

**MOGUNTIA FOOD GROUP**

Flavoursome solutions since 1903

# Starter cultures

Overview of products



# Overview of applications

Starter culture	Curing process		Fresh Raw sausage		Firm Raw Sausage		Fresh Cured Goods
	Nitrite curing salt	Nitrate cooking salt	spreadable	firm	fast matured	slowly matured	
AromaSTART®	X X X	X X X	o	X	X	X X X	-
BESSASTART®	X X X	X X X	o	X X	X X	X X	-
FixSTART®	X X X	X X X	o	X X X	X X X	X X	-
MildSTART® FB-CA4 <b>NEU</b>	X X X	X X X	X X X	X X X	X X X	X	-
MildSTART® Rubin	X X X	X X X	X	X	X X	X X X	-
MouldSTART® PN1 <b>NEU</b>	X X	X X X	-	X	X X X	X X X	X
PökelSTART® + aromatic <b>NEU</b>	X X X	X X X	-	-	-	-	X X X
PökelSTART® CB-CA2 <b>NEU</b>	X X X	X X X	X X	X	-	-	X X X
PrestoSTART® + aromatic	X X X	X X X	X	X	X X X	X	-
PrestoSTART® FF-CS2 <b>NEU</b>	X X X	X X X	X X X	X X X	X X X	X	-
ProtectSTART®	X X X	-	X X X	o	o	o	X X
RedSTART® + aromatic	X X X	X X X	X X	X X	o	o	X X

x = recommended

x x = very much recommended

x x x = particularly recommended

- = not recommended

o = possible



Hardly any area of food research is as intricate as the topic of starter cultures. The complexity of the suitable strains of micro-organisms demand years of research and development work as well as practical trials. With over 20 years' experience in the area of research, development as well as own production and the sale of starter cultures, Moguntia is your competent partner in this challenging area. Through the application of starter cultures the production of spreadable and fast matured products can not only be standardized, but also made safer. Apart from a reduction in the costs of production, the use of starter cultures brings with it the following advantages:

- an increase in product safety
- an increase in product quality
- control of the fermentation process
- prevention of defective products

page	starter culture							
p. 4	AromaSTART®	●●●	●●●	●○○	●●○	●●○	> 28°C	●○○
p. 5	BESSASTART®	●●○	●●○	●○○	●○○	●●○	> 28°C	●○○
p. 6	FixSTART®	●●○	●●○	●○○	●○○	●●○	> 28°C	●●○
p. 7	MildSTART® FB-CA4 <b>NEU</b>	●●○	●●●	●●●	●●○	●●●	20-26°C	●●●
p. 8	MildSTART® Rubin	●●●	●●●	●○○	●●○	●●○	> 28°C	●●○
p. 9	MouldSTART® PN1 <b>NEU</b>	●●●	●●●	●○○	●●○	●●○	22-26°C	●○○
p. 10	PökelSTART®	●●○	●●●	●●●	●●●	●●●	> 6°C	●●●
p. 11	PökelSTART® aromatic <b>NEU</b>	●●●	●●●	●●●	●●●	●●●	> 6°C	●●●
p. 12	PökelSTART® CB-CA2 <b>NEU</b>	●●●	●●●	●●●	●●●	●●●	> 0-6°C	●●●
p. 13	PrestoSTART®	●●○	●●○	●●●	●○○	●●●	20-26°C	●●●
p. 14	PrestoSTART® aromatic	●●○	●●●	●●●	●○○	●●●	20-26°C	●○○
p. 15	PrestoSTART® FF-CS2 <b>NEU</b>	●●○	●●○	●●●	●●○	●●●	20-26°C	●●●
p. 16	ProtectSTART®	●●○	●○○	●●●	●●○	●●●	18-22°C	●○○
p. 17	RedSTART®	●●●	●●●	●○○	●●●	●○○	> 6°C	●○○
p. 18	RedSTART® aromatic	●●●	●●●	●○○	●●●	●○○	> 6°C	●○○

## legend

						
Farbausprägung	Aromabildung	Konkurrenzflora	Rest-Nitritgehalt	Produktsicherheit	Aktivität	Geschwindigkeit

