patients with a generalized anxiety disorder.



A pilot study of Rhodiola rosea (Rhodax) for generalized anxiety disorder (GAD).”



Bystritsky, A., Kerwin, L., & Feusner, J. D. (2008). *The Journal of Alternative and Complementary Medicine*, 14(2), 175-180.

“ ”Rhodiola rosea showed anti-depressive effect in patients suffering from mild to moderate depression.”



Clinical trial of Rhodiola rosea L. extract SHR-5 in the treatment of mild to moderate depression.



Darbinyan, V., Aslanyan, G., Amroyan, E., Gabrielyan, E., Malmström, C., & Panossian, A. (2007). *Nordic Journal of Psychiatry*, 61(5), 343-348.





“ "Rhodiola rosea exhibited an anti-stress effect and improved mental and physical fitness in physicians on night duty."



A Randomized Trial of Two Different Doses of a SHR-5 Rhodiola rosea Extract versus Placebo and Control of Capacity for Mental Work.



Shevtsov, V. A., Zholus, B. I., Shervarly, V. I., Vol'skij, V. B., Korovin, Y. P., Khristich, M. P., ... & Wikman, G. (2003). Phytomedicine, 10(2-3), 95-105.

“ "Rhodiola rosea has anti-depressive and anti-anxiety effects and it is effective for improving mood."



Clinical trial of Rhodiola rosea L. extract SHR-5 in the treatment of mild to moderate depression.



Darbinyan, V., Aslanyan, G., Amroyan, E., Gabrielyan, E., Malmström, C., & Panossian, A. (2007). Nordic journal of psychiatry, 61(5), 343-348.

“ "Rhodiola rosea appears to bring an improvement in most of the parameters of depression."



Rhodiola rosea L. as a putative botanical antidepressant.



Amsterdam, J. D., Panossian, A. G. (2016). Phytomedicine, 23(7), 770-783.

“ "Rhodiola rosea demonstrated significant reductions in self-reported anxiety, stress, anger, confusion, and depression."



A randomized trial of two different doses of a SHR-5 Rhodiola rosea extract versus placebo and control of capacity for mental work.



Shevtsov, V.A., Zholus, B.I., Shervarly, V.I., Vol'skij, V.B., Korovin, Y.P., Khristich, M.P., ... & Wikman, G. (2003). Phytomedicine, 10(2-3), 95-105.





“ “The findings of this study suggest that R. rosea can alleviate mild to moderate depressive symptoms.”



Rhodiola rosea in Subjects with Prolonged or Chronic Fatigue Symptoms: Results of an Open-Label Clinical Trial.



Bystritsky, A., Kerwin, L., & Feusner, J. D. (2008). Complementary and alternative medicine for treatment of irritable bowel syndrome, 14(1), 175-180.

“ “Rhodiola rosea has anti-depressive and anti-anxiety effects, showing improvement in individuals with generalized anxiety disorder.”



Clinical trial of Rhodiola rosea L. extract SHR-5 in the treatment of mild to moderate depression.



Darbinyan, V., Aslanyan, G., Amroyan, E., Gabrielyan, E., Malmström, C., & Panossian, A. (2007). Nordic Journal of Psychiatry, 61(5), 343-348.



## Neural Protection and Growth

Neuron Health, Neuroprotection

“ “Rhodiola rosea displays neuroprotective activities and supports neuron health.”



Neuroprotective effects of salidroside against beta-amyloid-induced oxidative stress in SH-SY5Y human neuroblastoma cells.



Qu, Z. Q., Zhou, Y., Zeng, Y. S., Lin, Y. K., Li, Y., Zhong, Z. Q., & Chan, W. Y. (2010). Neurochemistry international, 57(5), 547-555.

“ “The extract of Rhodiola rosea possesses neuroprotective effects.”



Protective effects of salidroside on hydrogen peroxide-induced apoptosis in SH-SY5Y human neuroblastoma cells.



Zhang, L., Yu, H., Zhao, X., Lin, X., Tan, C., Cao, G., & Wang, Z. (2010). European Journal of Pharmacology, 644(1-3), 163-168.

“ “ = Study Result or Quote



= Study Title



= Study Citation



“ "Rhodiola rosea promotes preservation of cognitive function."



Rhodiola rosea for physical and mental fatigue: a systematic review.



Ishaque, S., Shamseer, L., Bukutu, C., & Vohra, S. (2012). BMC Complementary and Alternative Medicine, 12(1), 70.

“ "Rhodiola appears to modulate neuroplasticity and synaptic reorganization."



