Product information
Leaflet

GLYCARE® 3SL and 6SL

Human Milk Oligosaccharides brought to you by dsm-firmenich, at the forefront of HMO innovation

Early life nutrition innovation from dsm-firmenich

Providing the best infant nutrition is vital for all families. That's why dsm-firmenich is proud to offer GLYCARE® HMOs. These compounds are developed with science-backed quality and safety at their core. As a fully integrated manufacturer with one of the broadest HMO offerings, dsm-firmenich can reliably provide ease-of-scale no matter the size of your business. Partner with us to get your products one step closer to what nature intended.

Partner with dsm-firmenich for access to our broad portfolio of products, customized solutions, and expert services aimed at supporting your entire product life cycle, from concept to consumption.

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Human Milk Oligosaccharides (HMOs): delivering the benefits nature intended

Uniquely human

- HMOs are complex carbohydrates found in human breastmilk
- No other mammal has near the concentration and complexity of structures in their milk1–6

Abundance and diversity in human milk

- 3rd largest component of human milk[7]
- >200 different HMOs identified in human milk, a diversity not seen in other animal milks[4–6]
- Variation occurs over lactation period, by maternal genetics, geographic region, and ethnicity[8,9]

Complex structures with potential functional benefits

- Help establish a balanced early-life microbiota[10,11]
- Contribute to immune system support[12–16]

3'Sialyllactose (3'SL) and 6'Sialyllactose (6'SL) are sialylated HMOs found in both colostrum and mature milk[19,20]

- Human milk is a rich source of sialic acid (~1 g/L), while cow's milk formulas naturally contain small amounts (0–0.25 g/L).[21]
- Emerging science indicates that sialylated HMOs may be utilized as building blocks for the brain and may have a nutritional role in brain development in early infancy.[22,23]

HMO functionality is structure-specific: not all HMOs serve the same purpose[24,25]

Potential functional benefits of GLYCARE® 3SL and 6SL, as demonstrated primarily in pre-clinical studies

- Emerging evidence suggests a nutritional role in supporting brain development and health[23,26,27]

- May support normal immune function[28–3]
- Stimulates the growth of beneficial bacteria, including bifidobacteria, alone or when combined[34–36]
- Emerging evidence suggests a possible role in deflecting the adhesion of undesirable microbes to cell walls[28–32]

- Emerging evidence suggests potential role in protecting cells in the intestines and skin37,38

Breastmilk – the gold standard

Breastmilk provides nutrients that are vital for an infant's growth and development and sets the standard in infant feeding.[39,40] Human milk oligosaccharides (HMOs) are the third largest solid component of human milk after lipids and lactose and a key differentiating feature between human milk and cow's milk. The unique structure, concentration, and variety of oligosaccharides in human milk sets them apart from those found in cow's milk.[41,42] Differences in health outcomes between breastfed and formula-fed infants may partly be explained by these features.[8,41,43,44]

HMOs stimulate the growth of beneficial bacteria

- When ingested, HMOs resist digestion and reach the colon mostly intact[42,45]
- By selectively feeding the gut with beneficial bacteria, HMOs enhance the growth of helpful bacteria like bifidobacteria and limit the nutrient supply for undesirable organisms[44,47,48]
- HMOs also support production of short chain fatty acids and other metabolites that work to create a community of healthy microbes in the GI tract[47–50]

GLYCARE® 3SL and GLYCARE® 6SL Product Information

- 5 years of shelf life from production date
- Purity levels from 88%
- White to off-white, homogenous, amorphous powder with a neutral to slightly sweet taste
- Contains up to 12% lactose§
- Manufactured without contact to latex, bisphenol A, or phthalates
- This product is free from: Animal derived ingredients (ADI), Allergens (except milk),§ Genetically modified organisms (GMO)¥

§ according to EC regulation 1169/2011 annex II
¥ according to EC regulation 1829/2003 and 1830/2003

Broad product portfolio and a leading HMO innovator

Proven, reliable supply that scales with you

Highest safety and quality standards

Largest global market access: 160+ countries*

* We are continuously expanding our global approval footprint across application areas. For more details, please ask for our Regulatory Overview.

For more information, get in touch with your dsm-firmenich representative, or visit www.dsm-firmenich.com/health-nutrition-care

dsm-firmenich GLYCARE® HMOs are produced to the highest quality of certifications, approvals, and procedures

ISO 9001:2015

FSSC 22000

SMETA

Halal

Kosher

The full GLYCARE® HMO portfolio

- GLYCARE® 2FL
- GLYCARE® LNnT
- GLYCARE® 2FL/DFL
- GLYCARE® 6SL
- GLYCARE® 3SL
- GLYCARE® LNT
- GLYCARE® 3FL
- GLYCARE® LNFP I

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