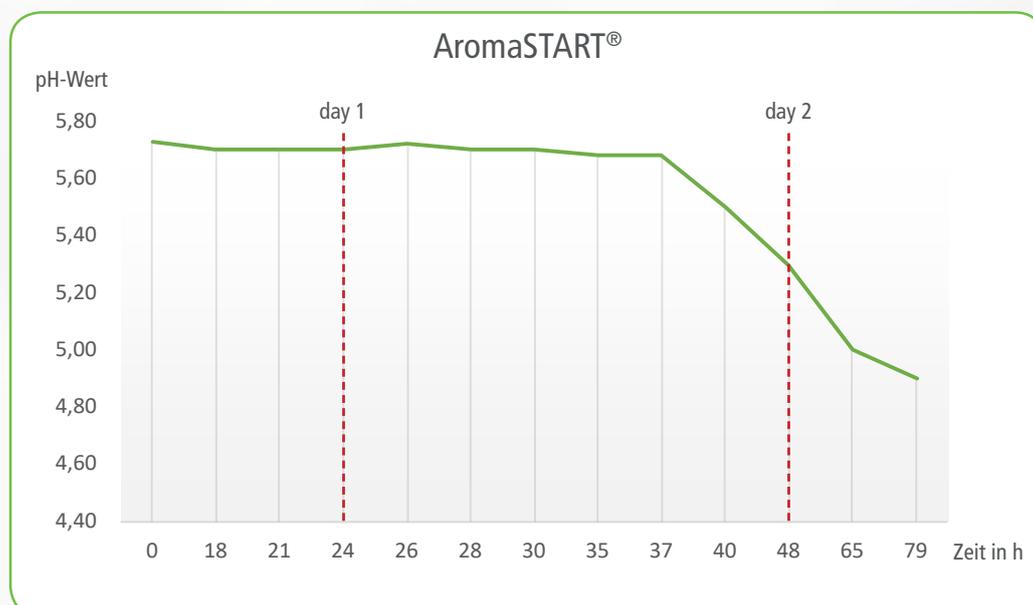
## Characteristics

Our classic product for the production of particularly flavoursome raw sausages. Apart from the characteristic formation of flavour by yeasts, this very traditional multi strain culture is outstanding in respect to particularly good colouring. In the course of the maturing process, a dominant competitive flora is established and undesirable microorganisms are inhibited (displacement effect). In addition this starter culture supports a controlled acidic reaction in order to emphasize once again the characteristics of the salami.

	Excellent colouring	
	Particularly mild flavour, as supported by yeast	
	Strong in the rivalry with the competitive flora	
	Very good reduction of the nitrite residue	
	Very good product safety and quality	
	Best activity with higher temperatures	
	Traditional speed	

## Areas of application

With its very mild lactic acid promotion agents and the excellent reddening qualities of the staphylococci, the AromaSTARTR culture is perfectly suited for classical artisan and traditional products. Time plays an important role. pH-value



# BESSASTART®

Art.Nr. M8920 03

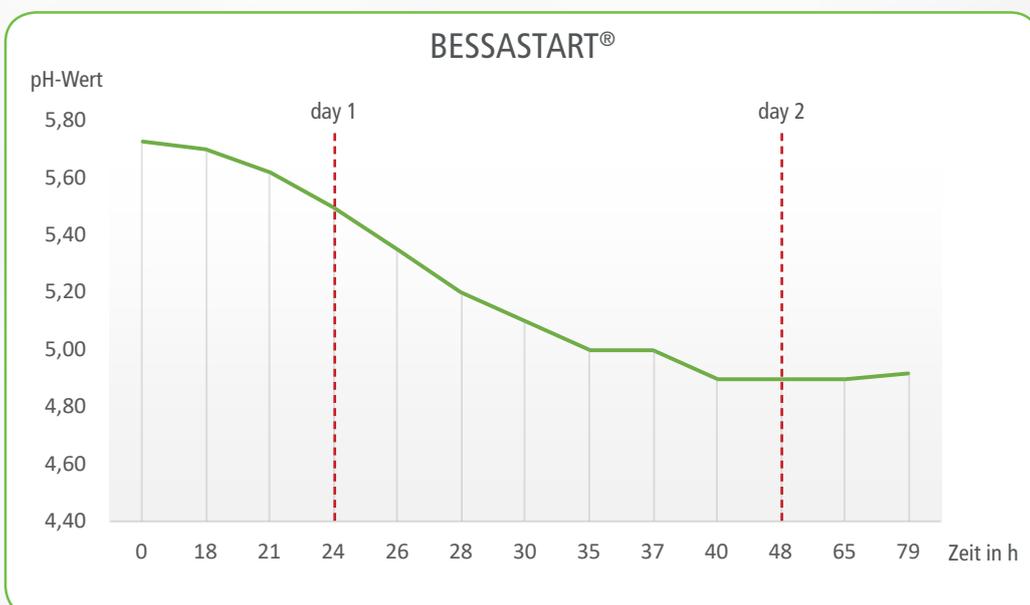
## Characteristics

This starter culture from the house Moguntia has a long tradition. It is perfectly designed to be used with our BESSAVITR seasoning compound and when combined these products provide the perfect basis for the production of high quality raw sausages. Characteristic for this culture is its activity at temperatures above 28°C, which makes it a particularly robust culture and therefore offers a corresponding degree of product safety.

 Very good colouring	
 Very mild flavour	
 Strong in the rivalry with the competitive flora	
 Good reduction of the nitrite residue	
 Very good product safety and quality	
 Best activity at higher temperatures	
 Traditional speed	

## Areas of application

BESSASTART cultures are a very good choice for traditional applications, e.g. for the production of Polish Raw Sausages, due to their mild lactic acid agents and the excellent reddening qualities of the staphylococci.