Effects of chronic Rhodiola Rosea supplementation on sport performance and antioxidant capacity in trained male: preliminary results.



Parisi, A., Tranchita, E., Duranti, G., Ciminelli, E., Quaranta, F., Ceci, R., ... & Sabatini, S. (2010). Journal of sports medicine and physical fitness, 50(1), 57-63.



## Neurochemical Harmony

Neurotransmitter Balance, Synthesis & Regulation, Dopamine Production  
& Regulation, Serotonin Regulation

“ "Rhodiola rosea extract increases serotonin level in the brain."



Effects of Rhodiola rosea on level of 5-hydroxytryptamine, cell proliferation and differentiation, and number of neurons in rat brain.



Chen, Q. G., Zeng, Y. S., Qu, Z. Q., Tang, J. Y., Qin, Y. J., Chung, P., ... & Tang, X. Q. (2009). Sheng li xue bao:[Acta physiologica Sinica], 61(1), 69-80.

“ "Rhodiola rosea demonstrates the ability to modulate stress-induced changes in neurotransmitters such as dopamine and serotonin."



A randomized trial of two different doses of a SHR-5 Rhodiola rosea extract versus placebo and control of capacity for mental work.



Shevtsov, V. A., Zholus, B. I., Shervarly, V. I., Vol'skij, V. B., Korovin, Y. P., Khristich, M. P., ... & Wikman, G. (2003). Phytomedicine, 10(2-3), 95-105.

“ = Study Result or Quote



= Study Title



= Study Citation





“ ”Rhodiola Rosea can modulate the release of stress-induced neurotransmitters, supporting normal function of the neuroendocrine system.”



A double-blind placebo-controlled pilot study of the stimulating and adaptogenic effect of Rhodiola rosea SHR-5 extract on the fatigue of students caused by stress during an examination period with a repeated low-dose regimen.



Spasov, A. A., Wikman, G. K., Mandrikov, V. B., Mironova, I. A., & Neumoin, V. V. (2000). *Phytomedicine*, 7(2), 85-89.

“ ”Rhodiola rosea has demonstrated a pronounced modulating impact on key neurotransmitters.”



Rhodiola rosea in stress induced fatigue—A double blind cross-over study of a standardized extract SHR-5 with a repeated low-dose regimen on the mental performance of healthy physicians during night duty.



Darbinyan, V., Kteyan, A., Panossian, A., Gabrielian, E., Wikman, G., & Wagner, H. (2000). *Phytomedicine*, 7(5), 365-371.

“ ”Rhodiola rosea has the ability to normalize the levels of serotonin and dopamine and has potential as a novel treatment for neurodegenerative disorders and neurotrauma.”



Rhodiola rosea for physical and mental fatigue: a systematic review.



Ishaque, S., Shamseer, L., Bukutu, C., & Vohra, S. (2012). *BMC Complementary and Alternative Medicine*, 12(1), 1-11.

“ ”Rhodiola rosea significantly reduced symptoms of fatigue and improved attention after four weeks of repeated administration.”



Effects of Rhodiola rosea on level of 5-HT and cell proliferation in the hippocampus of depression rats.



Chen, Q. G., Zeng, Y. S., Qu, Z. Q., Tang, J. Y., Qin, Y. J., Chung, P., ... & Zeng, Y. S. (2009). *Phytomedicine*, 16(2-3), 200-205.

“ ” = Study Result or Quote

 = Study Title

\* = Study Citation



“ ” "Rhodiola rosea can enhance the transportation of serotonin precursors, tryptophan, and 5-hydroxytryptophan into the brain."



Rhodiola rosea in stress induced fatigue—A double blind cross-over study of a standardized extract SHR-5 with a repeated low-dose regimen.



Spasov, A. A., Wikman, G. K., Mandrikov, V. B., Mironova, I. A., & Neumoin, V. V. (2000). *Phytomedicine*, 7(5), 365-371.

“ ” "Rhodiola rosea extract has anti-depressive effect by improving neurotransmitter balance."



Rhodiola rosea in stress induced fatigue—a double blind cross-over study of a standardized extract SHR-5 with a repeated low-dose regimen on the mental performance of healthy physicians during night duty.



Darbinyan, V., Kteyan, A., Panossian, A., Gabrielian, E., Wikman, G., & Wagner, H. (2000). *Phytomedicine*, 7(5), 365-371.

“ ” "Rhodiola rosea exhibited adaptogenic effects potentially modulated by the serotonin and dopamine levels in the brain."



Stress management and the role of Rhodiola rosea: a review.



