SACCO
system
microbiome

Active Ingredients and Services

OUR NUMBERS

6,500+

Cell bank proprietary strains

50+

University partnerships

45+

Probiotic species manufactured

150+

Years of experience

110+

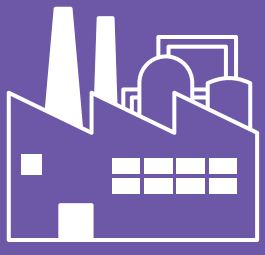
Export countries

90+

Years of probiotic manufacturing

150+

Scientific publications



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Production plants

CultureScience

Gastrointestinal (GI) Health

Irritable Bowel Syndrome (IBS)	*B. coagulans* SNZ 1969™	Reduces the severity of IBS symptoms in over 90% of IBS-C and IBS-D patients after treatment of a minimum 30 days as well as improving their quality of life.	1 Bn CFU/day
Microbiota Balance	*L. rhamnosus* IMC 501® *L. paracasei* IMC 502® SYNBIO	Successfully colonizes the gut, competing with and reducing harmful bacteria as well as enhancing bowel habits and well-being.	1 Bn CFU/day
Bloating, Gas, Heartburn	*B. coagulans* SNZ 1969™	Improves gut motility and constipation in healthy adults with abitual low intake of fruit and vegetables as well as relief from gas, heartburn and bloating.	0.15 Bn to 2 Bn CFU/day
Diarrhoea	*L. rhamnosus* CRL 1505®	Significantly decreases the impact of intestinal infections by reducing acute diarrhoea and the use of antibiotics in children.	0.1 Bn CFU/day
	B. coagulans SNZ 1969™	Improved watery stools in neonatal infants within 1 to 2 days and improved gastroenteritis in children up to 3 years of age within 3 days.	0.15 Bn to 2 Bn CFU/day
Infection	*L. fermentum* UCO-979C	Reduces pathogenic colonization in the gut, preventing infection and stimulating the immune system.	0.3 Bn CFU/day

Children and Infant Health

Respiratory and Diarrhoea	*L. rhamnosus* CRL 1505®	Significantly reduces upper respiratory tract infections, pharyngitis, tonsillitis, acute diarrohea and the use of antibiotics.	0.1 Bn CFU/day
Infant Colic	*L. reuteri* LR 92	Maternal prenatal supplementation during the last 4 weeks of pregnancy reduces the incidence and severity of infantile colic in newborn babies.	0.1 Bn CFU/day
Otitis Media	*L. rhamnosus* LB21	Otitis media is the most common childhood infection. LB21 reduce incidence of this ear infection in children	1.5 Bn CFU/day

Women's Intimate Health

Vaginal Health	*L. rhamnosus* ProBioEtna CA15®	Restores a healthy vaginal microbiota after 10 days of treatment, reducing Vulvovaginal Candidiasis (VVC) and Bacterial Vaginosis (BV). Also helps to balance the vaginal microbiota.	10 Bn CFU/day
	L. rhamnosus IMC 501® *L. paracasei* IMC 502® SYNBIO	Improves symptoms associated with bacterial vaginosis (BV) while decreasing the chances of recurrence by restoring vaginal microbiota balance. Also supports the gut microbiome and improves constipation, bloating and abdominal pain.	5 Bn CFU/day
	L. plantarum LB931™	A vaginally isolated *L. plantarum* with a human clinical study in vaginal health via topical application. This strain lowered mean vaginal pH, and inhibited group B streptococci. Also shows in-vitro reduction of Candida Albicans and inhibition of E. coli.	0.5 Bn CFU/day
	B. coagulans SNZ 1969™	Treatment in both oral and topical dose forms, this strain can reduce recurrent Bacterial Vaginosis (BV) and is effective against non-specific vaginitis.	0.15 Bn CFU/day

Immune Health

Upper Respiratory Tract	*L. rhamnosus* CRL 1505®	Decreases the severity of upper respiratory tract infection symptoms as well as decreasing the overall duration of the infection in children.	0.1 Bn CFU/day
	L. rhamnosus IMC 501® *L. paracasei* IMC 502® SYNBIO	Decreases severity of symptoms of Upper Respiratory Tract infections.	1 Bn CFU/day

Allergy

Dust-Mites	*L. rhamnosus* IMC 501® *L. paracasei* IMC 502® SYNBIO	Significantly reduces allergy sensitization to house dust mites.	15 Bn CFU/day

Metabolic Health

Weight Management	*L. plantarum* IMC 510®	Supplementation for 12 weeks results in decreased body weight, waist circumference and BMI, which is maintained for 30 days after supplementation ceases .	15 Bn CFU/day