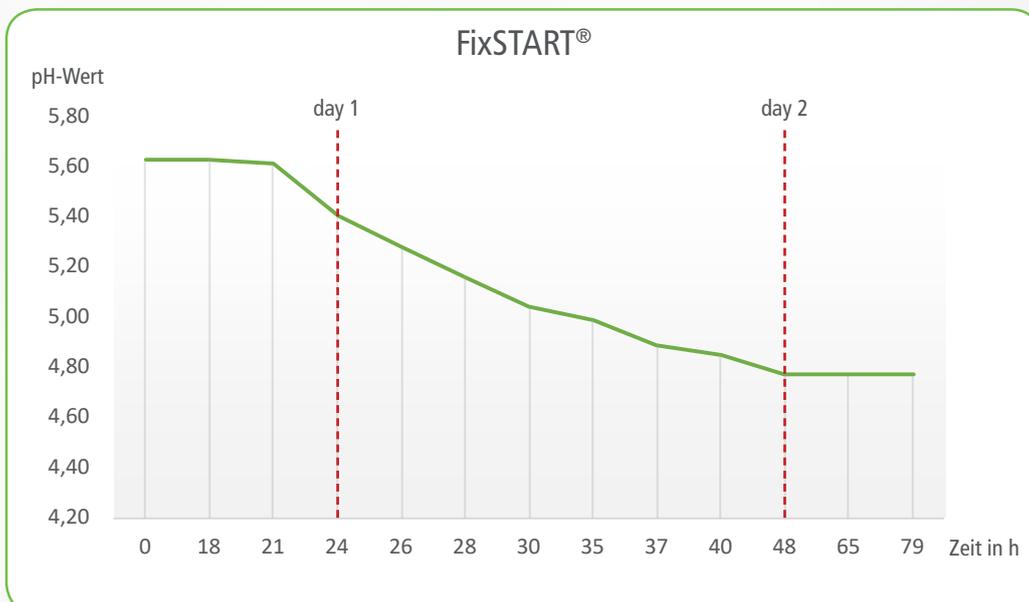
## Characteristics

The name says it all. Our FixSTART starter culture stands for a particularly fast reduction of the pH-value, however without sacrificing colour and flavour. This culture too manages to establish a dominant competitive flora at higher temperatures ( $\geq 28^{\circ}\text{C}$ ) and displace unwanted microorganisms; in that way it improves product safety.

 Very good colouring	
 Very mild flavour	
 Strong in the rivalry with the competitive flora	
 Good reduction of the nitrite residue	
 Very good product safety and quality	
 Best activity at higher temperatures	
 Traditional speed	

## Areas of application

The gentle and mild lactic acid promotion agents and the excellent reddening qualities of the staphylococci make the FixSTART cultures your first choice for bigger challenges. FixSTART is appropriate for any kind of application, however, it is particularly suitable for products like Landjäger sausage that have a shorter residence time as they are processed at higher temperatures.



# MildSTART<sup>®</sup> FB-CA4

Art.Nr. M8943 03

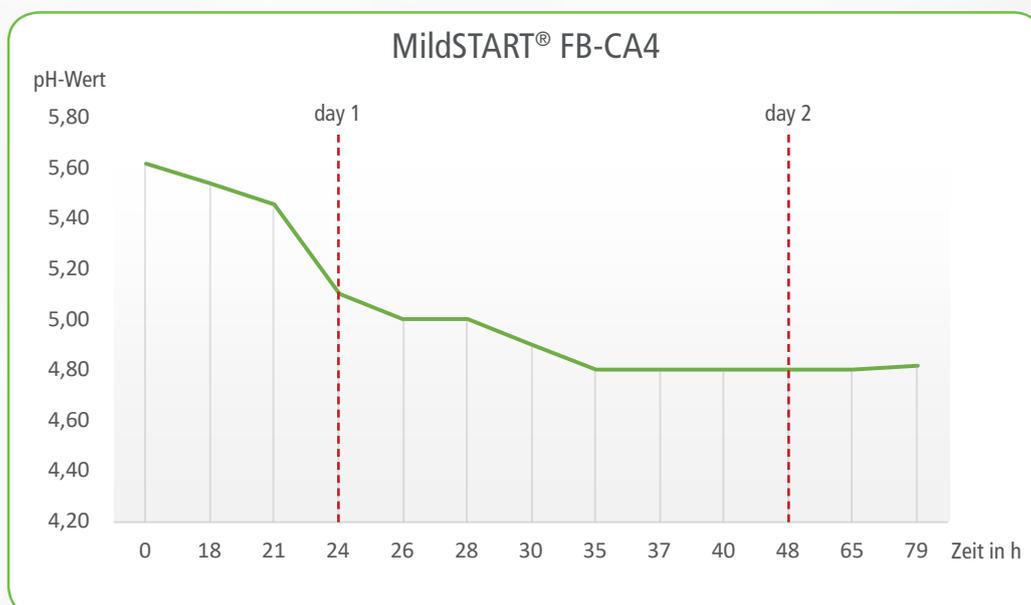
## Characteristics

MildSTART FB-CA4 is one of the youngest members of our starter culture family. It is a multi strain culture for establishing a dominant competitive flora and inhibiting undesirable microorganisms (displacement effect). MildSTART FB-CA4 is characterized by a high competitive flora combined with nitrite and nitrate activity. The gentle lactic acid ensures a swift drop in the pH value while creating a flowery and mild taste. The addition of Pediococci acidilacti that develop antagonistically active metabolites (enzymes) achieves a positive inhibition of *Listeria monocytogenes*.