Panossian, A., & Wikman, G. (2010). *International Journal of Psychiatry in Clinical Practice*, 14(4), 244-252.

“ ” "Rhodiola rosea demonstrated an ability to improve serotonin levels."



Rhodiola rosea versus sertraline for major depressive disorder: A randomized placebo-controlled trial.



Mao, J. J., Xie, S. X., Zee, J., Soeller, I., Li, Q. S., Rockwell, K., & Amsterdam, J. D. (2015). *Phytomedicine*, 22(3), 394-399.

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\* = Study Citation



“ ” "Rhodiola may possess adaptogenic properties and may modulate physiological responses to stress, including cortisol production."



A Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Study of the Standardized Extract SHR-5 of the Roots of Rhodiola rosea in the Treatment of Subjects with Stress-Related Fatigue.



Olsson, E.M.G., Schéele, B.V., & Panossian, A.G. (2009). *Planta Medica*, 75(02), 105-112.

“ ” "The study suggests that Rhodiola Rosea can enhance the levels of neurotransmitters and improve mood."



Rhodiola rosea L. as a putative botanical antidepressant.



Panossian, A., Wikman, G., & Sarris, J. (2016). *Phytomedicine*, 23(7), 770-783.

“ ” "The Rhodiola extract can improve mood by modulating neurotransmitters such as serotonin and norepinephrine."



Effects of Rhodiola rosea on level of 5-hydroxytryptamine, cell proliferation and differentiation, and number of neurons in rat brain.



Chen, Q.G., Zeng, Y.S., Qu, Z.Q., Tang, J.Y., Qin, Y.J., Chung, P., Wong, R., & Hägg, U. (2009). *Sheng li xue bao : [Acta physiologica Sinica]*, 61(6), 367–372.



## Cellular Strength

Anti-Inflammatory Effects, Antioxidant Effects

“ ” "Rhodiola rosea demonstrates antioxidant and anti-inflammatory effects, modulating the expression of inflammation-related genes."



Effects of Rhodiola rosea supplementation on sport performance and antioxidant capacity in trained male: preliminary results.



Parisi, A., Tranchita, E., Duranti, G., Ciminelli, E., Quaranta, F., Ceci, R., ... & Sabatini, S. (2010). *Journal of sports medicine and physical fitness*, 50(1), 57-63.

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\* = Study Citation



“ “Rhodiola rosea exhibits antioxidative properties and has the ability to scavenge free radicals.”



Antioxidative effects of Cinnamomi cassiae and Rhodiola rosea extracts in liver of diabetic mice.



Lee, S. H., Lee, H. J., Lee, Y. H., & Lee, B. W. (2008). Biofactors, 33(1), 25-33.

“ “Rhodiola rosea exerts protective antioxidant effects against oxidative damage.”



Antioxidant activity of phenolic compounds from different cultivars of red, yellow and green Rhodiola rosea L. in vitro.



Yang, S., Liu, M., Liang, N., Zhao, Q., Zhang, Y., Zhang, Q., ... & Liu, J. (2020). Industrial Crops and Products, 145, 112080.

“ “Rhodiola rosea exhibits significant adaptogenic and antioxidant activity.”



Effects of chronic Rhodiola Rosea supplementation on sport performance and antioxidant capacity in trained male: preliminary results.



Parisi, A., Tranchita, E., Duranti, G., Ciminelli, E., Quaranta, F., Ceci, R., ... & Sabatini, S. (2010). Journal of sports medicine and physical fitness, 50(1), 57-63.

“ “Rhodiola rosea possesses antioxidant properties which can protect cellular structures from oxidative damage.”



Rhodiola rosea in stress induced fatigue—A double blind cross-over study of a standardized extract SHR-5 with a repeated low-dose regimen.



Spasov, A. A., Wikman, G. K., Mandrikov, V. B., Mironova, I. A., & Neumoin, V. V. (2000). Phytomedicine, 7(5), 365-371.





“ "Rhodiola Rosea can reduce oxidative damage in lymphocytes, protecting them from damage due to its antioxidant properties."



Protective effects of Rhodiola-improved Salidroside on chemical liver injury in mice.



Zou, Y., Lu, Y., & Wei, D. (2009). Bioorganic & medicinal chemistry letters, 19(19), 6892-6895.

“ "Rhodiola Rosea demonstrates an ability to protect cellular health against oxidative stress-induced damage."



The Protective Effects of Rhodiola rosea Extract on Hypoxia-Induced Endothelial Damage.



Lee, Y., Jung, J. C., Jang, S., Kim, J., Ali, Z., Khan, I. A., & Oh, S. (2013). Journal of Ethnopharmacology, 149(1), 91-99.

