



WORLD'S BEST ASHWAGANDHA

FROM THE ASHWAGANDHA EXPERTS. THAT'S ALL WE DO.

Ingredient Overview



WHAT IS ASHWAGANDHA?

Ashwagandha (*Withania somnifera*) is the flagship herb of Ayurveda that has been used for over 4,000 years. Traditionally, only the root part of the plant is used for its rejuvenating and adaptogenic purposes. Ashwagandha is an adaptogen that supports the body's ability to adapt to a multitude of physical, emotional, and biological stressors. As an adaptogen, ashwagandha neither stimulates nor sedates, but brings homeostasis to both body and mind. It is safe for all ages and has stood the test of time for improving emotional, physical and mental well-being.

KSM-66® ASHWAGANDHA

KSM-66 Ashwagandha, by Ixoreal Biomed, is a branded, full-spectrum root only extract with the highest concentration of bioactives available on the market today. It is created via an aqueous-based, Green-Chemistry process, using no alcohol or any chemical solvent.

KSM-66 Ashwagandha has been clinically proven to:

- Help reduce stress and stress-related food cravings*
- Help improve cognitive function and enhance quality of sleep*
- Help improve endurance, strength and immune function*
- Help enhance sexual performance health in both men and women and testosterone in men*

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



ROOTS FOR HEALTH, LEAVES FOR COMPOST



Despite ashwagandha's long history of using only roots, there is a trend observed among certain ashwagandha suppliers to incorporate more leaf material into their products. This has created confusion and misinformation surrounding the parts of the plant and their respective uses specifically the roots and leaves. Thousands of years of traditional practice, bolstered by numerous modern independent clinical trials, confirms only the root of ashwagandha as the optimal choice for adaptogenic and rejuvenation benefits.

This is why KSM-66 Ashwagandha extract uses only the root part of the plant.

That's not to say the leaves of ashwagandha have no use (far from it). Here are six reasons why we use only the roots in our extract:

- 1. Traditional Use:** Thousands of years of traditional practice have focused solely on using ashwagandha's roots for internal consumption.
- 2. Government Advisory:** The Government of India has strictly advised to refrain from using ashwagandha leaves, citing unavailability of substantial safety and efficacy data on the leaves.
- 3. Global Pharmacopoeial Standards:** Only ashwagandha roots are the standard in global pharmacopeias, including the Indian, British, and United States Pharmacopeias as well as various globally-accredited monographs, including the World Health Organization (WHO) and Health Canada.
- 4. Economic Empowerment of Farmers:** Ashwagandha leaves are ~100x cheaper than roots. By incorporating more aerial parts (and less root extract) into ashwagandha formulations, ingredient houses substantially increase their profit margin. However, farmers are not making any profit from leaf sales, as well as denying farmers the much-needed compost for the soil.
- 5. Modern Research:** The predominant majority (125 of 126) of independent published clinical trials today use only root-based formulations.
- 6. Sustainability and Composting:** Leaves serve a critical role in the sustainability of ashwagandha. Dry leaves (as well as stems) become compost for the next season's ashwagandha crop, helping replenish the organic content of soil. To put it another way, roots are for health and leaves are for compost.

WHY KSM-66® IS THE WORLD'S BEST ASHWAGANDHA?

1. KSM-66 has the most extensive set of research studies and clinical trials.

Ixoreal is the industry leader in research and clinical trials investigating the effect of ashwagandha, with 48 studies: 24 published studies, 9 additional studies completed and in peer review, and 17 ongoing studies. It collaborates with major academic and research institutes. All of Ixoreal-partnered clinical studies follow the gold standards of substantiation: randomized, double-blind, placebo-controlled designs.

For a herb to operate at a systemic level, it needs a complex blend of phytochemicals with a wide range of actions on the human body. ashwagandha is one of the few herbs in the botanical world with a complex blend of this type. Our research studies focus on the main applications of ashwagandha as listed below:



Stress

In four published studies, KSM-66 ashwagandha root extract showed a statistically significant reduction in stress, stress-related food cravings, and serum cortisol level. KSM-66 Ashwagandha also resulted in a significant increase in Oxford Happiness Questionnaire scores, relaxation, mood, general well-being, and individual resistance to stress.