 Good colouring	
 Particularly mild flavour	
 Particularly strong in the rivalry with the competitive flora	
 Very good reduction of the nitrite residue	
 Highest product safety and quality	
 Higher activity at medium temperatures	
 Very high speed	

## Areas of application

The MildSTART FB-CA4 culture is perfectly developed for the high demands of industrial and artisan salami production.



# MildSTART<sup>®</sup> Rubin

Art.Nr. M55002 50

## Characteristics

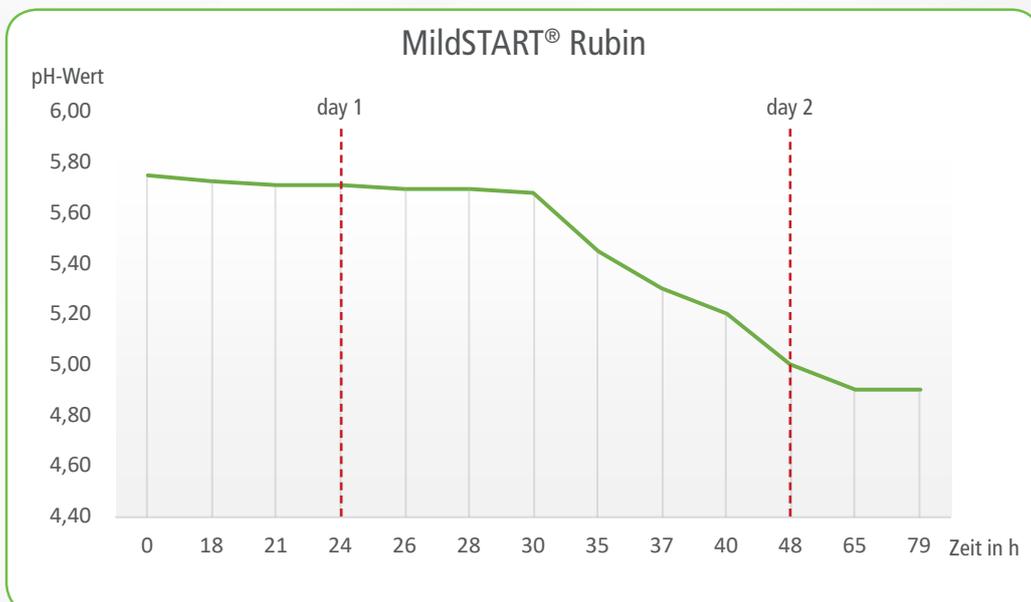
Do you want to achieve particularly mild acidity? Then this is the culture for you! Our MildSTART Rubin stands out not just because of its particularly mild flavour, but because the use of a xylose means that this starter culture produces a fantastic colouring.

 Excellent colouring (Xylosus)	
 Particularly mild flavour	
 Strong in the rivalry with the competitive flora	
 Very good reduction of the nitrite residue	
 Very good product safety and quality	
 Higher activity at higher temperatures	
 High speed	

## Areas of application

The core application area of MildSTART Rubin are classic traditional and trade products due to the mild lactic acid agents and the excellent reddening qualities of the staphylococci of the MildSTART Rubin culture. Time plays an important role here.

The addition of a specially screened xylose creates good colouring and a flowery bouquet which makes the MildSTART Rubin culture an all-round product for the production of traditional raw sausages.



# MouldSTART<sup>®</sup> PN1

Art.Nr. M8946 03

## Characteristics

MouldSTART CN1 is the ideal surface culture on the basis of *Penicillium nalgiovense* that is excellently suited for the production of dried, fermented raw sausages and raw cured goods. The mould culture develops a very white and fine lawn, which makes it the preferred choice for the production of raw sausages with noble mould coating.

 Very good colouring



 Particularly mild flavour as supported by yeast



 Strong in the rivalry with the competitive flora



 Very good reduction of the nitrite residue



 Very good product safety and quality



 Higher activity at medium temperatures



 Traditional speed



## Production note

Mix one bag MouldSTART CN1 with 10l of cold tap water and let it steep for 2 hours, stir several times during this process. Then briefly dip the freshly filled sausages into the liquid, alternatively spray or shower them. It is important to ensure full use (growth period normally at 24°C). If the spraying, dipping or showering takes place 2 or 3 days afterwards, it is a good idea to rinse the salamis or raw ham with warm water beforehand, in order to remove fat or protein from the surface.