Gut Brain Axis

Stress/Anxiety	*L. plantarum* P8	Supports a reduction in stress and anxiety, and improvements in memory and cognitive functions.	20 Bn CFU/day

SACCO system microbiome

Oral Health

Dental Caries (Tooth Cavities)	*L. rhamnosus* SP 1	Regular intake reduces the occurrence of dental caries.	1.5 Bn CFU/day
	L. rhamnosus LB21	Reduces caries development and the number of days with antibiotic treatment by 60% in preschool children.	2 Bn CFU/day
	B. coagulans SNZ 1969™	Significant reduction of the cariogenic microorganism Streptococcus mutans in children.	0.15 Bn CFU/day
Aphthous Ulceration	*B. coagulans* SNZ 1969™	Significantly reduces the incidence of recurrent aphthous (mouth) ulcers.	0.15 Bn CFU/day

Skin Health

Acne	*L. rhamnosus* SP 1	Improves the appearance of acne and lessens the inflammatory processes related to acne formation by modulating genes involved in insulin signaling.	3 Bn CFU/day
Atopic Dermatitis	*L. rhamnosus* LB21	Significantly reduces the need to use corticosteroids in children.	100 Bn CFU/day
	L. rhamnosus LB21 + SP 1	Topical application decreases severity of visual signs and decreases intensity of itching on people with atopic dermatitis.	1 Bn CFU/day

Healthy Aging

Longevity and cell aging	*L. rhamnosus* IMC 501® *L. paracasei* IMC 502® SYNBIO	Supports healthy aging by targeting multiple interconnected pathways involved in age-related decline. It helps modulate systemic inflammation associated with chronic age-related conditions, mitigates cellular senescence reducing telomeres shortening, and may reduce the risk of sarcopenia.	5 Bn CFU/day

Sport

Performance Improvement	*L. rhamnosus* IMC 501® *L. paracasei* IMC 502® SYNBIO	Improves the body's recovery processes and fatigue after training by lowering exercise-induced oxidative stress. In addition, SYNBIO improves gastrointestinal functions and reduces susceptibility to illness.	1 Bn CFU/day

Postbiotics

Respiratory health	*L. rhamnosus* CRL 1505® HI	Thanks to the maintenance of higher levels of circulating dendritic cells involved in the anti-viral responses, it shows a beneficial role in promoting immune defense, with a reduction of symptomatic day of physical conditions.	1 Bn Cells/day

CultureSelect

Probiotics

Species	Strain name	Minimum concentration (Billion CFU/g)*
Bifidobacterium adolescentis	SP 77	50
Bifidobacterium animalis subsp. lactis	Bi1	300
Bifidobacterium animalis subsp. lactis	BLC1	500
Bifidobacterium bifidum	SP 9	200
Bifidobacterium breve	Bbr8	300
Bifidobacterium breve	BL10	200
Bifidobacterium infantis	SP 37	300
Bifidobacterium longum	SP 54	100
Lactobacillus acidophilus	LA3	200
Lactobacillus acidophilus	LA1	200
Lactobacillus brevis	SP 48	200
Lactobacillus bulgaricus	LB2	50
Lactobacillus casei	BGP93	300
Lactobacillus crispatus	SP 28	50
Lactobacillus crispatus	SP 60	50
Lactobacillus fermentum	CS57	100
Lactobacillus fermentum	LF2	100
Lactobacillus gasseri	SP 33	200
Lactobacillus gasseri	SP 56	50
Lactobacillus helveticus	SP 27	100
Lactobacillus lactis	LL 82	100
Lactobacillus paracasei	101/37	200
Lactobacillus paracasei	BGP 2	400
Lactobacillus plantarum	14D	500
Lactobacillus plantarum	LB931	200
Lactobacillus plantarum	BG 112	400
Lactobacillus rhamnous	GG	350
Lactobacillus salivarius	SP 2	100
Lactococcus lactis	SP 38	300
Streptococcus thermophilus	Z57	200
Streptococcus thermophilus	SP 4	400
		*1 Billion = 10^9 CFU

SACCO system microbiome

Postbiotics

Species	Strain name	Minimum concentration (Billion cells/g)*
Bifidobacterium animalis subs. *lactis*	BLC1 HI	100
Bifidobacterium longum subs. *infantis*	SP 37 HI	100
Lactobacillus acidophilus	LA1 HI	100
Lactobacillus acidophilus	LA 3 HI	150
Lactobacillus casei	BGP93 HI	150
Lactobacillus paracasei	101/37 HI	150
Lactobacillus plantarum	14D HI	150
Lactobacillus reuteri	LR 92 HI	130
Lactobacillus rhamnosus	SP 1 HI	100
		*1 Billion = 10^9 Cells

