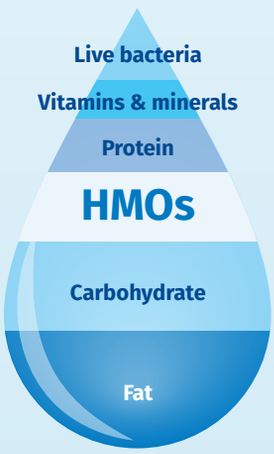
# Human Milk Oligosaccharides: a key component of human milk

**Human milk is the gold standard in infant nutrition. It is a complex and diverse matrix of nutrients that support healthy growth and development of infants.**




HMOs are the **3rd largest component** found in human milk, with over 200 structures identified[1].

## HUMAN MILK OLIGOSACCHARIDES (HMOs) WORK IN SYNERGY TO SUPPORT THE IMMUNE SYSTEM AND THE BRAIN THROUGH THE GUT

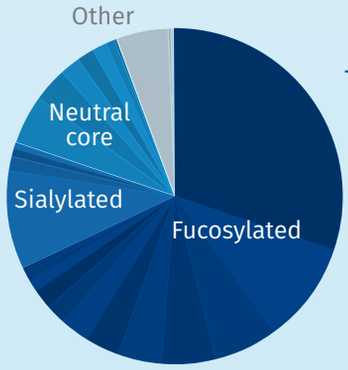
**MODULATES IMMUNE CELLS**
2-3

**PROTECTING EFFECT AGAINST PATHOGENS**
4-6

**PREBIOTIC EFFECT**
7-9
Stimulate growth and activity of beneficial bacteria

**SUPPORTS BRAIN DEVELOPMENT**
10-12

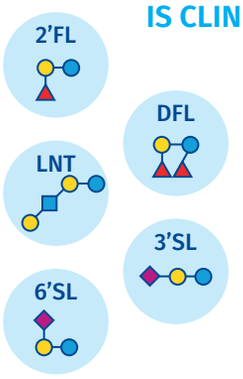
Most HMOs are classified into **3 classes**[1] defined by the nature of their structure.




There is a **growing body of evidence**, including clinical data, to support the use of HMOs from the 3 major classes and the role of combinations with **5 HMOs** in supporting healthy infant development and growth[9].

## SUPPLEMENTATION WITH 5 DIFFERENT HMOs

### IS CLINICALLY SHOWN[9] TO PROMOTE EARLY GUT DEVELOPMENT IN INFANTS SUPPORTING:




**A HEALTHY GUT BARRIER FUNCTION**

**GUT MATURATION AND DEVELOPMENT**

**THE INTESTINAL IMMUNE SYSTEM**

**THE GUT MICROBIOME**

**1.** Jantscher-Krenn & Bode 2012, **2.** Goehring 2016, **3.** Alliet 2022, **4.** Marriage 2015, **5.** Reverri 2016, **6.** Vanderplas 2022, **7.** Puccio 2016, **8.** Berger 2020, **9.** Bosheva 2022, **10.** Jacobi 2016, **11.** Hauser 2021, **12.** Wang 2019