# PökelSTART®

Art.Nr. M8928 03

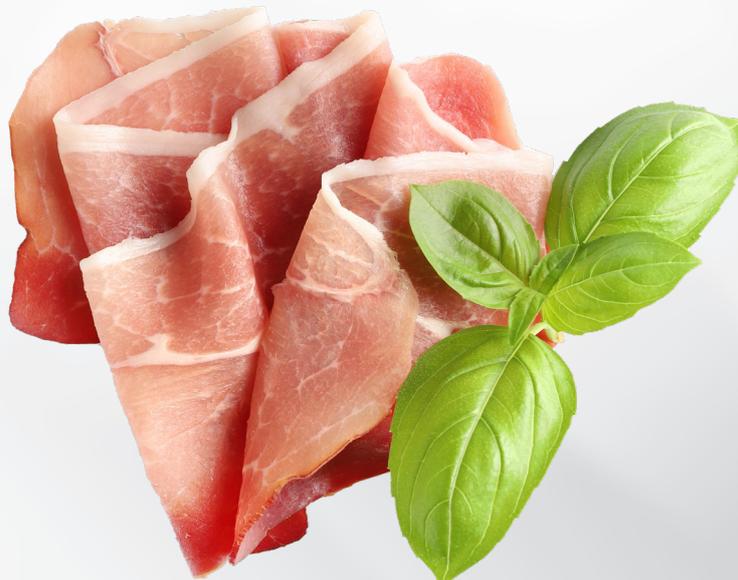
## Characteristics

This starter culture is particularly suited for the production of raw cured products. It convinces by its strong reddening and its characteristic flavour due to the particularly high nitrite and nitrate activity caused by *Staphylococci carnosus* and *xylosus*.

 Excellent colouring	
 Particularly mild flavour as supported by <i>Staph.xylosus</i>	
 Strong in the rivalry with the competitive flora	
 Excellent reduction of the nitrite residue	
 Good product safety and quality	
 Higher activity at lower temperatures	
 Traditional speed	

## Areas of application

The excellent reddening qualities of the staphylococci make PökelSTART cultures the optimal choice when dealing with classic trade and traditional products or spreadable products. PökelSTART creates a fantastic aroma and display of colours as by magic, due to its proteolysis and lipolysis. The PökelSTART products are also excellently suited as an addition to existing maturing cultures, if a particularly pronounced flavour or intensive colour is desired.



# PökelSTART<sup>®</sup> aromatic

Art.Nr. M8947 03

## Characteristics

Just like the classic PökelSTART, this culture is suitable for the production of raw cured goods. With the support of yeasts PökelSTART Aromatic can help you achieve a particularly intense and characteristic flavour. Due to the use of *Staphylococcus carnosus*, this culture has a particularly high nitrite and nitrate activity.

 Very good colouring	
 Particularly mild flavour as supported by yeast	
 Strong in the rivalry with the competitive flora	
 Excellent reduction of the nitrite residue	
 Good product safety and quality	
 Higher activity at lower temperatures	
 Traditional speed	

## Areas of application

Both PökelSTART products are characterized by the excellent reddening qualities of the staphylococci. They are therefore particularly suitable for classic artisan products as well as traditional products and reach a particular colouring and plenty of flavour.



# PökelSTART<sup>®</sup> CB-CA2

Art.Nr. M8944 03

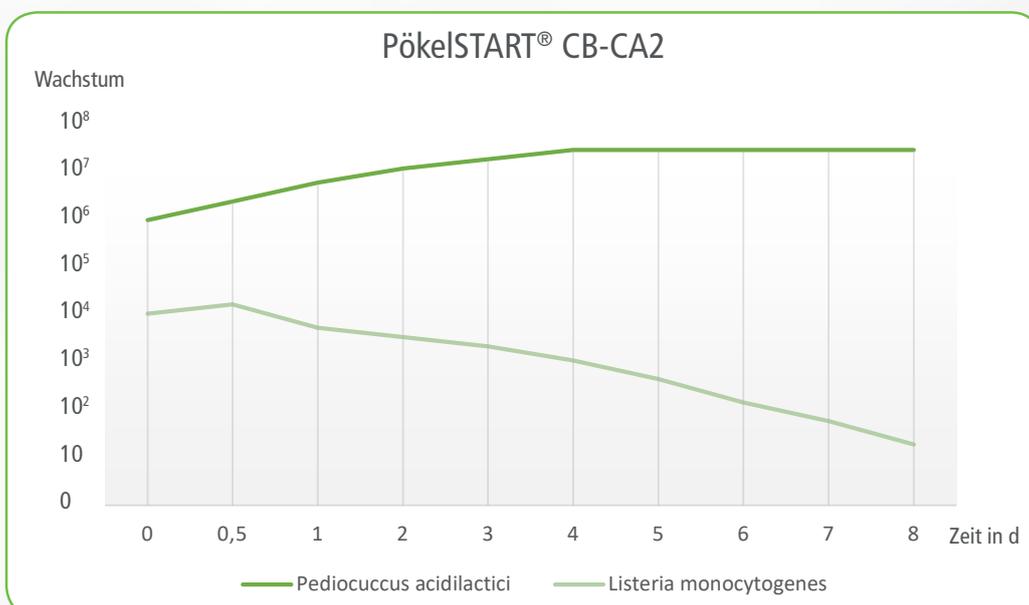
## Characteristics

A multi strain culture for establishing a dominant competitive flora and inhibiting undesirable microorganisms (displacement effect). Just as our other PökelSTART starter cultures it is characterized by high nitrite and nitrate activity. The addition of *Pediococcus acidilactici* of the antagonistically active metabolites (enzymes) causes a positive inhibition of *Listeria monocytogenes* which considerably increases product safety.

