

# Lyofast LPR A

## Description

**Lyofast LPR A** consists of *Lactobacillus rhamnosus* and *Lactobacillus plantarum* both strains producing bacteriocins. Lyofast LPR A is a protective culture inhibiting unwanted bacteria, yeasts and moulds. Lyofast LPR A may be applied in generic probiotic products such as e.g. fermented milk products and in feed. Furthermore, Lyofast LPR A might also be used for pharmaceutical purpose. The culture develops a weak acidity and aroma from slow citrate fermentation.

## Application

Sprinkle the culture powder directly into process milk under aseptic conditions ensuring that the culture is well dispersed by gentle stirring. The culture is applied as a protective culture as follows:

Product	Dose/100 l	Product	Dose/100 l
Semi-hard cheese	0.5-2.0	Hard cheese	0.5-2.0

## Culture information

Inoculation guideline for probiotic application: 1 dose is 10<sup>11</sup> CFU and inoculated in 100 l milk 1 dose gives approx. 10<sup>6</sup> CFU/ml milk.

Optimal temperature for growth	25-45 °C	Acid tolerance	+++
Bile tolerance	+++	Adherence test	++

## Storage

Unopened pouches should be kept at or below -18°C.

## Package data

The freeze-dried culture is packed in waterproof and airproof aluminium pouches. Lyofast LPR A is available in 10 and 50 UC.

## Shelf life

18 months when stored at or below -18°C. The shelf life includes up to 14 days of shipment at temperatures below 30°C.

## Heavy metal specification

Pb (lead)	< 1 ppm
Hg (mercury)	< 0.03 ppm
Cd (cadmium)	< 0.1 ppm

## Microbiological specification

<i>Bacillus cereus</i>	<100 CFU/g	Method: Sacco M10 (1)
Coagulase positive staphylococci*	<10 CFU/g	Method: Sacco M11(2)
Enterobacteriaceae	<10 CFU/g	Method: Sacco M2 (3)
<i>Escherichia coli</i>	<1 CFU/g	Method: Sacco M27 (4)
<i>Listeria monocytogenes</i> *	Not detected in 25 g	Method: Sacco M13 (5)
Moulds & yeasts	<10 CFU/g	Method: Sacco M3 (6)
<i>Salmonella spp</i> *	Not detected in 25 g	Method: Sacco M12 (7)

\* Analysed on regular basis. All analytical methods are available upon request.

(1)ISO 7932; (2)ISO 6888-1-2; (3)ISO 215281-2; (4)ISO11866-1-2/IDF 170-1-2; (5)ISO 11290-1-2; (6)ISO 6611/IDF 94; (7)ISO 6785/IDF 93;

## GMO

The microbial strains are not genetically modified (GMO) in accordance with the European Directive 90/220/EEC. The strains are isolated from natural sources. The raw materials used are also GMO free in accordance with Regulation (EC) No. 1829/2003 and Regulation (EC) 1830/2003. Statement available upon request.

## Allergens

The raw materials used are generally based on dairy ingredients. All materials are free of the following components and their derivatives: peanut, tree nut, sesame, egg, fish, shellfish, mollusc, crustacean, sulphite, wheat, celery, mustard, soy and lupine. Statement available upon request.

# Lyofast LPR A

**Safety information** Material Safety Data Sheet available on [www.saccosrl.it](http://www.saccosrl.it)

**Certificate** Lot certificate available upon request.

**ISO** Sacco S.r.l. is UNI EN ISO 9001:2000 certified since 1998. Sacco cultures are generally Kosher approved except for surface ripening cultures.

**Kosher approval**

**Service** Please contact your distributor for guidance and instructions for your choice of culture and processing. Information about additional package sizes and sales units is also available upon request.

**Liability** This information is based on our knowledge trustworthy and presented in good faith. No guarantee against patent infringement is implied or inferred.