

## Food Safety



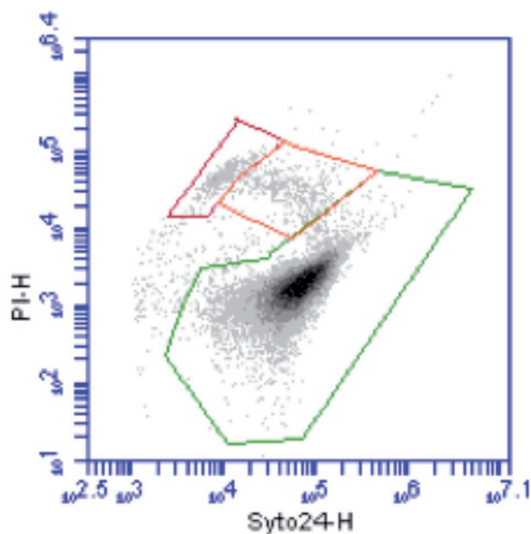
Live lactic probiotic bacteria in a powder form, commonly used by the food industry and perfectly safe for human consumption in food supplements. This species figures on the EFSA's list of micro-organisms used in food (QPS "Qualified Presumption of Safety list" 2013).

Do not contain allergens according to European Regulation 1169/2011.

## Viability



Flow cytometry is used to analyse cell viability, one by one, with the help of a fluorescent compound, tracer of **Lbpl1** membrane's integrity.



2 % of dead cells  
2 % of damaged cells  
96 % of live cells

## Stability in powder



Correctly formulated in a sachet or capsule, **Lbpl1** is a **stable** strain at 4 °C and 20 °C.

Duration (months)	4°C		20°C	
	Viability (CFU/g)	Billion(s) per unit	Viability (CFU/g)	Billion(s) per unit
0	1.3E+10	91	1.3E+10	91
3	1.1E+10	77	1.1E+10	77
6	1.1E+10	77	1.1E+10	77
12	1.3E+10	91	7.7E+09	54
18	1.2E+10	84	1.0E+10	70
27	1.0E+10	70	5.3E+09	44

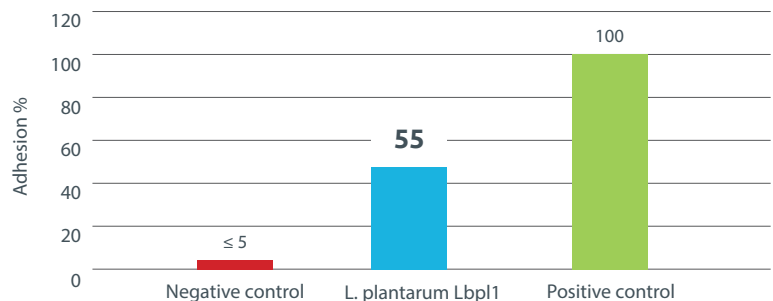
CFU: Colony Forming Unit

Around 50% of the initial viability is still maintained after 2 years of storage at 20 °C

## Intestinal mucosa adhesion



**Lbpl1** adheres **correctly** to the surface of Caco-2 cells (human intestinal cells):



## Production of antimicrobial substances



The growth of pathogen micro-organisms is **strongly** inhibited by **Lbpl1** in agar medium:

Pathogen	Result
<i>Clostridium difficile</i>	S
<i>Clostridium perfringens</i>	S
<i>Escherichia coli</i> O157:H7	S
<i>Listeria monocytogenes</i>	S
<i>Salmonella typhimurium</i>	S

R = Resistant; S = Susceptible; I = Intermediate

This technical information is supplied to inform our clients and may be modified at a later date. Additional information and the experimental protocols of the in vitro evaluation of probiotic properties used are available upon simple request.