 Very good colouring	
 Very mild flavour	
 Particularly strong in the rivalry with the competitive flora	
 Excellent reduction of the nitrite residue	
 Highest product safety and quality	
 Higher activity at lower temperatures	
 Traditional speed	

## Areas of application

The excellent reddening qualities of the staphylococci make the PökelSTART CB-CA2 culture the optimal choice when dealing with classic trade and traditional raw ham products.



# PrestoSTART®

Art.Nr. M8932 03

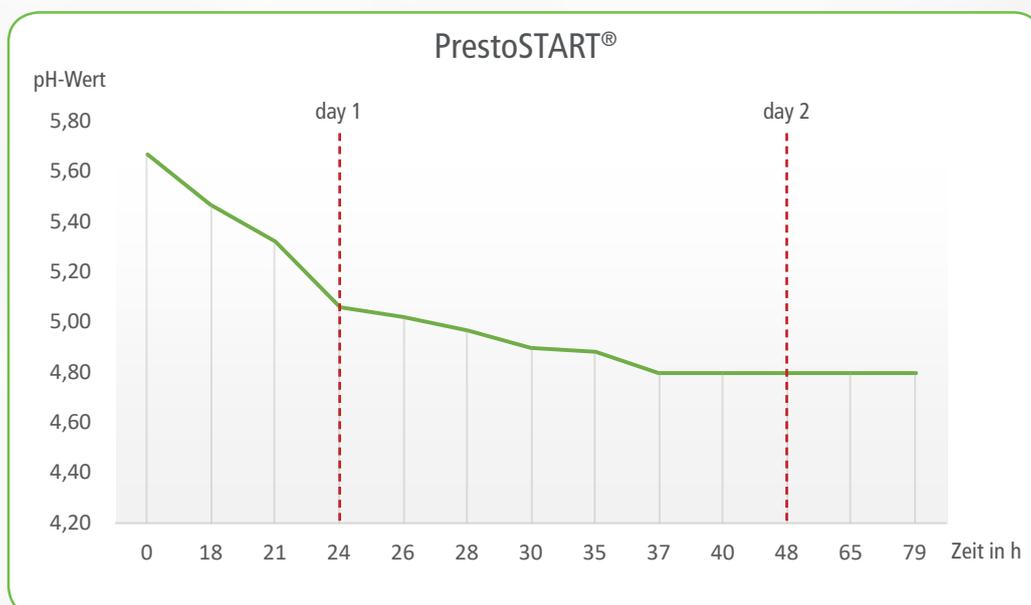
## Characteristics

One of our fastest multi strain cultures. PrestoSTART reaches the desired final pH-value of 5 after only 24 hours! This culture works best in a temperature range between 20°C and 24°C and is very strong in competition with the rival flora. The displacement effect contributes to a particularly high product safety.

 Very good colouring	
 Very mild flavour	
 Particularly strong in the rivalry with the competitive flora	
 Good reduction of the nitrite residue	
 Highest product safety and quality	
 Higher activity at medium temperatures	<b>20-26°C</b>
 Very high speed	

## Areas of application

The well balanced, mild lactic acid agents and the excellent reddening qualities of the staphylococci make PrestoSTART cultures very suitable for a fast maturing application. This culture can really do it all!



# PrestoSTART<sup>®</sup> aromatic

Art.Nr. M8926 03

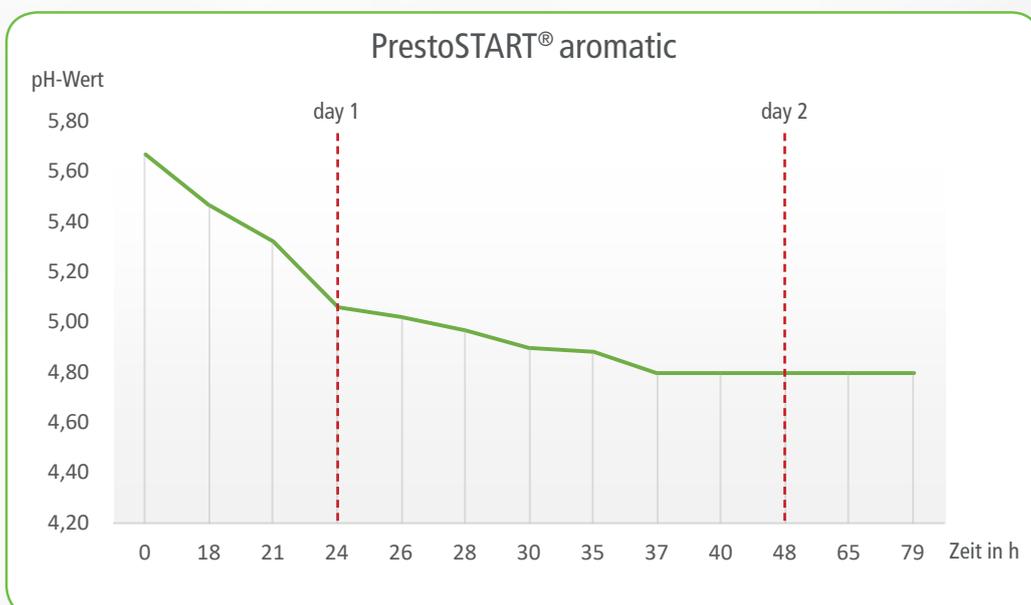
## Characteristics

Just as with our classic PrestoSTART starter culture, the primary focus is flavour. What is special however (as in the case of all our Aromatic starter cultures) is the addition of a yeast binder that once again particularly emphasizes the already unique flavour profile.

