Product information
Leaflet

GLYCARE® LNT

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.

www.dsm-firmenich.com/health-nutrition-care

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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 milk[1–6]

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[8,9,25]

Complex structures with potential functional benefits

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

Lacto-N-tetraose (LNT): A neutral-core HMO found in both colostrum and mature milk[15,16]

- One of the most commonly detected and abundant HMOs in human milk[9,17–21]
- May support the immune response[23–24]
- Stimulates the growth of beneficial bacteria, including bifidobacteria[22,25–27]

HMO functionality is structure-specific: not all HMOs serve the same purpose[23,24]

Potential functional benefits of GLYCARE® LNT, as demonstrated primarily in pre-clinical studie

- May benefit gut health by supporting a favorable microbiome[22,25-27]

- Emerging evidence suggests a possible role in deflecting the adhesion of certain undesirable micro-organisms to specific human cells[28–31]
- In vitro evidence suggests LNT may hinder the growth of the undesirable micro-organism group B Streptococcus[24]

Breastmilk – the gold standard

Breastmilk provides nutrients that are vital for an infant's growth and development and sets the standard in infant feeding.[32,33] 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.[34,35] Differences in health outcomes between breastfed and formula-fed infants may partly be explained by these features.[8,34,36,37]

HMOs stimulate the growth of beneficial bacteria

- When ingested, HMOs resist digestion and reach the colon mostly intact[35,37]
- By selectively feeding the gut with beneficial bacteria, HMOs enhance the growth of helpful bacteria like bifidobacteria and limit the nutrient supplymfor undesirable organisms[25,35,38]
- HMOs also support production of short chain fatty acids and other metabolitesmthat work to create a community of healthy microbes in the GI tract[39–42]

GLYCARE® DFL product information

- 5 years of shelf life from production date
- Purity levels range from 70%
- 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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