



98% Calcium Alpha Ketoglutarate Supplement 71686-01-6 Ca AKG White Powder

Our Product Introduction

Basic Information



Product Specification

- Product Name: Calcium Alpha-Ketoglutarate
- CAS Number: 71686-01-6
- Synonyms: Calcium AKG, Ca-AKG, Calcium 2-oxoglutarate, calcium 2-oxopentanedioate, Alpha-Ketoglutaric Acid Calcium Salt, Calcium Ketoglutarate Monohydrate, CaAKG
- Molecular Formula: $C_5H_4O_5Ca$
- Molecular Weight: 184.16
- Purity: 98.00%
- Appearance: White Crystalline Powder
- Bulk Package: 1kg/bag; 25kg/drum
- Custom OEM Services: Available Upon Request
- Feature: Calcium AKG
- Chemical Composition: Combination Of Calcium And Alpha-ketoglutarate
- Absorption: Slower Absorption, Gradual Release Into Bloodstream

Product Description

Wholesale Calcium AKG Bulk Powder

What is Calcium AKG?

Calcium AKG, or Calcium Alpha-Ketoglutarate, identified by its CAS number 71686-01-6, is a calcium salt form of alpha-ketoglutaric acid, a key molecule in the Krebs cycle essential for energy production. This compound has been utilized by bodybuilders for decades as a performance enhancer. Regular use of Calcium AKG is reputed to not only prevent the loss of muscle mass but also to increase muscle size by optimizing the energy metabolism required for muscle growth and recovery. Over time, its benefits have extended beyond the bodybuilding community due to its emerging reputation as a potent anti-aging supplement. Its potential to promote cellular health and longevity has made Calcium AKG increasingly popular among those looking to mitigate the effects of aging.

Hygieia Biotech, a prominent wholesale manufacturer of Calcium AKG with a facility in China, caters to this growing demand by offering custom OEM services. This allows clients to purchase bulk quantities of Calcium AKG tailored to their specific branding and formulation needs. By offering such customization, Hygieia Biotech enables companies to meet the diverse needs of consumers seeking both fitness enhancement and anti-aging benefits from their supplements, ensuring high-quality and specifically formulated products reach the market.

Calcium AKG VS AKG

Calcium alpha-ketoglutarate combines calcium with alpha-ketoglutarate, a compound that plays a key role in energy production by helping to break down carbohydrates, amino acids, and lipids. Compared to alpha-ketoglutarate alone, calcium alpha-ketoglutarate offers extra benefits. It is absorbed more slowly in the gut and releases gradually into the bloodstream, allowing it to have a prolonged effect in the body. This extended action can enhance its overall effectiveness in supporting metabolic processes and bone health.

Feature	AKG (Alpha-Ketoglutarate)	Calcium AKG
Chemical Composition	Organic acid, key intermediate in the Krebs cycle	Combination of calcium and alpha-ketoglutarate
Absorption	Rapid absorption and metabolism	Slower absorption, gradual release into bloodstream
Bioavailability	High, but influenced by environmental factors	Extended duration in the body due to slower release
Primary Benefits	Enhances energy metabolism, supports liver health	Supports both energy metabolism and bone health
Additional Benefits	Aids in the breakdown of carbohydrates, amino acids, and lipids	Additional calcium supports bone density and function
Target Audience	Athletes, bodybuilders for performance enhancement	Older adults, those needing long-term health support
Supplement Forms	Powders, capsules, tablets	Powders, capsules, tablets
Usage Considerations	Preferred for immediate energy and performance boost	Suitable for prolonged effects and combined health benefits

Ca-AKG Manufacturing Process

The manufacturing process of Calcium AKG (Alpha-Ketoglutarate) powder at 98% purity begins with the synthesis of alpha-ketoglutarate, typically through the oxidative deamination of glutamate. This can be achieved using either enzymatic or chemical oxidation methods. Once AKG is produced, it is combined with a calcium source such as calcium carbonate or calcium hydroxide to form the calcium salt of alpha-ketoglutarate. The stoichiometry of this reaction is carefully controlled to ensure the correct ratio of calcium to AKG, which is crucial for achieving the desired purity.

Following synthesis, the compound undergoes a purification process which may involve techniques like crystallization, where the product is allowed to form crystals under specific conditions, followed by filtration and centrifugation to remove impurities. The purified product is then dried using methods such as spray drying, freeze drying, or vacuum drying to eliminate any residual moisture. Subsequently, the dry powder is milled to a specific particle size to ensure uniformity and improve solubility and handling characteristics. Rigorous quality control testing, including high-performance liquid chromatography (HPLC) and mass spectrometry, is conducted to confirm that the powder meets the 98% purity criterion. Finally, the powder is packaged under controlled conditions to maintain its purity and stability, ensuring that it remains free from contamination and moisture during storage and transport. This comprehensive process ensures the production of high-quality Calcium AKG suitable for various applications.

Calcium AKG Benefits

Calcium AKG offers a broad spectrum of health benefits that support vital functions associated with aging at a cellular level.

Cellular Repair and Detoxification: Calcium AKG enhances the body's natural ability to repair cells and detoxify harmful substances. This support extends to critical cellular pathways involved in maintaining cellular integrity and function.

Supports Cellular Energy Production: By playing a pivotal role in the Krebs cycle, Calcium AKG facilitates efficient production of energy within cells. This is essential for maintaining high energy levels and supporting overall cellular activities.

Boosts Metabolic Function: Calcium AKG aids in the metabolism of carbohydrates, fats, and proteins, which is fundamental for overall metabolic health. This action helps optimize body composition and supports various metabolic processes.

Promotes Healthy Aging: Calcium AKG contributes to longevity and the healthy aging of cells by supporting the biological mechanisms that diminish the effects of aging. This includes improving gene signaling pathways that help sustain life span and vitality.

Where to buy Calcium AKG bulk powder?

Hygieia Biotech, with its state-of-the-art facility in Shenzhen, China, sets the industry standard in the manufacturing of high-quality Calcium AKG powder. Our commitment to excellence is evident as each batch of our Calcium AKG undergoes rigorous testing for purity and quality. We collaborate with independent third-party laboratories to confirm that our products meet stringent standards.

We offer customized OEM services tailored to meet specific requirements, ensuring that our Calcium AKG aligns perfectly with

your product needs. Whether you're looking to develop a unique supplement formula or require specific packaging solutions, Hygieia Biotech is equipped to deliver premium-quality Calcium AKG that adheres to both GMP-certified and NSF-approved manufacturing practices.

Each batch is tested in-house and verified by an external laboratory to ensure it contains the exact level of purity and active ingredients without any additives or contaminants.

Elevate your product line with the purest form of Calcium AKG available on the market. Contact Hygieia Biotech today to receive a wholesale quotation and discover how our tailored solutions can enhance your offerings.



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