

# nu ProbioDefend

THE INNOVATIVE PROBIOTIC  
STRAIN FOR **IMMUNE SUPPORT**



## SCIENTIFIC EVIDENCE



**PROBIOTICS WITH  
SCIENTIFIC EVIDENCE FOR  
EFFECTIVE FORMULATIONS**



Clinically researched probiotic strain.



Immunomodulation activity.



Lactose, gluten and GMO free.



Vegan and Kosher certified.



Stable at room temperature.

*Bacillus coagulans* NU-10, the innovative probiotic strain for immune support with scientific evidence.

## WHAT IS ProbioDefend?

*Bacillus coagulans* NU-10, branded as ProbioDefend® is the first probiotic strain clinically tested and proven to promote immune response and immunomodulation activity.



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FOR EFFECTIVE FORMULATIONS

## CLINICAL STUDY

### STUDY FEATURES

- **Product:** *Bacillus coagulans* NU-10 (50mg/day for 90 days), branded as ProbioDefend®.
- **Description:** Single-center, double-blind, randomized, prospective pilot clinical study, compared to placebo.
- **Methods:** Blood test to assess levels of IgA, IgG, INF- $\gamma$  and leukocytes. Quality of life test (SF36) to assess general well-being.
- **Primary objective:** Evaluate the efficacy of a probiotic product based on *Bacillus coagulans* NU-10 on immunomodulation in healthy volunteers.
- **Secondary objective:** Evaluate the improvement of quality of life and the non-occurrence of adverse events.
- **Subjects:** 55 healthy people (49% experimental group – 51% placebo group).
- **Duration:** 90 days, 2 visits during the experimental phase.
- **Current status:** Completed.

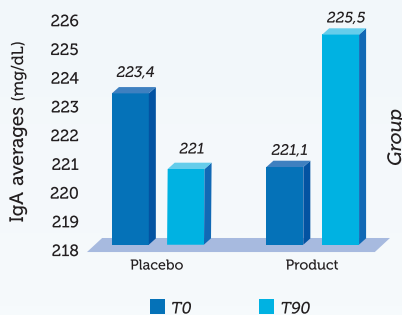
## PHYSIOLOGICAL MARKERS CHANGES BY TREATMENT GROUP

	Placebo	p-value	Product	p-value	p-value interaction
IgA	-1.07% ↓	0.2547	1.99% ↑	0.1992	0.1412
IgG	2.89% ↑	0.0526	2.63% ↑	0.0230*	0.4817
Interferon- $\gamma$	-41.79% ↓	0.1500	24.44 ↑	0.1965	0.4894

A summary of changes for each physiological marker is presented in the following table. **Product improves its average in all cases.**

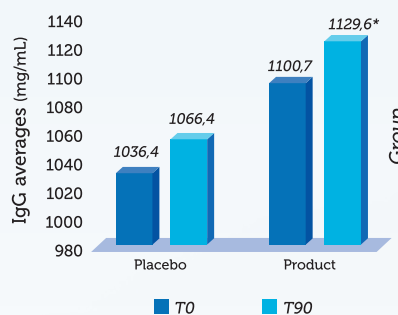
**There are significant changes in the case of IgG.** In placebo group is not significant but in product group is statistically significant (**p-value=0.0230\***).

IgA evolution by group



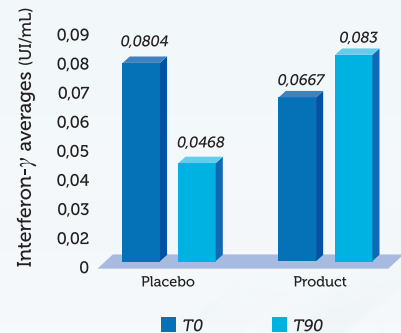
**ProbioDefend®** increases IgA levels while placebo group levels decrease.

IgG evolution by group



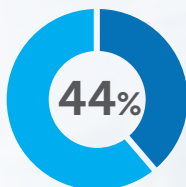
**ProbioDefend®** increases significantly IgG levels (p=0.0230\*).

Interferon- $\gamma$  evolution by group



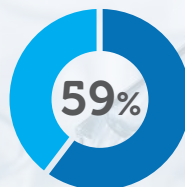
**ProbioDefend®** increases INF- $\gamma$  levels while placebo group levels decrease.

IgA



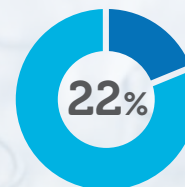
**44%** of product group participants increased their IgA levels.

IgG



**59%** of product group participants increased their IgG levels.

INF- $\gamma$



**22%** of product group participants increased their INF- $\gamma$  levels.

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## EFFICACY CONCLUSIONS

- ***Bacillus coagulans* NU-10**, branded as **ProbioDefend®** has been **clinically demonstrated** through a randomized, double-blind study and compared with placebo **its modulation activity on the immune system**, when dosed at 50mg/serving.
- **Participants in probiotic group showed better results** in tendency information for physiological markers considered (IgA, IgG and IFN- $\gamma$ ).
- **IgA: Increment in product** and decrease in placebo.
- **IgG: Statistical significance** improvement in product group.
- **IFN- $\gamma$ : Increment in product** and decrease in placebo.
- These immunoglobulins and cytokines are **essential in protecting against bacteria, viruses, and fungi**.

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