

The purest crystalline soluble fiber Fibernova® Kestose

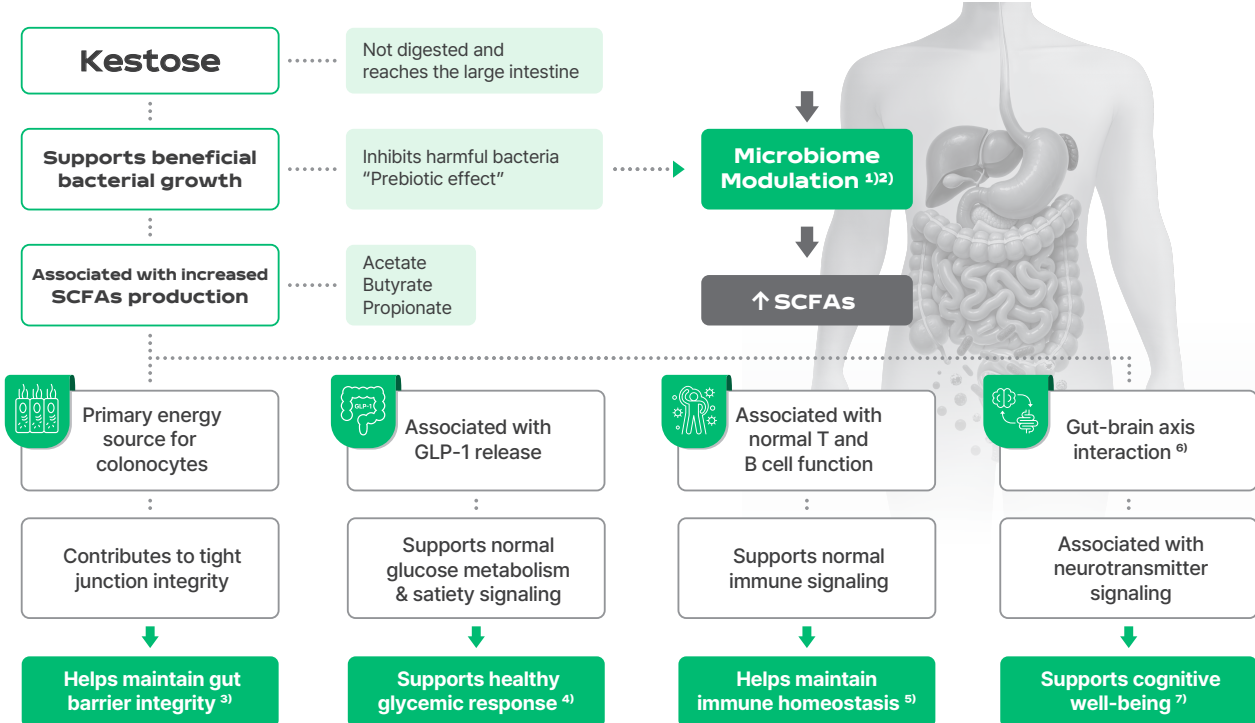
What is Samyang's next-gen fiber, Kestose?

Advanced prebiotic ingredient

Near-zero sugar & High fiber

Crystalline form scFOS

Prebiotic functionality for better-for-you innovation



1) O'Sullivan et al., Marine Drugs 2010, 8(7), 2038–2064
2) Watanabe et al., Nutrients 2021, 13(9), 2983

3) Ma et al., Animal Nutrition 2022, 9, 159–174

4) Noh et al., Nutrients 2026, 18(11), 1724 [SYC]

5-1) Kim et al., Frontiers in Microbiology 2024, 15, 1383779 [SYC]
5-2) Liu et al., Frontiers in Immunology 2023, 14, 1186892

6) Silva et al., Frontiers in Endocrinology 2020, 11, 25

7-1) Tanabe et al., Journal of Neurochemistry 2025
7-2) Cheng et al., General Psychiatry 2024, 37(1), e101374

* For informational purposes only. Based on published scientific literature. Research findings may vary depending on study design, dosage, population, and product formulation. These references are provided for scientific information purposes only and are not intended as claims for finished food or beverage products.

Smarter choice for enhanced nutritional value with fiber enrichment

Type	Fibernova® Crystalline Kestose	Fibernova® Kestose LS*
Kestose content (%)	≥ 98	≥ 80
FOS content (%)	≥ 99	≥ 82
Sugar content (%)	< 1	< 18
Relative sweetness**	30	30
Calories (kcal/100g)	202	170

* Dry solids ≥ 72%

** Relative sweetness referenced to 7% sucrose (sucrose=100)

* The labeling name is subject to revision following the final FDA GRAS approval status

: Kestose, 1-kestose, Fructooligosaccharides (FOS), scFOS, Oligofructose, Soluble fiber from sugar cane

Crystalline technology for superior product performance

Low hygroscopicity
minimizes caking for improved powder stability.