ActiveServices

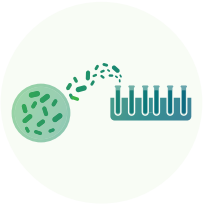
MadeForYou

Within the microbiome innovation space, Sacco System emerges as a reliable all-in-one partner. We specialize in handling the intricacies of manufacturing and science, freeing you to concentrate on your core business. Our range of services covers expertise in aerobic and anaerobic strains, Probiotics, Postbiotics, and Microbial Therapeutics, providing versatile solutions tailored to your unique requirements.

Process development & fermentation: from initial development to scale up.

Product formulation: Our business development team can support the design of the final concept, from the definition of the scientific rationale to the selection of the most appropriate pharmaceutical form, to shortcut your entry into the market.

Media screening and optimization



Analytical method development, qualification and validation

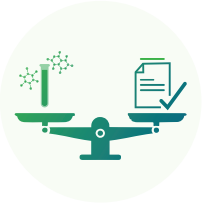
Molecular biology & genetic analysis

Cell bank preparation and validation (RCB, MCB and WCB)

Process development and scale up

Lyophilization

Possible production in GMP from clinical to industrial scale (200L to 20,000L)



Stability studies

In vitro and in vivo trials: Defining the experimental design and characterizing your product in vitro or through clinical trials.

Market Expansion: Market analysis, distributor scouting and management, connection to third-party service providers as laboratories, contract manufacturing organizations and authorities.

Regulatory Support: Registration support, new biotherapeutic dossiers.

Molecular biology & laboratory analysis: Several wet labs and in silico assays to better characterize your products.

SACCO system microbiome

Yogurt

Yogurt is a fermented product made from milk. It is prepared by adding live bacteria cultures, specifically *Lacticaseibacillus delbrueckii* subsp. *bulgaricus* and *Streptococcus thermophilus* to milk.

This fermentation process converts lactose, the natural sugar in milk, into lactic acid, giving yogurt its tangy flavor and thick texture.

The great majority of the flavor compounds found in yogurt derive from the activity of microorganisms in starter cultures.

Yogurt Application	Product characteristics	Cultures series	Fermentation Speed	Texture	Flavor	Strains
Set mild	Controlled post-acidification Balanced aroma Naturally smooth	**Y 256 A PLUS** **Y 258 A PLUS**	Medium	Medium/High	Mild and Aromatic flavor	*Streptococcus thermophilus* *Lactobacillus delbrueckii* subsp. *bulgaricus*
Stirred and aromatic	Controlled post-acidification Balanced aroma Extra mouthfeel	**Y 350 A** **Y 359 C** **Y 380 F** **Y 450 B**	Medium	Medium/High	Mild and Aromatic flavor	*Streptococcus thermophilus* *Lactobacillus delbrueckii* subsp. *bulgaricus*
Stirred mild	Extremely low post-acidification Very high texture Extra mouthfeel	**Yo-mild** **Yo-mild 1.1** **Y 428 A** **Y 429 A**	Medium/High	High	Extra-Mild	*Streptococcus thermophilus* *Lactobacillus delbrueckii* subsp. *bulgaricus*
Stirred premium, Greek yogurt	Low post-acidification maintaining Balanced aroma High texture Extra mouthfeel	**Yo-Athena (range)**	Medium	Medium/High	Mild and Aromatic flavor	*Streptococcus thermophilus* *Lactobacillus delbrueckii* subsp. *bulgaricus*

Freeze-dried direct inoculation STARTER CULTURES

Fermented Milk

Fermented milk is a dairy product obtained by fermenting milk with specific microorganisms that convert lactose into lactic acid. Dahi (Indian curd) is a traditional fermented milk from the Indian subcontinent, produced by inoculating heat treated milk with bacterial cultures until it becomes thick, creamy, and mildly tangy. Lassi is a yogurt-based drink originating from the Punjab region, made by blending dahi with water or milk, spices, and sometimes fruit, resulting in a smooth, frothy beverage typically served chilled in sweet or savory varieties.

