Human milk oligosaccharides (HMOs)

Product Introduction

HMOs represent a crucial category of oligosaccharides, encompassing all oligosaccharides present in human milk. Constituting the second-largest carbohydrate and third-largest nutrient component in human milk following lactose, HMOs make up 10% of the dry matter of human milk. Their incorporation into infant formula as a functional ingredient is essential, playing a pivotal role in infant growth and development. Research indicates that HMOs serve as prebiotics, fostering a balanced intestinal microbial environment, while also contributing to immune defense regulation and promoting infant brain development and cognition. HMOs play an irreplaceable role in the overall growth and development of infants, influencing the internal composition of intestinal microflora and serving as an energy source for beneficial intestinal bacteria.

Numerous HMO components, exceeding a hundred, have been identified. These components primarily consist of five monosaccharides—glucose, galactose, N-acetylglucosamine, fucose, and sialic acid—bonded in diverse ways. They can be categorized into three main types: firstly, fucosylated neutral HMOs, constituting 35-50% of the total, with 2'-fucosyl galactose (2'-FL) representing all HMOs in this category. Secondly, non-fucosylated acidic HMOs make up 42-55% of the total, exemplified by lacto-N-neotetraose (LNnT). Lastly, sialylated acidic HMOs account for 12-14% of the total, with 6'-sialyllactose (6'-SL) being the most abundant.

Seebio offers the three aforementioned products and two other significant human milk oligosaccharides, namely 3-fucosyl lactose (3'-FL) and 3'-sialyllactose (3'-SL).

Applications

2'-FL promotes the growth of probiotics, enhances cognitive development, and boosts positive immunity. It is particularly advantageous for the normal immune system and digestive system development of premature infants. It finds applications in infant formula food, functional food, nutritional supplements, and special medical food.

LNnT shares similar functions with 2'-FL, additionally possessing anti-inflammatory properties that can enhance wound closure. It supports the normal immune system and digestive system development of premature infants. LNnT is suitable for use in infant formula food, functional food, nutritional supplements, and special medical food.

3'-FL selectively stimulates the growth of beneficial bifidobacteria, contributing to overall intestinal flora health. It is suitable for inclusion in infant formula food, functional food, functional beverages, nutritional supplements, and special medical food.

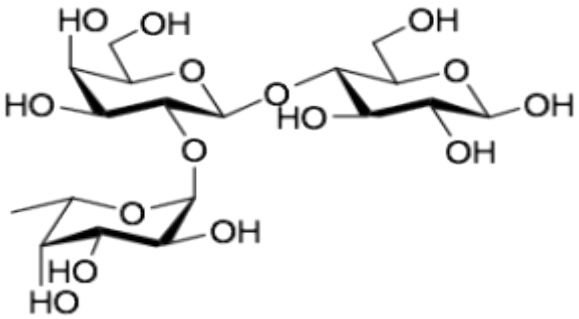
3'-SL supports infant brain development, reduces the adhesion of harmful bacteria and their proteins in the intestinal tract. It is applicable in infant formula food, functional food, functional drinks, nutritional supplements, and special medical food.

6'-SL supports infant brain development, reduces the adhesion of harmful bacteria and their proteins in the intestinal tract, and supports human immune function. It is suitable for use in infant formula food, functional food, functional beverages, nutritional supplements, and special medical food.

Product Information

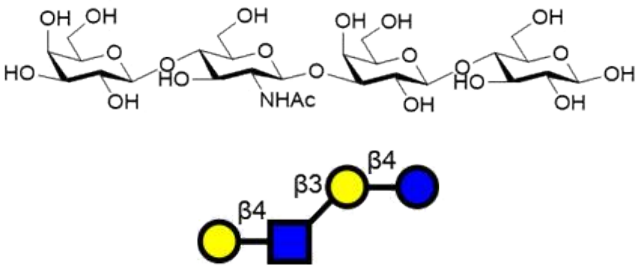
2'-Fucosyllactose(2'-FL)