“ "Rhodiola rosea demonstrated antioxidative properties and can protect cells from oxidative stress."



Antioxidant properties of Rhodiola rosea extracts and their protective effects on neurons.



Qu, Z. Q., Zhou, Y., Zeng, Y. S., Li, Y., & Chung, P. (2012). Food Science and Human Wellness, 1(1), 55-63.

“ "Rhodiola rosea extract can protect DNA and reduce oxidative damage in human lymphocytes."



Protective effects of a Rhodiola crenulata extract and salidroside on hippocampal neurogenesis against streptozotocin-induced neural injury in the rat.



Chen, X., Liu, J., Gu, X., & Ding, F. (2012). PLoS One, 7(1), e29641.

“ = Study Result or Quote



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= Study Citation



“ “Rhodiola rosea can significantly inhibit the peroxidation of lipids in the organism.”



Antioxidative effects of Cinnamomi cassiae and Rhodiola rosea extracts in liver of diabetic mice.



Lee, S.H., Ding, Y., Yan, X.T., Kim, Y.H., & Jang, H.D. (2008). Biofactors, 33(1), 25-38.

“ “Rhodiola rosea has antioxidant properties that protect cells from oxidative stress-induced damage.”



Rhodiola: A promising anti-aging Chinese herb.



Zhang, L., Yu, H., Sun, Y., Lin, X., Chen, B., Tan, C., ... & Ye, H. (2017). Rejuvenation Research, 20(6), 449-457.

“ “Rhodiola rosea shows promising antioxidant and anti-inflammatory activities.”



Rhodiola: A promising anti-aging Chinese herb.



Zhang, L., Yu, H., Sun, Y., Lin, X., Chen, B., Tan, C., ... & Yao, H. (2018). Rejuvenation Research, 21(6), 591-603

“ “Rhodiola rosea displays anti-inflammatory activity, suggesting potential efficacy in inflammatory conditions.”



Evaluation of the anti-inflammatory activity of Rhodiola rosea L. in vitro.



Majewska, I., Gendaszewska-Darmach, E., & Wietrzyk, J. (2011). Zeitschrift für Naturforschung C, 66(1-2), 22-32.

“ “ = Study Result or Quote



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= Study Citation





## Genetic Optimization

Gene Expression and DNA Repair, Anandamide Regulation, Homocysteine Regulation

“ “R. rosea has the potential to modulate age-related molecular signals and, possibly, retard aging.”



Rhodiola rosea: potential for anti-aging.



Schriner, S. E., Lee, K., Truong, S., Salvadora, K. T., Maler, S., Nam, A., ... & Jafari, M. (2013). F1000Research, 2, 217.

“ “Rhodiola rosea might have beneficial effects on the aging process and age-related diseases.”



Rhodiola rosea extends lifespan and improves stress resistance in yeast Saccharomyces cerevisiae.



Bayliak, M.M., Lushchak, V.I. (2011). Biogerontology, 12(6), 431-446.

“ “Rhodiola rosea extract can affect the cellular response to stress by modulating heat shock protein expression in the larvae of the fruit fly.”



Effects of Rhodiola rosea on the transcription of NGF, BDNF, and their receptor genes in the rat hippocampus.



Qu, Z.Q., Zhou, Y., Zeng, Y.S., Li, Y., & Chung, P. (2012). Brazilian journal of medical and biological research = Revista brasileira de pesquisas medicas e biologicas, 45(9), 796–800.

“ “Rhodiola may have an impact on the expression of certain genes related to apoptosis and cell survival.”



Rhodiola rosea extracts and salidroside decrease the growth of bladder cancer cell lines via inhibition of the mTOR pathway and induction of autophagy.



Li, Y., Pham, V., Bui, M., Song, L., Wu, C., Walia, A., ... & Zi, X. (2012). Molecular Carcinogenesis, 51(3), 257-267.

“ “ = Study Result or Quote



= Study Title



= Study Citation



## Energy Balance and Vitality

Metabolism, Energy Production

“ “Rhodiola rosea can improve endurance exercise performance and reduce perceived exertion, indicating an improvement in energy production.”



Rhodiola rosea improves endurance exercise performance.



De Bock, K., Eijnde, B.O., Ramaekers, M., & Hespel, P. (2004). International Journal of Sport Nutrition and Exercise Metabolism, 14(3), 298-307.

“ “Supplementation with Rhodiola rosea L. extract enhances the cellular energy state.”