 Very good colouring	
 Particularly mild flavour, as supported by yeast	
 Particularly strong in the rivalry with the competitive flora	
 Good reduction of the nitrite residue	
 Highest product safety and quality	
 Higher activity at medium temperatures	
 Traditional speed	

## Areas of application

The well balanced, mild lactic acid agents and the excellent reddening qualities of the staphylococci make PrestoSTART cultures the first choice for a fast maturing application. It is a very good all-round starter culture with the flavour supported by yeast, which after all helps to produce (almost) everything.



# PrestoSTART<sup>®</sup> FF-CS 2

Art.Nr. M8942 03

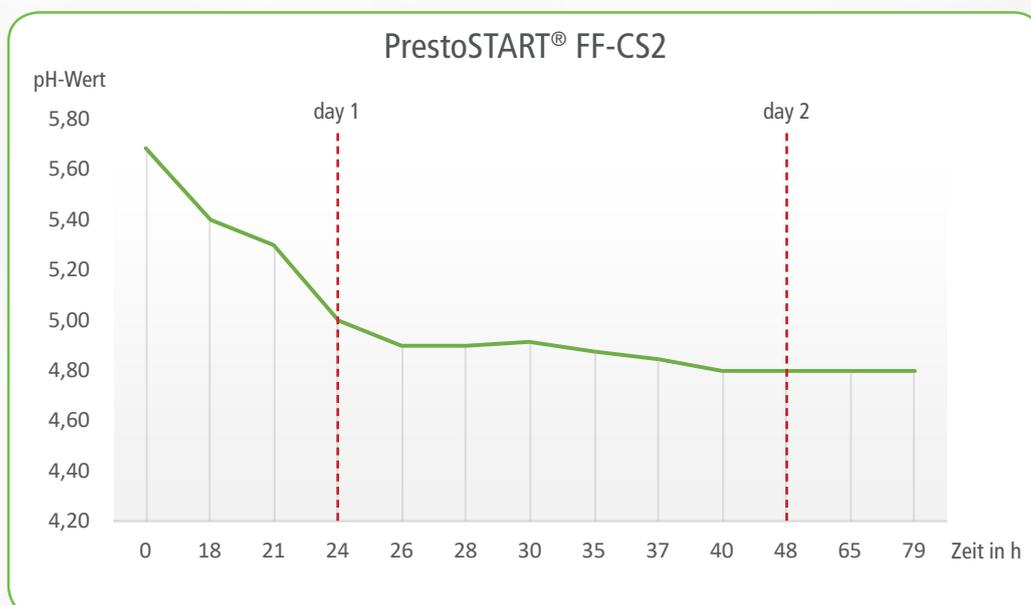
## Characteristics

Our new and particularly effective member of the PrestoSTART family. Due to its dominant competitive flora it is particularly strong when it is a question of inhibiting unwanted microorganisms. Just as in with the other PrestoSTART starter cultures, the well balanced lactic acid ensures a particularly fast pH value drop and is enhanced through its flowery mild flavour.

 Very good colouring	
 Very mild flavour	
 Particularly strong in the rivalry with the competitive flora	
 Good reduction of the nitrite residue	
 Highest product safety and quality	
 Higher activity at medium temperatures	<b>20-26°C</b>
 Very high speed	

## Areas of application

The excellent competitive flora makes the PrestoSTART FF-CS2 culture the optimal choice when dealing with industrial and artisan salamis. No matter whether thick or thin calibre – with our adapted quality supplements, for example FF 110 or a corresponding maturing strategy we accept every challenge.