Product Application	Product characteristics	Cultures series	Fermentation Speed	Texture	Flavor	Strains
Dahi Curd	High speed acidification, more grain, firm, mild flavor, low post acidification	**ST 081** **ST 083** **ST 085** **ST 087**	High	-	Mild	*Streptococcus thermophilus*
	Good acidification speed, more flavor, more compact, no viscosity	**MS 058 ET** **MS 059 ET**	Medium	-	Mild	*Streptococcus thermophilus; Lactococcus lactis* ssp. *lactis; Lactococcus lactis* ssp. *lactis* biovar *diacetylactis; Leuconostoc mesenteroides* ssp.
Lassi Buttermilk	High speed of acidification, more flavor, moderate viscosity	**UBM 11.0** **UBM 12.0** **UBM 13.0**	High	Low	Medium/High	*Streptococcus thermophilus; Lactobacillus delbrueckii* ssp. *bulgaricus; Lactococcus lactis* ssp. *lactis; Lactococcus lactis* ssp. *lactis* biovar *diacetylactis; Leuconostoc mesenteroides*

Freeze-dried direct inoculation STARTER CULTURES

FM-Delice

FM-Delice is the product line inspired by traditional Kefir, designed for modern taste. The original kefir is a nutrient-rich fermented milk originating from the Caucasus region. Designed to meet diverse consumer expectations, these solutions support a wide range of texture and aroma profiles—from traditional and authentic to creamy and milky

Culture	Optimal T°C Range	Fermentation Time	Texture	Aroma	Yest Profile
MT 036 LV	32°C	pH 4,5 in 15h30	0	Mild Traditional	NLFY
MT 036 LX	32°C	pH 4,5 in 10h	0	Traditional	LFY
MS 332 EN	32°C	pH 4,55 in 8h15	3	Creamy, Milky	Yeast free
MT 430 ANV	34°C	pH 4,5 in 8h	4	Creamy, Milky	NLFY
MT 430 AN	34°C	pH 4,5 in 9h30	4	Creamy, Milky	Yeast free
MTX 432 EN	34°C	pH 4,55 in 8h30	4	Creamy, Milky	Yeast free with probiotics

NLFY: Non-Lactose Fermenting Yeast

LFY: Lactose Fermenting Yeast

All cultures are freeze-dried. Phage alternatives are available upon request

Pasta Filata Cheese

Pizza cheese typically refers to a blend of cheeses, commonly mozzarella, known for its meltability and elastic texture. The choice of cheese contributes significantly to the taste of the final pizza.

Fresh mozzarella is a soft, mild cheese made from cow's or buffalo's milk. It has a high moisture content, a smooth surface, and a delicate, creamy flavor. The cheese is typically formed into small, round shapes and is best enjoyed shortly after production for its optimal freshness and texture. It's a popular choice for salads, caprese dishes, and as a topping for pizza.

Application	Product characteristics	Cultures series	Fermentation Speed	Flavor	Strains
Pizza cheese	High performing cultures to improved stretchability and meltability	**ST REGINA S**	Very High	Medium	*Streptococcus thermophilus*
	Improving cheese yield Suitable for low fat mozzarella	**ST Optima 1.0** **ST Optima 1.1**	Very High	Medium	*Streptococcus thermophilus*
	High performing cultures to better control browning and blistering issues related. Improved stretchability and meltability	**SH 090 E** **SH 094 E** **SH 092 F** **SH 096 F**	Very High	Medium	*Streptococcus thermophilus* *Lactobacillus helveticus*
Fresh mozzarella	A series designed to provide the typical "fior di latte" characteristics to the product	**ST 05X**	Medium	High	*Streptococcus thermophilus*

Cheddar

Cheddar is a relatively hard cheese, off-white or orange. It originates from the English village of Cheddar in Somerset, South West England.

Cheddar made in the classical way tends to have a sharp, pungent flavour, often slightly earthy.

The “sharpness” of cheddar is associated with the levels of bitter peptides in the cheese. This bitterness has been found to be significant in shaping the overall perception of aged cheddar flavour. It tends to melt in the mouth.

Product characteristics	Cultures series	Fermentation Speed	Texture	Flavor	Strains
Specifically designed for Cheddar type cheese. Creamy notes	**MOS 052 A** **MOS 054 A** **MOS 056 A**	Medium/Fast	Medium Low	Medium High	*Streptococcus thermophilus* *Lactococcus lactis* ssp. *lactis* *Lactococcus lactis* ssp. *cremoris*
Specifically designed for semi hard cheeses. Also suitable for long ripening.	**MOS 062 B** **MOS 064 B** **MOS 066 B**	Medium	Medium Low	Medium	*Streptococcus thermophilus* *Lactococcus lactis* ssp. *lactis* *Lactococcus lactis* ssp. *cremoris*
Complex set of cultures for the production of semi hard cheeses.	**MOS 060 G** **MOS 066 G**	Fast	Medium Low	Medium	*Streptococcus thermophilus* *Lactococcus lactis* ssp. *lactis* *Lactococcus lactis* ssp. *cremoris*
Specifically designed for semi hard cheeses.	**MOT 097 EF** **MOT 098 EF**	Medium	Medium Low	Medium High	*Streptococcus thermophilus* *Lactococcus lactis* ssp. *lactis* *Lactococcus lactis* ssp. *cremoris* *Lactobacillus delbrueckii* ssp. *bulgaricus* *Lactobacillus helveticus*