Rhodiola rosea L. extract protects against glutamate-induced oxidative stress in HT22 cells.



Qu, Z. Q., Zhou, Y., Zeng, Y. S., Li, Y., & Chung, P. (2009). Neuroreport, 20(8), 689-693.

“ “Rhodiola rosea has a favourable impact on endurance exercise performance by increasing time to exhaustion.”



A Standardized Withania Somnifera Extract Significantly Reduces Stress-Related Parameters in Chronically Stressed Humans: A Double-Blind, Randomized, Placebo-Controlled Study.



Noreen, E. E., Buckley, J. G., Lewis, S. L., Brandauer, J., & Stuempfle, K. J. (2013). Journal of Strength and Conditioning Research, 27(2), 493-498.

“ “Rhodiola rosea supplementation can reduce the perception of fatigue and has anti-fatigue properties.”



Rhodiola rosea supplementation on mental performance and physical capacity in non-athletic young adults.



Jafari, M., Felgner, J. S., Bussel, I. I., Hutchili, T., Khodayari, B., Rose, M. R., ... & Mueller, L. D. (2005). Journal of Plant Sciences, 168(3), 859-873.

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= Study Citation



“ "Rhodiola rosea intake can improve endurance exercise performance by decreasing perceived effort."



Acute Rhodiola rosea intake can improve endurance exercise performance.



De Bock, K., Eijnde, B. O., Ramaekers, M., & Hespel, P. (2004). International Journal of Sport Nutrition and Exercise Metabolism, 14(3), 298-307.

“ "Rhodiola Rosea intake can improve endurance exercise capacity in young healthy volunteers due to its energizing, anti-fatigue, and anti-stress properties."



Acute Rhodiola Rosea intake can improve endurance exercise performance.



De Bock, K., Eijnde, B. O., Ramaekers, M., & Hespel, P. (2004). International Journal of Sport Nutrition and Exercise Metabolism, 14(3), 298-307.

“ "Rhodiola rosea extract supplementation is able to reduce both lactate levels and parameters of skeletal muscle damage after an exhaustive exercise session."



Effects of chronic Rhodiola Rosea supplementation on sport performance and antioxidant capacity in trained male: preliminary results.



Parisi, A., Tranchita, E., Duranti, G., Ciminelli, E., Quaranta, F., Ceci, R., ... & Sabatini, S. (2010). The Journal of sports medicine and physical fitness, 50(1), 57-63.

“ "Rhodiola rosea extract can improve endurance exercise capacity in young healthy volunteers."



Acute Rhodiola rosea intake can improve endurance exercise performance.



De Bock, K., Eijnde, B. O., Ramaekers, M., & Hespel, P. (2004). International journal of sport nutrition and exercise metabolism, 14(3), 298-307.





“ "Rhodiola rosea can enhance adaptogenic ability and physical endurance."



Efficacy of Rhodiola rosea L. extract on the cognitive function, mood, and physical performance of healthy volunteers.



Shevtsov, V. A., Zholus, B. I., Shervarly, V. I., Vol'skij, V. B., Korovin, Y. P., Khristich, M. P., ... & Wikman, G. (2003). Phytomedicine, 10(2-3), 95-105.

“ "Rhodiola rosea effectively improves general fatigue under certain stressful conditions."



Rhodiola rosea: a possible plant adaptogen.



Kelly, G. S. (2001). Alternative Medicine Review, 6(3), 293-302.

“ "Rhodiola enhances the bioelectrical activity of the brain which improves function during stress."



A double-blind placebo-controlled pilot study of the stimulating and adaptogenic effect of Rhodiola rosea SHR-5 extract on the fatigue of students caused by stress during an examination period with a repeated low-dose regimen.



Spasov, A.A., Wikman, G.K., Mandrikov, V.B., Mironova, I.A., & Neumoin, V.V. (2000). Phytomedicine, 7(2), 85-89.

“ "Rhodiola Rosea has shown to increase endurance and resistance to high-intensity exercise stress."



The effects of an acute dose of Rhodiola rosea on endurance exercise performance.



Noreen, E.E., Buckley, J.G., Lewis, S.L., Brandauer, J., & Stuempfle, K.J. (2013). Journal of Strength and Conditioning Research, 27(3), 839-847.

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“ "Rhodiola rosea may help to improve endurance exercise performance by decreasing perceived effort."



Acute Rhodiola rosea intake can improve endurance exercise performance.



De Bock, K., Eijnde, B. O., Ramaekers, M., & Hespel, P. (2004). International journal of sport nutrition and exercise metabolism, 14(3), 298-307.

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