



**THINOGEN<sup>®</sup> FUCOXANTHIN**  
YOUR CHOICE FOR WEIGHT MANAGEMENT

# THINOGEN® FOR WEIGHT MANAGEMENT

ThinOgen® Fucoxanthin is a natural carotenoid extracted from two different sea plants and produced using BGG's proprietary technology. Our primary source is an edible brown seaweed *Laminaria saccharina* (L.) LAMOUROUX (Alga Kombu)-Syn: *Laminaria japonica*. Upon request, we can also provide Fucoxanthin sourced from *Undaria pinnatifida* Harvey (Wakame Algae). The activity of ThinOgen® in supporting weight management has been clinically validated<sup>1</sup> and is further corroborated by pre-clinical research<sup>2</sup>. A randomized, double-blind study administered 4mg per day of ThinOgen® in hard gelatin capsules or placebo. Subjects in the treatment group lost on average 1 Kg in 30 days and 2 Kg over the 90-day study duration without dieting, additional exercise or other lifestyle changes. Of particular interest, a follow-up survey 30 days after the termination of the study found no weight gain in these subjects.

## PRODUCT RANGE AND SPECIFICATIONS

ThinOgen® is available as an oil (for softgel) and as a microencapsulated powder (for tablets and hard-shell capsules) sourced from both Algae Kombu and Wakame Algae.

	BRAND AND PRODUCT NAME	BOTANICAL ORIGIN	ASSAY
::	HKO ThinOgen®- Fucoxanthin Oil	<i>Laminaria japonica</i> (Algae Kombu)	1%, 5% of fucoxanthin by HPLC
::	HKO ThinOgen®- Fucoxanthin Oil	<i>Undaria pinnatifida</i> Harvey (Wakame Algae)	1%, 5% of fucoxanthin by HPLC
::	HKO ThinOgen®- Fucoxanthin Microencapsulated Powder	<i>Laminaria japonica</i> (Algae Kombu)	1% of fucoxanthin by HPLC
::	HKO ThinOgen®- Fucoxanthin Microencapsulated Powder	<i>Undaria pinnatifida</i> Harvey (Wakame Algae)	1% of fucoxanthin by HPLC

:: Dietary supplement  
H Halal certified  
K Kosher certified  
O Organic or made from organic raw material

## RECOMMENDED USE AND DOSE THINOGEN®

2mg – 4mg per day of Fucoxanthin taken as a dietary supplement

## MECHANISM OF ACTION

Fucoxanthin has many bioactive properties in promoting human health. In particular, its potential weight management effect has been linked to an induction of uncoupling protein-1 in abdominal white adipose tissue mitochondria, leading to the oxidation of fatty acids and heat production<sup>3</sup>.

1. Li Y., Iwata T., Sonoda K. *Fucoxanthin supplementation reduces body fat in over weight humans - A randomized, placebo controlled study.* Japanese Pharmacology & Therapeutics. 2015 Sep. 20:43: 1317-1322.
2. Hu X., Li Y., Li C., Fu C., Chen Q., Li D. *Combination of fucoxanthin and conjugated linoleic acid attenuates body weight gain and improves lipid metabolism in high-fat diet-induced obese rats.* Arch Biochem Biophys. 2012 Mar 1;519(1):59-65.
3. Gammone MA, D'Orazio N. *Anti-obesity activity of the marine carotenoid fucoxanthin.* Mar Drugs. 2015 Apr 13;13(4):2196-214.