

Food Safety



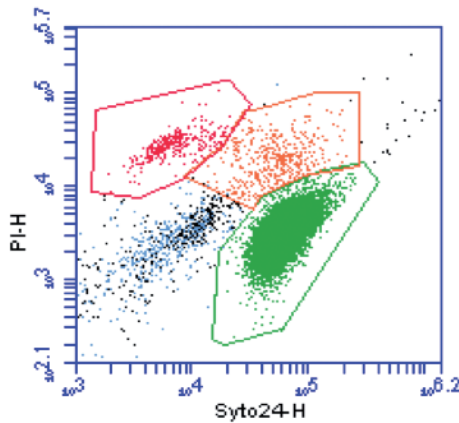
Live lactic probiotic bacteria in powder form, commonly used by the food industry and perfectly safe for human consumption in food supplements. This species figures on the EFSA's list of micro-organisms used in food (QPS "Qualified Presumption of Safety list" 2013).

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 the integrity of Bifidobacterium breve **Bfbr1**'s membrane.



- 2% of dead cells
- 4% of damaged cells
- 94% of live cells

Stability in powder



Bfbr1 is a perfectly stable strain at 20°C and 25°C when correctly formulated in a sachet or capsule.

Test	20°C		25°C / 60% RH	
	Viability (CFU/g)	Billion(s) per unit	Viability (CFU/g)	Billion(s) per unit
0	1.2E+10	84	1.2E+10	84
3	1.0E+10	70	1.1E+10	77
6	1.1E+10	77	1.1E+10	77
9	8.8E+09	62	8.7E+09	61
12	1.2E+10	84	1.3E+10	91
18	1.1E+10	77	1.0E+10	70
24	1.1E+10	78	9.6E+09	67

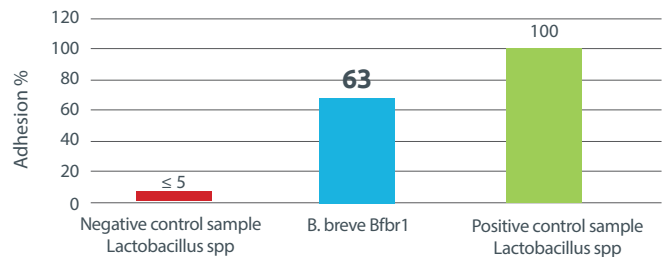
CFU: Colony Forming Unit ; RH: Relative Humidity

After 2 years of storage at 20°C, no viability is lost.

Intestinal mucosa adhesion



Bfbr1 adheres well to human intestinal cells (caco-2-model).



Production of antimicrobial substances



Bfbr1 strongly inhibits the growth of pathogenic micro-organisms in agar medium.

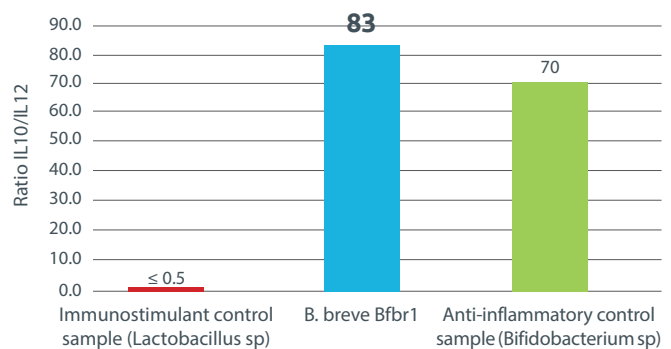
Pathogen	Result
<i>Escherichia Coli</i>	S
<i>Salmonella typhimurium</i>	S
<i>Listeria monocytogenes</i>	S
<i>Clostridium perfringens</i>	I

R = Resistant; S = Susceptible; I = Intermediate

Immunomodulatory properties



Bfbr1 has an *in vitro* anti-inflammatory immune profile (PBMC model, peripheral blood mono nuclear cells).



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