Memory and Cognitive Function

Two studies have shown that KSM-66 Ashwagandha improves immediate and general memory, executive memory, attention, and information processing speed



Sleep

Four published studies demonstrated that KSM-66 Ashwagandha improves sleep quality, sleep efficiency, total sleep time, total time in bed, and mental alertness on rising and significantly reduces sleep onset latency and wake after sleep onset.



Endurance

In two published studies, KSM-66 Ashwagandha supplementation resulted in a statistically significant increase in cardiorespiratory endurance via improvement in VO2 Max values.



Strength

In two published studies, KSM-66 Ashwagandha supplementation demonstrated a statistically significant increase in muscle strength, muscle size, and muscle recovery.



Testosterone

Four published studies have shown that KSM-66 Ashwagandha supplementation can improve healthy testosterone levels in men.



Women's Health

In three published studies on sexual function and two published studies on menopause, KSM-66 Ashwagandha supplementation resulted in increased sexual arousal, lubrication, orgasm and satisfaction, and reduction in the climacteric symptoms and hot flashes respectively.



Children's Health

In two studies, KSM-66 Ashwagandha supplementation improves attention, cognitive function, focus, mental performance, behavior, calmness and quality of sleep, while reducing stress and fatigue in children.



Thyroid Health

Three studies have shown that KSM-66 Ashwagandha supplementation normalizes thyroid indices in subjects with subclinical hypothyroidism.



Senior Citizens

Two studies conducted with elderly adults have shown that KSM-66 Ashwagandha improves general well-being, sleep, and mental alertness on rising, indicating KSM-66 Ashwagandha has the potential to counter most of the prominent aging-related issues.



Men's Health

Two published studies have shown that KSM-66 supplementation increases sex drive, sexual arousal, and satisfaction, whereas another published study has shown increase in sperm concentration, semen volume and sperm motility.



Pet Health

Two studies in horses, two studies in dogs, and one in cats demonstrates that KSM-66 Ashwagandha is safe and it leads to a significant reduction in stress, separation and anxiety and stress-related behaviors as well as an improvement in joint health, immunity and general well-being.

2. KSM-66 is the highest-concentration branded full-spectrum root extract available on the market.

A full-spectrum extract is an extract which maintains the balance of the various constituents as in the original herb, without over-representing any one constituent. The ashwagandha herb's efficacy is believed to be derived from a complex blend of active constituents, mainly alkaloids like withanine, somniferine, tropine and steroidal lactones called withanolides. All these constituents need to be present approximately in their natural proportions, and hence it is important for an extract to be full-spectrum. Ixoreal managed to create a process that surmounts these challenges after many years of R&D. KSM-66 Ashwagandha is standardized to the highest percentage of withanolides on the market today, >5% by HPLC, derived only from the roots of the plant.

Let Herbs Be Herbs, Not Drugs

Ashwagandha root and root extracts have demonstrated efficacy for thousands of years. The unique ratio of root compounds proves beneficial for enhancing health in many key ways. Today some companies are producing ashwagandha extracts which inflate withanolide value while fundamentally distorting the natural ratio of beneficial compounds. Having a higher percentage of withanolides is not desirable as it would make the extract pharmaceutical drug-like with more emphasis on single molecules. We're not interested in creating drugs. We stand by the natural balance of ingredients found in the root.



3. The Production of KSM-66 has tight vertical integration for high quality and price advantage.

Ixoreal is the only major branded ashwagandha manufacturer in the world to own the entire value chain in producing the extract. Ixoreal has its own farms, production facilities, testing laboratories, research center and distribution. Nothing is outsourced and no middlemen are involved. As a result, Ixoreal is unmatched in its ability to deliver high-quality ashwagandha with steady supply and batch-to-batch consistency. A nice side effect of having no middlemen is that KSM-66 is priced considerably lower than what one might expect for such a premium product.

4. KSM-66 has exemplary standards in safety and quality

The manufacturing unit of KSM-66 is pharma grade, with state-of-the-art clean room facilities using world class production and quality assurance processes. KSM-66 and its manufacturing have gone through the most extensive inspections and safety assessments in our industry and has 41 quality certifications, the highest of any botanical ingredient on the market.