Product Name: 2'-Fucosyllactose(2'-FL)
CAS No: 41263-94-9
Appearance: White to white-like powder
Purity: ＞95%
Mol. Formula: $C_{18}H_{32}O_{15}$
Mol. Weight: 488.44
Packaging: 10g, 200g, 1kg
Storage: at Room Temperature



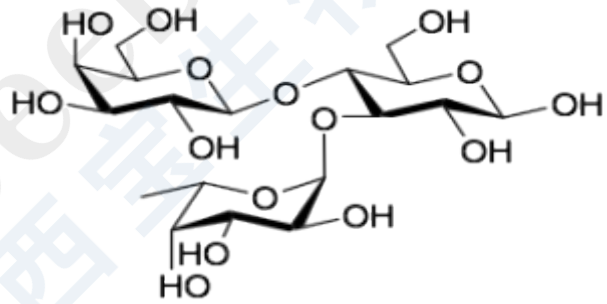
Lacto-N-neotetraose (LNnT)

Product Name: Lacto-N-neotetraose LNnT
CAS No: 13007-32-4
Appearance: White to off-white powder
Purity: ＞95%
Mol. Formula: $C_{26}H_{45}NO_{21}$
Mol. Weight: 707.63
Packaging: 10g, 200g, 1kg
Storage: at Room Temperature



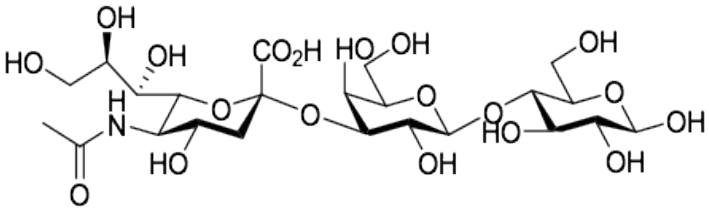
3'-Fucosyllactose (3'-FL)

Product Name: 3'-Fucosyllactose (3'-FL)
CAS No: 41312-47-4
Appearance: White to off-white powder
Purity: ＞95%
Mol. Formula: $C_{18}H_{32}O_{15}$
Mol. Weight: 488.44
Packaging: 10g, 200g, 1kg
Storage: at Room Temperature



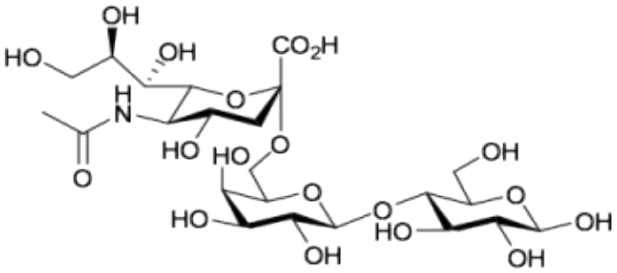
3'-Sialyllactose(3'-SL)

Product Name: 3'-Sialyllactose(3'-SL)
CAS No: 128596-80-5
Appearance: White to white-like powder
Purity: ＞95%
Mol. Formula: $C_{18}H_{32}O_{15}$
Mol. Weight: 655.53
Packaging: 10g, 200g, 1kg
Storage: at Room Temperature



6'-Sialyllactose (6'SL)

Product Name: 6’ -Sialyllactose (6'SL)
CAS No: 157574-76-0
Appearance: White to off-white powder or lump
Purity: ＞95%
Mol. Formula: $C_{18}H_{32}O_{15}$
Mol. Weight: 655.53
Packaging: 10g, 200g, 1kg
Storage: at Room Temperature



Product List

Available from mg to gram

Product name	Cas No	Purity	Packing
2'-Fucosyllactose(2'-FL)	41263-94-9	95%-98%	10g, 200g, 1kg
Lacto-N-neotetraose(LNnT)	13007-32-4	95%-98%	10g, 200g, 1kg
3'-Fucosyllactose(3'-FL)	41312-47-4	95%-98%	10g, 200g, 1kg
3'-Sialyllactose(3'-SL)	128596-80-5	95%-98%	10g, 200g, 1kg
6’ -Sialyllactose(6'-SL)	157574-76-0	95%-98%	10g, 200g, 1kg

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