# ProtectSTART®

Art.Nr. M8929 03

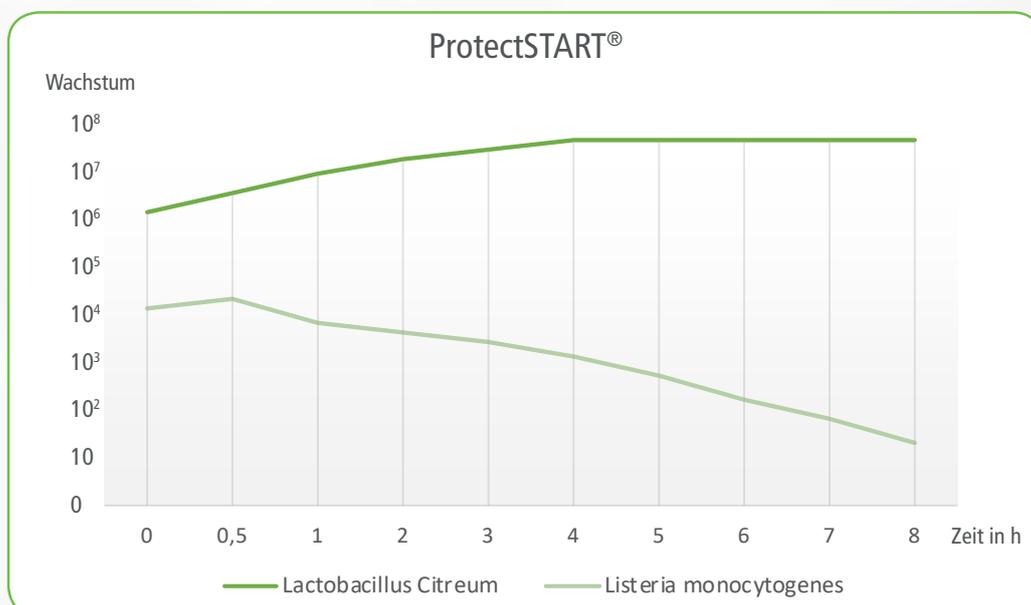
## Characteristics

Safety is a particularly important aspect with fresh and raw meat and sausage products. With our ProtectSTART we want to meet this requirement. By using a special *Lactobacillus citreum* the displacement effect for unwanted microorganisms is maximised to reach the highest degree of product safety even in sensitive products like for example mettwurst.

 Very good colouring	
 Mild flavour	
 Particularly strong in the rivalry with the competitive flora	
 Very good reduction of the nitrite residue	
 Highest product safety and quality	
 Higher activity at medium temperatures	<b>18-22°C</b>
 Traditional speed	

## Areas of application

Our *Lactobacillus citreum* establishes an occupation flora to suppress *Listeria monocytogenes*. It is particularly suited for all fresh and raw products and has outstanding reddening qualities due to staphylococci. These mean that ProtectSTART cultures are a very good choice in respect to safety. The optimal effect is achieved in combination with BESSAVITR maturing preparations.



# RedSTART<sup>®</sup>

Art.Nr. M8927 03

## Characteristics

The name says it all: our RedSTART starter cultures stand for particularly intense colouring. Its high nitrate and nitrite activity and particularly mild flavour due to the use of a *Staphylococcus xylosus*, this starter culture is the top choice for classic artisan products that are produced with GDL. RedSTART starter cultures prefer cooler temperatures and significantly support the development of colour and flavour.

 Very good colouring



 Particularly mild flavour due to support of *Staph.xylosus*



 Strong in the rivalry with the competitive flora



 Excellent reduction of the nitrite residue



 Good product safety and quality



 Higher activity at lower temperatures



 Traditional speed



## Areas of application

RedSTART starter cultures are particularly recommended for classic artisan GDL products due to the excellent reddening of the staphylococci. In combination with our BESSAVIT and Fixreif products, RedSTART creates a fantastic aroma and display of colours as by magic, due to its proteolysis and lipolysis. Both RedSTART products are of course also excellently suited as an addition to other starter cultures if more colour and flavour is desired.



# RedSTART<sup>®</sup> aromatic

Art.Nr. M8925 03

## Characteristics

Our classic RedSTART supplemented by a yeast agent; in this way RedSTART Aromatic provides not only the outstanding colour, but also a unique flavour profile and adds the special something to raw sausages.

 Excellent colouring	
 Particularly mild flavour due to support of yeast	
 Strong in the rivalry with the competitive flora	
 Excellent reduction of the nitrite residue	
 Good product safety and quality	
 Higher activity at lower temperatures	
 Traditional speed	

## Areas of application

For classic artisan GDL products the RedSTART starter cultures – providing support of flavouring yeast - are particularly recommended. In combination with our BESSAVIT and Fixreif products RedSTART creates a fantastic aroma and display of colours as by magic, due to its proteolysis and lipolysis. Both RedSTART products are of course also excellently suited as an addition to other starter cultures if more colour and flavour is desired.



# Production and Know How in-house

## MOGUNTIA TECHNICAL SOLUTIONS

The Moguntia Food Group has more than 20 years experience in the development, production and sale of starter cultures.

Every step in the production process of our starter cultures lies in our own hands and therefore is subject to the highest quality standards.



Everything from one house: our spices, additives and maturing compounds are perfectly adapted to our starter cultures. This is something quite special on the market that only very few other companies can guarantee.

Our technological facilities allow a high degree of flexibility in the fermentation of small and large production units.

In addition, a variety of packaging types and quantities can be perfectly adapted to your batch size.

All products are tested during the production process according to a variety of quality assurance methods in our own laboratory in Switzerland as well as by the independent institute Arotop food&environment GmbH.

In collaboration with the independent institute Arotop food&environment GmbH and a number of Swizz universities we are working on various research projects.



# MOGUNTIA FOOD GROUP

Flavoursome solutions since 1903



*Indasia*

*Fleischer*

haya4you

nature's  
store

*Fosters*



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