

A COMBINATION OF OLIGOSACCHARIDES DESIGNED TO CLOSELY MIMIC HUMAN MILK OLIGOSACCHARIDES (HMOS) IN BREAST MILK

HMOS ARE A DIVERSE POOL OF PREBIOTIC OLIGOSACCHARIDES¹

Prebiotics are non-digestible carbohydrate structures selectively utilized by host microorganisms conferring a health benefit to the host (ISAPP²); also known as food for 'good bacteria'.

QUANTITY

HMOS are 3rd largest components in breast milk²

HMOS are complex carbohydrates and present in a total quantity of ~12-15 g/L (in mature milk)^{2,3}

DIVERSITY

More than 1000 different HMOS in breast milk, of which >200 have been structurally identified⁴⁻⁶

HMOS are present in short chain (sc) and long chain (lc) oligosaccharides in a 9:1 ratio^{7,8}

For illustrative purposes only. Schematic representation of HMOS in breast milk.

FUNCTIONALITY

Functional benefits have been demonstrated for the diverse pool HMOS:

Microbiota development⁹⁻¹¹

Healthy stool characteristics¹²

Immune benefits^{10,13,14}

Brain building blocks^{10,15}

DANONE RESEARCH AND INNOVATION WAS THE FIRST TO INTRODUCE A PREBIOTIC MIXTURE scGOS/lcFOS (9:1)* IN 2002



SCGOS/LCFOs (9:1) WAS CREATED TO HELP TO MIMIC THE QUANTITY, DIVERSITY AND FUNCTIONALITY OF THE DIVERSE POOL OF HMOS IN BREAST MILK^{7,8,16}

QUANTITY + DIVERSITY

High quantity of oligosaccharides⁸

More than 100 structures of short and long chain oligosaccharides^{7,8}

scGOS/lcFOS (9:1)

FUNCTIONALITY

scGOS/lcFOS (9:1) has been shown to support a healthy gut and immune system development by:

Stimulating growth of beneficial bacteria^{16,19}

Stool softening closer to that of healthy breastfed infants^{12,18}

Suppressing growth of pathogens^{19,20}

Reducing the risk of infections²¹⁻²⁴

Over 40 clinical studies¹⁷

For illustrative purposes only. Schematic representation of scGOS/lcFOS (9:1).

SINCE 2014, IDENTICAL HMO STRUCTURES HAVE BECOME AVAILABLE TO BE SUPPLEMENTED TO INFANT FORMULA²⁵

The number of commercially available HMO structures is increasing. However, it is not yet possible to mimic the diverse and complex pool of HMOS in breast milk²⁵.

Although HMOs have been demonstrated to be safe²⁶, further research on their functionality is needed.

Short chain HMOs

For illustrative purposes only. Schematic representation of commercially available HMOs.

- Our prebiotic mixture scGOS/lcFOS (9:1)**
- ADDED TO OUR FORMULAS SINCE 2002
 - CLINICALLY PROVEN¹⁷
 - RECOGNIZED BY EXPERTS^{2,25}

THE DIVERSITY OF THE TOTAL POOL OF OLIGOSACCHARIDES EXTENDS EVEN FURTHER BY COMBINING HMOS & scGOS/lcFOS (9:1)

Combination of scGOS/lcFOS (9:1) & commercially available HMO

For illustrative purposes only. Schematic representation of scGOS/lcFOS (9:1) and commercially available HMO (2'-FL).

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