

Laxogenin

Background

As a natural, plant-derived compound, laxogenin promotes a continuous and uninterrupted anabolic, or muscle-building period for users. Initially, the supplement's use was common among bodybuilders who wanted to maintain consistent strength patterns. However, many athletes and those recovering from injury and surgery soon discovered that this plant-derived compound exhibited superior restorative properties. Since laxogenin is prepared from plant sterols, it has evolved to survive in harsh environments and inclement conditions (e.g., gastrointestinal tract), supporting exceptional bioavailability.⁶ Laxogenin's mechanism of action is based on its classification in the plant hormone group known as brassinosteroids. Primary reported use effects are strength gain, increase in lean muscle mass, and reduction in visceral fat. Additionally, this product is associated with accelerated post-injury healing and has been employed as adjunctive therapy to amplify treatment effects of hormone replacement therapy (HRT) and medical weight-loss programs.

Research

There is little human clinical trial data available on laxogenin. Beer & Keiler (2022) found evidence to support androgenic properties of laxogenin, synthetic spirostane-type steroid in an in vitro bioassay.¹ Deng et al. (2022) observed laxogenin to stimulate tomato seed germination and seedling growth in a dose-dependent manner, offering support for the natural spirostanol to promote growth effects in plants, through bolstering lignin (organic polymers that form important structural materials in the cell walls of most plants) formation.² There are also findings to support that brassinosteroids, the group of steroid phytohormones containing laxogenin, play a significant role in facilitating pesticide metabolism in plants.⁷ Exogenous supplementations with naturally plant manufactured steroidal sex hormones promotes substantial morphological and physiological responses in both plants and animals.^{8, 9, 10} Shpakovski et al. (2017) found evidence of crossover potential and similarities in biosynthesis systems of steroid hormones in plants and animals (progesterone is common to both plants and animals) offering support for laxogenin to potentially promote human anabolic effects.¹⁰ Various researchers have found evidence to support a growing list of potential therapeutic roles involving brassinosteroids related to their bioactivities in synthetic compound preparations including, antiangiogenesis, antibacterial, anticancerous, anti-chloesterolemic, antifungal, antigenotoxic, antiproliferative, and antiviral properties.^{12, 13, 14, 15}

Conclusion

5-Alpha-Hydroxy-Laxogenin, or simply laxogenin, is a plant steroid belonging to the compound group known as brassinosteroids. As a naturally occurring anabolic compound, laxogenin has been recognized in the supplement community for two decades, however, has gained a recent surge in popularity. The structure of laxogenin is like the herbal extract ecdysterone, a phytochemical considered to be a factor in the exceptional strength ratio of insects.¹¹ In nature, they are a group of powerful hormones that play important roles in many phases of plant growth, including promotion of several protective and strengthening characteristics.^{3, 4, 5} Research suggests that

while these hormones may interact with other hormones to actuate growth effects, they initiate at lower levels. Once attached to membrane receptors, brassinosteroids can positively affect metabolic changes and increase or attenuate gene expression. Applying similar logic, as a human-based supplement, laxogenin is assumed to vastly increase protein synthesis and speed up both muscle growth and recovery.

References

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