

Lactose-free dairy products

The next generation of lactase

Novozymes Saphera®



Set a new standard
for production control and
for creating new high-quality
lactose-free dairy products

Saphera® is the only lactase on the market that achieves:

- Better control of lactose elimination
- Better sweetness stability during product shelf life
- Improved suitability in fermented dairy products

Dairy producers gain improved production control and the versatility to create high-quality lactose-free products with this innovative lactase. Originated from *Bifidobacterium bifidum*, Saphera® differs from traditional yeast-based products.

Better control of lactose elimination

With Saphera®, the desired lactose level can be more precisely measured and easily reached. This is because much less oligosaccharides are formed during the reaction compared to yeast lactases, particularly when producing 0.01% lactose-free milk.

Sweetness enhancement

Due to the formation of galactose and glucose, Saphera® enables the dairy producer to reduce the amount of added sugars and still achieve the same degree of sweetness in lactose-free dairy products. This offers the opportunity for cleaner, more attractive product labels.

Sweetness stability in sugared dairy products

With Saphera®, producers are able to maintain a stable level of sweetness and taste during the shelf life of sugared dairy products. This is due to the absence of invertase side activity.

Improved suitability in fermented dairy products

Saphera® is uniquely well suited for yogurt production, better than conventional yeast-based lactases. The pH and temperature profile, and the absence of invertase and amylase side activities make Saphera® the optimal solution.

Clean taste

Saphera® is exceptionally pure. This purity reduces the risk of off-flavors during shelf life, particularly useful in dairy products with long shelf life to keep a pure, clean and consistent natural milk flavor.

Broad application

Saphera® is applicable for a broad range of dairy products including fresh, ESL and UHT milk, milk drinks, cream, ice cream, fermented dairy products and dulce de leche. Saphera® is available in a variety of formulations to meet varying processing needs. The high product purity also enables improved filterability in UHT processes.

Get ahead

Staying ahead of changing markets requires the best technology to become even more flexible, efficient and profitable. That's how we transform the quality and sustainability of your business together. With Saphera® and our expertise, Novozymes can support you on that journey.

Novozymes Saphera® product range

Product	Product version	Activity
Saphera® 2600 L	Liquid version for use in batch process and in-line dosing systems (e.g. TetraPak Aldose)	2600 LAU(B)/g
Saphera® 900 LS	Sterile liquid version for use in aseptic in-line dosing systems (e.g. TetraPak FlexDos)	900 LAU(B)/g
Saphera® FMP L	Liquid version for use in fermented milk products	2600 LAU(B)/g

Novozymes Technical Service

Our experienced technical service representatives have a proven track record of optimizing processes for lower cost-in-use and better quality. Our technical service teams are located in every region of the world. We can help you optimize your process from within your factory, and we can assist you in developing new lactose-free products.

Quality you can trust

Novozymes is dedicated to quality. From the time a new idea is born to when it's an integrated part of your process, we continue to monitor our products. We provide safe production strains, and assessed and approved raw materials – under strict, controlled processes that have full traceability. All to ensure safe, stable solutions that add value for you.



Learn more

For more market insights and innovation inspiration, or to find out more about Saphera®, contact your local Novozymes representative at foodandbeverages@novozymes.com

About Novozymes

Novozymes is the world leader in biological solutions. Together with customers, partners and the global community, we improve industrial performance while preserving the planet's resources and helping build better lives. As the world's largest provider of enzyme and microbial technologies, our bioinnovation enables higher agricultural yields, low-temperature washing, energy-efficient production, renewable fuel and many other benefits that we rely on today and in the future. We call it Rethink Tomorrow.

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