Excellent flowability
reduces dust generation for more efficient processing.

Uniform dispersibility
helps create a smoother texture with reduced stickiness.

Sugar-like sweetness and off-flavor masking deliver a clean, well-balanced flavor profile.

Solve your challenges with Fibernova® Kestose



Key challenge

Poor solubility and slow dissolution in water

Fibernova® Crystalline Kestose improves processability and drinking quality.

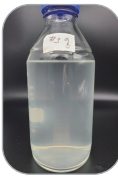
Crystalline structure provides excellent flowability, while its clean taste profile and off-note masking effect help improve flavor quality. High transparency after dissolution also contributes to a cleaner beverage appearance.

- ✓ Reduced sugar (< 1g/360ml) ↓95%
- ✓ Excellent source of fiber (16g/360ml)

Appearance

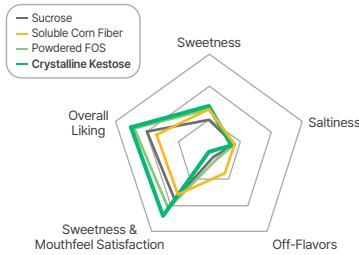


Sucrose



Crystalline Kestose

Sensory attributes



* Fibernova® Crystalline Kestose 5%



Key challenge

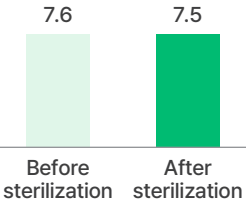
Strong protein odor and off-flavors

Fibernova® Crystalline Kestose improves flavor perception while supporting fiber fortification.

Sugar-like sweetness profile and off-note masking capability help reduce bitterness and off-flavors from protein sources. High dietary fiber content enables fiber enrichment without compromising processing stability under UHT conditions.

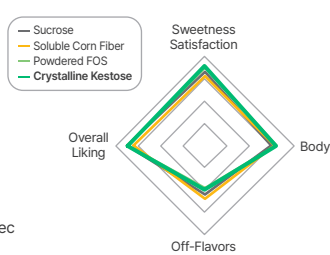
- ✓ Reduced sugar (< 1g/360ml) ↓99%
- ✓ Excellent source of fiber (26g/360ml)

Processing stability



* Sterilization condition: 139°C (282°F), 35sec

Sensory attributes



* Fibernova® Crystalline Kestose 8%



Key challenge

Difficulty maintaining bar shape and structural integrity

Fibernova® Kestose LS helps maintain texture and binding performance.

Binding characteristics contribute to improved structural integrity, helping maintain bar shape and reduce crumbling and cracking during processing and storage. In addition, it provides a softer texture and improved eating quality.

- ✓ Reduced sugar (5g/40g) ↓30%
- ✓ Excellent source of fiber (10g/40g)

Appearance

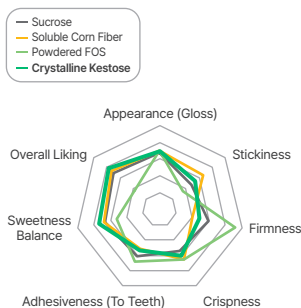


Soluble Corn Fiber Syrup



Kestose Syrup

Sensory attributes



* Fibernova® Kestose LS + Grain fibers 25%



Key challenge

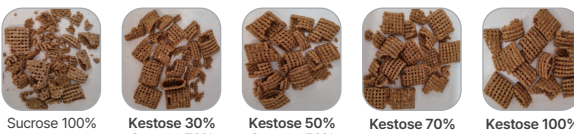
Fragility and crumbling during handling

Fibernova® Crystalline Kestose helps maintain coating integrity while reducing sugar.

The level of Kestose can be adjusted to control cereal softness and reduce coating brittleness. This helps minimize breakage during processing and distribution while maintaining coating quality.

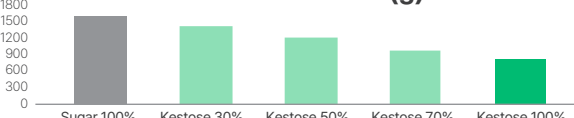
- ✓ Reduced sugar (6g/40g) ↓50%
- ✓ Excellent source of fiber (5.7g/40g)

Structural durability



* Dropped from a height of 2m ** Kestose can replace 30% to 100% of sucrose

Texture-Hardness(g)



* Fibernova® Crystalline Kestose 50% + Sucrose 50%

Regulatory status

Fibernova® Kestose is classified as a source of dietary fiber in compliance with US FDA regulation 21 CFR 101.9(c)(6)(i) and classified as dietary fiber under COMMISSION DIRECTIVE 2008/100/EC ANNEX II in the EU. With a certain amount of Fibernova® Kestose added, 'High source of fiber' or 'Good source of fiber' can be claimed on the front-of-package of final products.