

# IMC 510®



*Lactiplantibacillus plantarum* IMC 510®

## Your body weight ally

Worldwide obesity has more than doubled since 1980 and it is estimated that 39% of the world's adult population will become obese by 2035.

Obesity also contributes to other chronic conditions including type 2 diabetes, cardiovascular disease, some types of cancer, musculoskeletal disorders and infertility [1].

Consumers continue to look for answers. Their search is the reason why the global weight loss supplement market size was valued at USD 33.4 billion in 2020 and is projected to expand at a compound annual growth rate (CAGR) of 16.6% from 2021 to 2028 [2].

Many recent studies have indicated that the human gut microbiota (GM) plays a fundamental role in the rising of obesity affecting energy harvest and nutrient absorption.

Probiotic supplementation approach offers the possibility to shape the gut microbiota, enabling the development of innovative formulations able to support body weight modulation and energy metabolism.

**IMC 510® reduces body weight, BMI and waist circumference, positively modulating the gut microbiota to improve your quality of life.**

Hypoallergenic

Vegetarian

Gluten free

Kosher

Halal

GMO free

Genome Sequenced

Gastric resistant

CultureScience



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## How does IMC 510® support weight management

The mechanisms of action of IMC 510® have been established in a series of *in vivo* models that include normalizing appetite resulting in reduction of food intake and improved microbiota balance [3].

IMC 510® has been proven by serological, biochemical and histological analyses, to restore the brain-adipose crosstalk via modulation of leptin, an hormone that regulates the appetite [3]. The ability of IMC 510® in modulating the gut microbiota includes statistically increased concentration of *Lactobacillus* spp. and *Bifidobacterium* spp., the production of Short Chain Fatty Acids, the regulation of energy homeostasis and satiety, improved gut barrier function and the interruption of bile acid metabolism [4].

Firmicutes and Bacteroidetes, two key bacterial phyla of human gut microflora, have been linked to obesity.

In particular, the F/B ratio is higher in obese people, highlighting the impact of the microbiota in fat metabolism regulation. A clinical study using IMC 510® showed an increase in relative abundance of Firmicutes and higher F/B ratio in overweight and obese subjects in the placebo group, while in the probiotic group, notably, the IMC 510® consumption lowered the F/B ratio [3,4,5].

This highlights the promising potential of *L. plantarum* IMC 510® to be developed as a valuable supplement in decreasing specific obesity markers and aiding in weight management.

## IMC 510® clinical evidence

### Support Weight Loss

59  
overweight/  
obese individual

15 Bn  
CFU/day

Randomized, double blinded,  
placebo-controlled



**BODY WEIGHT**  
-1.8 Kg\*  
(placebo 0.0 kg)

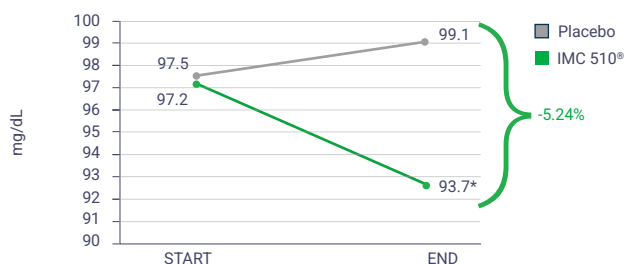


**WAIST CIRCUMFERENCE**  
-2.3 cm\*  
(placebo -0.7 cm)

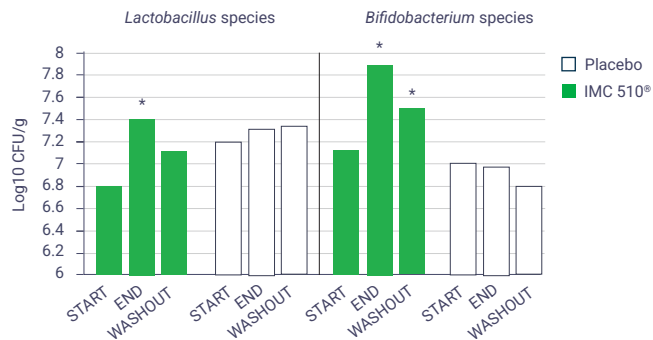


**BMI**  
-0.6 Kg/m<sup>2</sup>\*  
(placebo 0.0 kg/m<sup>2</sup>)

### Blood glucose reduction



### Intestinal microbiota modulation



### IMC 510® facts

- IMC 510® supplementation has been shown to promote reduction of body weight, waist circumference and BMI without requiring changes to diet or exercise
- IMC 510® supplementation improved intestinal and psychological wellbeing, increasing the quality of life
- IMC 510® is a natural ingredient to support weight management
- IMC 510®'s mechanisms of action are based on modulation of leptin (a satiety hormone) and lowering the Firmicutes/Bacteroidetes ratio
- IMC 510® supplementation support the lowering of blood glucose levels

[1] Schütz, F. et al., Porto Biomedical J, 6(1), p. e111 (2021). | [2] Grand View Research; Weight Loss Supplements Market Report, 2021-2028) | [3] Micioni Di Bonaventura et al., Int J Molec Sc, 22(20), p. 11171 (2021). | [4] Coman et al., J App Microbiol, submitted (2022). | [5] Pagliai et al., Front. Nutr. - Clinical Nutrition, (2023).



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