

Dairy cultures

Dairy cultures are microorganisms especially selected and developed for their functionalities in the dairy industry.

These microorganisms belong to different species: lactic acid bacteria are commonly referred to because of their use in most of the dairy applications, but other types of bacteria, such as yeasts and moulds, are also commonly used.

Supported by one of the world's most extensive collections, Danisco's strain and microorganism selection is achieved through the identification of each specific milk component metabolism (sugar, fat and proteins) and the characterisation of their functional properties (phage alternative, polysaccharide production, flavouring etc.).

Microorganisms	Functionalities used in the dairy industry
Lactic Acid Bacteria (LAB) (main genera: <i>Streptococcus</i> , <i>Lactobacillus</i> , <i>Lactococcus</i> , <i>Leuconostoc</i> , <i>Enterococcus</i> , <i>Pediococcus</i> , <i>Bifidobacterium</i>)	Acidification: lactic acid production from sugar (lactose) metabolism Texturising: polysaccharide-forming strains Flavouring: flavour compounds production (acetaldehyde, ethanol, diacetyl) and proteolytic enzymes releasing (important in flavour development) Probiotics health benefits
Moulds (main genera: <i>Penicillium</i> , mould form of <i>Geotrichum</i>)	Surface or internal growth Colouring Flavouring: enzymatic activities and flavour compounds production (methyl ketone)
Yeasts (main genera: <i>Geotrichum</i> , <i>Candida</i> , <i>Kluyveromyces</i> , <i>Debaryomyces</i> , <i>Rhodospirium</i>)	Surface and internal growth Surface colouring Flavouring: enzymatic activities (proteolytic, lipolytic)
Other bacteria: Propionibacteria & surface bacteria (Corynebacteria, Micrococacceae)	Surface or internal growth Gas production Colouring Flavouring

Depending on the final application, Danisco markets dairy cultures under two specific trademarks:

- CHOOZIT™ Cheese Cultures
- YO-MIX™ Yoghurt & Fresh Dairy Cultures

How to choose the right dairy culture?

Dairy applications	Trademark	Product range	Description
Ripened cheese	CHOOZIT™	CHOOZIT™ lactic offer	Acidifying cultures (homo and heterofermentative, meso and thermophilic)
Ripened cheese	CHOOZIT™	CHOOZIT™ PC	White moulds (<i>Penicillium candidum</i>)
Ripened cheese	CHOOZIT™	CHOOZIT™ P. roqueforti	Blue moulds (<i>Penicillium roqueforti</i>)
Ripened cheese	CHOOZIT™	CHOOZIT™ Geo	Geotrichum (moulds and yeasts types)
Ripened cheese	CHOOZIT™	CHOOZIT™ CUM, KL, DH, R2R	Yeasts (<i>Candida utilis</i> , <i>Kluyveromyces lactis</i> , <i>Debaryomyces hansenii</i> , <i>Rhodospiridium infirmominatum</i>)
Ripened cheese	CHOOZIT™	CHOOZIT™ FR	Corynebacteria (<i>Brevibacterium linens</i>)
Yoghurts and yoghurt type	YO-MIX™	YO-MIX™ Real	Acidifying, texturising and flavouring cultures (blends of <i>Streptococcus thermophilus</i> and <i>Lactococcus bulgaricus</i> only)
Yoghurts and yoghurt type	YO-MIX™	YO-MIX™ Multi	Acidifying, texturising and flavouring cultures (blends containing multiple species: <i>Streptococcus thermophilus</i> is combined with one or more of the following: <i>Lactococcus bulgaricus</i> , <i>Lactococcus lactis</i> , <i>Lactococcus acidophilus</i> , <i>Bifidobacterium</i> species)
Fresh cheese, quark, cottage cheese, sour cream, Leben, Tvarog, buttermilk	CHOOZIT™	CHOOZIT™ lactic offer	Acidifying cultures (mesophilic cultures alone or as blend with thermophilic cultures, homo and heterofermentative)
Kefir, kefir drink	Kefir cultures		Acidifying, texturising and flavouring cultures (blend of kefir grains microflora, yeast and Lactococci mainly isolated from kefir grains)