Freeze-dried direct inoculation STARTER CULTURES

American Cottage Cheese

Cottage cheese is a curdled milk product with a mild flavor and a creamy dressing, heterogeneous, soupy texture, made from skimmed milk. Cottage cheese is loved also for its versatility, and convenience.

It’s a ready-to-eat, nutritious snack enjoyed on its own, in smoothies, or in both sweet and savory dishes, making it perfect for any meal occasion.

Product characteristics	Cultures series	Fermentation Speed	Texture	Flavor	Strains
Finely working at 28-38°C	**MOS 071 D** **MOS 070 F** **MOS 072 F**	Regular	Regular elastic	Medium/High	*Streptococcus thermophilus* *Lactococcus lactis* ssp. *lactis*
Finely working at 28-38°C	**MOS 080 F** **MOS 082 F**	Faster	Regular elastic	Medium/High	*Streptococcus thermophilus* *Lactococcus lactis* ssp. *lactis*
Finely working at 28-38°C	**MOS 090 F** **MOS 092 F**	Very high	Regular elastic	Medium/High	*Streptococcus thermophilus* *Lactococcus lactis* ssp. *lactis*

Food Cultures with Protective Effect – Complete Range

Clean Label Solutions for shelf life without compromise.

Multiple mechanisms – tailored to product and matrix

AYM

Anti Yeasts & Molds

AP

Anti *Pseudomonas* &
Anti *Psychrotrophic*

AL

Anti *Listeria*
monocytogenes

AG

Anti Gram Negative

PS

Protein Stability NEW

AC

Anti Clostridia

AOM

Anti Others Microorganisms
(e.g. Heterofermentative Microorganisms)

Probiotics Product Line

Fermented dairy has long been considered the ideal vehicle for delivering probiotics. However, technological challenges remain, as processing conditions can compromise the viability and efficacy of probiotic strains. Sacco System addresses these hurdles with a portfolio of probiotic strains, backed by scientific evidence. Engineered for versatility, our cultures maintain stability across diverse fermented matrices— from traditional dairy to innovative applications in plant-based products, dark chocolate and beverages.

Product Name	Blend Composition	Characteristics
Synbio 100	*Lacticaseibacillus rhamnosus* **IMC 501®** + *Lacticaseibacillus paracasei* **IMC 502®**	A scientifically documented blend supporting intestinal balance, antioxidant and anti-inflammatory activity, also for healthy aging. Versatile formulation for functional foods, supporting athletic performance, digestive wellness, and products targeting dust mite allergies.
CRL 1505 ®	*Lacticaseibacillus rhamnosus*	Isolated from goat's milk, ideal for use in the production of fermented milk, yogurt, and probiotic cheese. CRL1505 stimulates the immune response, promoting a protective effect and naturally improving the immune, digestive, and respiratory systems in children and adults.
BLC 1	*Bifidobacterium animalis* ssp. *lactis*	It promotes the strengthening of the intestinal barrier and the metabolism of oxalates and lactose. Suitable for synergistic formulations.
AB 1	*Lactobacillus acidophilus, Bifidobacterium animalis* ssp. *lactis*	Multistrain Formulations that maintain the balance of the intestinal flora for digestive system
ABC 1	*Lactobacillus acidophilus, Bifidobacterium animalis* ssp. *lactis, Lacticaseibacillus casei*	

Add Value With Postbiotics

Thanks to the maintenance of higher levels of circulating dendritic cells involved in the anti-viral responses, CRL 1505® HI shows a beneficial role in promoting immune defense, with a reduction of symptomatic day of physical conditions.

CRL 1505® HI is:

Versatile

Stable

Safe

Immune system modulation:

better maintenance of receptor HLA-DR (Human Leukocyte Antigen) expression during the treatment period. HLA-DR is a marker of pDC (plasmacytoid dendritic cells) activation, whose production is associated with immune activation, showing a beneficial role in modulating the immune response.

Physical condition improvement:

reduction of symptomatic day of physical conditions during 8 weeks of intake, with a global improvement of bowel symptoms and social conditions.