

Grains-of-Paradise/Aframomum melegueta Seed Extract

Material Standardization: NLT 2% 6-Paradol

Material Description: Yellowish to Brown Powder

Clinically Substantiated Dosage: 500 mg/Day

Label Claims: Plant-Based, Non-GMO, Allergen Free (Major 8)

Suggested Applications:

Capsules, Tablets, Softgels, Powder, Gummy, RTD, Functional Foods



Background information:

AfperFIT™ is an extract of *Aframomum melegueta* seed produced by Vidya Herbs, Inc. *Aframomum melegueta* is a spice also referred to as Grains-of-Paradise. Originating in Africa, the peppers were exported to Europe during the Middle Ages, along with other spices such as ginger, cinnamon and cloves. Its origins go back to the West African coast or Melegueta, the "pepper coast" as the region was once called. Historically, Grains-of-Paradise was used in a similar fashion to black pepper but it is less pungent in nature.

Dried Aframomum melegueta (Grains-of-Paradise) seeds imported directly from Africa undergo a process known as supercritical CO_2 extraction where high pressure is used to create an oleoresin that is then spray-dried with non-GMO maltodextrin to create the AfperFITTM powder. The extraction process occurs at Vidya's state-of-the-art manufacturing facilities in Bangalore, India.

Early research by Vidya Herbs examined the mechanisms by which AfperFIT $^{\text{TM}}$ works. Research revealed that AfperFIT $^{\text{TM}}$ enhances brown adipose tissue (BAT) activity as evidenced by upregulation of various fatty acid metabolism markers including UCP-1, PGC-1 α and PPAR γ in BAT. This type of adipose tissue is responsible for thermogenesis in mammals to produce heat in order to maintain body temperature. To achieve this, BAT has a high rate of energy expenditure. By increasing the thermogenic activity of this tissue, energy expenditure is enhanced.

In a double-blind, randomized, placebo-controlled clinical trial with a parallel design, 60 overweight (BMI \geq 25.0 to < 30.0 kg/m²) adults were administered 250 mg of AfperFITTM twice daily before meals or a placebo for 12 weeks.¹ Results indicated that there was a significant increase in energy expenditure (kcal/day) in the AfperFITTM group compared to the placebo group (p < 0.05). Administration of AfperFITTM was well tolerated and no adverse events (AE) were deemed to be related to use of the product by the trial investigator. There were no clinically significant

changes in the physical examination and vital signs noted.

¹Sudeep, H.V. et al. A Randomized, Double-Blind, Placebo-Controlled, Parallel-Group, Clinical Study to Evaluate the Thermogenic Effect of AfperFIT™ on Body Fat Loss in Overweight Subjects. *Unpublished*. 1-72 (2019).

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