5. KSM-66 has a neutral taste and high solubility

Unlike other ashwagandha extracts that are very bitter to taste, KSM-66 is neutral tasting and highly soluble, making it a star choice for functional food and beverage makers.

SUSTAINABILITY AND CSR

We, Ixoreal Biomed, were founded with corporate social responsibility at the core of what we do. We have always been a pioneer in environmental protection and promoter of sustainability. Being an organic-certified operator, we make sure that no chemicals or synthetic fertilizers are used on our farms or in our production process. A large part of Ixoreal Biomed's mission and vision entails the elimination of every action that might harm the environment including the emission of harmful gases.

We are 'Friends of the Earth' certified, which promotes sustainable agricultural and breeding practices that have been developed within the guidelines of the Sustainability Assessment of Food and Agriculture Systems (SAFA) of the Food and Agriculture Organization of the United Nations (FAO) and whose principles are based on the safeguarding and protection of the entire ecosystem.

Ixoreal Biomed is a vertically-integrated company, and we own our farms, labs, manufacturing, and distribution. Through our farms and production facilities, we ensure employment opportunities to local peoples and encourage women's empowerment. Workers on our farms earn on average 10-20% more than other workers in the region. We have an expansive notion of "family", to include not just the owners but also the employees and their relatives as well as people living in the towns and communities that we occupy.

Ixoreal Biomed is enthusiastic about supporting human capital and traditional livelihoods in the areas we operate. We steward social outreach and charity programs that prioritize health and education in the local communities by establishing schools, colleges, hospitals, community centers and parks.

TRACEABILITY

Ixoreal Biomed, the creators of KSM-66 Ashwagandha has set standards for supply chain transparency by partnering with TagOne, developers of Traceability Management Systems for supplements and natural products with blockchain capability.

This has led to the traceability of Ixoreal's famed KSM-66 Ashwagandha back to its farmers to validate product quality and provenance. Ixoreal has always been focused on sourcing sustainably grown ashwagandha from its farms and building a culture that ensures both the environment and farmers are treated ethically. To capture and validate the ashwagandha journey from source to table, Ixoreal is using TagOne to share their farm and farmer traceability information, certifications, photos and videos, and lot quality reports with their customers using a simple to use QR code technology.





Children & Education

Women Empowerment



Health Care

Environment



APPLICATIONS



1

Dietary Supplements

KSM-66 Ashwagandha can be utilized as a standalone or as a complementary ingredient in herbal, phytopharmaceutical, and dietary supplement formulations.



2

Food and Beverages

KSM-66 Ashwagandha is a self-affirmed GRAS (Generally Regarded as Safe) ingredient, qualified by a reputed panel of toxicologists. KSM-66 has a neutral taste and is not bitter, therefore it is an excellent choice for use in food and beverages.



3

Sports and Nutrition

KSM-66 is a very effective form of ashwagandha for athletes who train and compete at peak levels. It enhances energy and endurance, improves muscle size, strength and assists in muscle recovery, improves mental function, alertness and oxygen usage.



4

Pet Health

KSM-66 Ashwagandha is an excellent choice for pet supplement manufacturers because it is clinically proven to reduce stress and disease state and to increase calmness, cognition, immune function, and joint health in pets. It blends well with capsules, soft chews, powders, tinctures, treats, tablets, pellets, and various types of pet supplements.



5

Personal Care

KSM-66 Ashwagandha focuses on both 'beauty from within' and 'beauty from outside' blending into a wide range of products for both hair and skin, including creams, gels, oils, lotions, serums, shampoos, face masks and sprays.

KSM-66 AT A GLANCE



**Most certified
ingredient with 41
quality certifications**



**Most clinically studied
ashwagandha with 48
studies**



**Completely vertically
integrated from seed
to finish**



**Highest concentration,
full spectrum root only
extract**



**Entrusted by 1500+
marquee brands**



**Neutral in taste and
highly soluble**



Sustainable



**World's most trusted
brand with 1 Billion
doses sold worldwide
in 2021 alone**



Self-affirmed GRAS



WORLD'S BEST ASHWAGANDHA

FROM THE ASHWAGANDHA EXPERTS. THAT'S ALL WE DO.

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