

# SENACTIV®

## Muscle Energy & Regeneration

Senactiv® helps professional athletes, bodybuilders, and every fitness enthusiast in between exercise longer and harder. Experience an increased energy supply through optimal glycogen utilization in muscles, clearing unfit cells, and regenerating with healthy new cells.

### THE FUTURE STANDARD FOR HUMAN PERFORMANCE

Introducing Senactiv®, the first senolytic compound in the market scientifically-validated to activate phagocytic macrophage through senescent cell clearance in human muscle tissue after aerobic exercise.

Senactiv® is a US patented 100% natural compound composed of two highly purified and fractionated extracts from *Panax notoginseng* and *Rosa roxburghii* produced by a NuLiv Science pharmaceutical-grade extraction and processing technology.



GRAS-AFFIRMED



INGREDIENT

INFORMED INGREDIENT CERTIFIED



VEGAN



NON-GMO



NATURAL



ANTIOXIDANT RICH

### Discover the Innovation of Sports Nutrition

Senactiv® impacts muscle energy and regeneration when supplemented before exercising.

#### MUSCLE ENERGY

Exercise muscles longer and harder with a 47% boost in citrate synthase activity



#### MUSCLE REGENERATION

Remove old unfit cells and replenish with new healthy muscle cells



#### RECOVERY

Get back into workouts more effectively with a 35% reduction in IL-6, an inflammation biomarker



#### ACTIVE LIFESTYLE

Be more. Do more. Senactiv® gives athletes the competitive advantage



## The Path to Competitive Advantage is Here

Senactiv® is clinically validated in 2 *in-vivo* and 4 published human clinical studies evaluating 6 different interventions in:

- [PLOS One](#)
- [Journal of Ginseng Research](#)
- [Journal of the International Society of Sports Nutrition](#)
- [Evidence-based Complementary and Alternative Medicine](#)
- [Journal of Functional Foods](#)
- [Journal of Science in Sport and Exercise](#)
- [Aging](#)

### Clinical Performance

Senactiv® is proven to elevate human performance with stellar results.

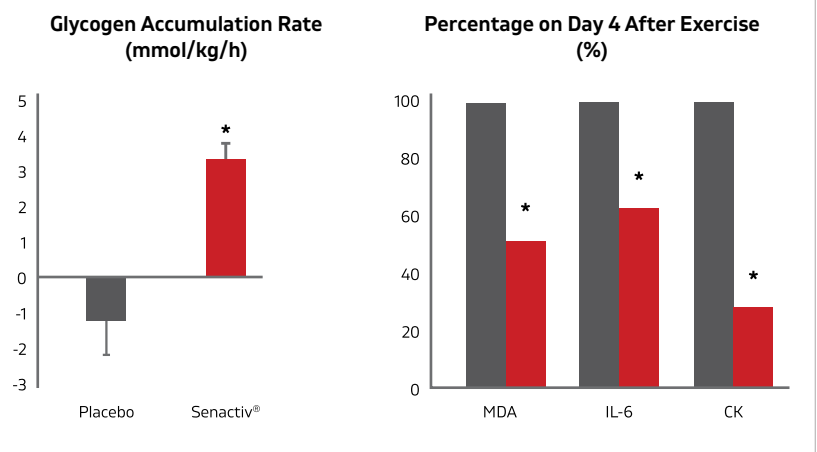
View all study references at [www.nulivscience.com/ingredients/senactiv](http://www.nulivscience.com/ingredients/senactiv)

\*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

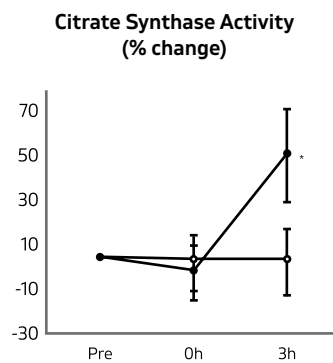
#### Legend

- Placebo
- Placebo
- Senactiv®
- Senactiv®

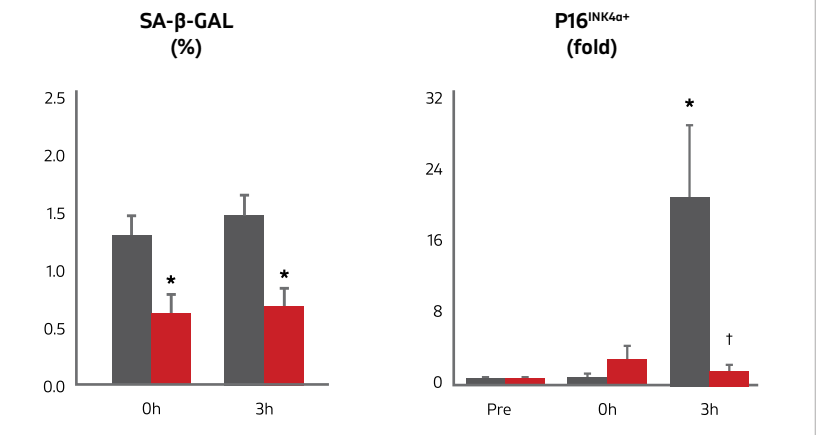
**Better recovery**, indicated by speeding up muscle fatigue recovery by boosting glycogen recovery rate of exercised muscle tissues by 373% at the end of 3rd hour and a reduction in muscle tissue inflammation after 4 days.



**More energy**, indicated by increasing citrate synthase in muscle tissue by 47% after a 60 minute exercise at 70% VO<sub>2</sub>max.



**Senolytic activation**, indicated by decreasing SA-β-Gal by 63% in muscle tissue. In addition, marked increases in p16<sup>INK4a</sup> protein expression of endothelial progenitor cells in skeletal muscle.





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## Muscle Energy & Regeneration

Senactiv® helps athletes, body builders, gym goers, weekend warriors, and people of all ages to exercise longer and harder and engage in increased physical activity by increasing the energy supply, by eliminating the unfit (senescent) cells, and by regenerating new cells in their muscles.

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