



Oligosaccharide that holds nature as it is

Organic Galactooligosaccharide

Galactooligosaccharide(GOS)

As Galactooligosaccharide is a generic term for oligosaccharide containing Galactose as a main component, which is superior in intestinal regulation, immunopotential, and other physiological activities with galactosylactose particularly included in mother's milk. In addition, it has 40% sweetness compared to sugar and the softest sweetness.

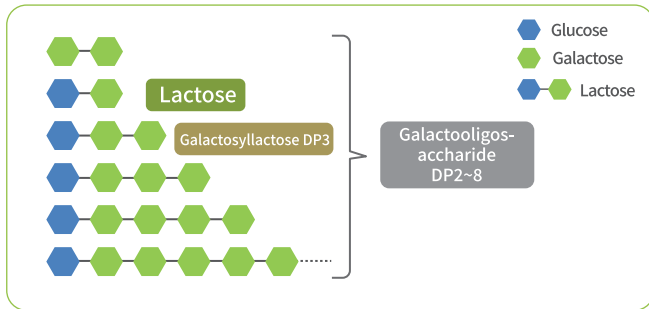


Figure 1. Constituents of Galactooligosaccharide

Advantages of Organic Galactooligosaccharide

Organic galactooligosaccharide is the first in the world which did not go through decoloration and ion purification process, etc. based on lactose from organic milk produced by organic dairy method.

Lactic Acid Bacteria Proliferation Effect of Organic Galactooligosaccharide (In-vitro)

In order to confirm the lactic acid bacteria proliferation effect of organic galactooligosaccharide, the growth of 4 types of lactic acid bacteria has been observed by anaerobic culture at 37°C after treating organic galactooligosaccharide from 0.5% to 3%. As a result, the proliferation effect of lactic acid bacteria was confirmed in treating organic galactooligosaccharide

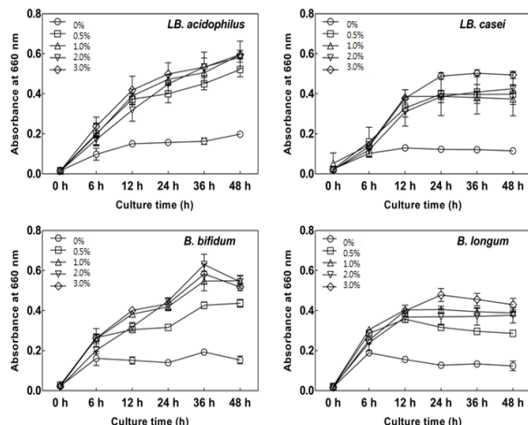


Figure 2. Proliferation Effect of Lb. acidophilus, Lb. casei, B. bifidum, B. longum (Source: In house data)

Effect of Organic Galactooligosaccharide to Relieve Constipation (In-vitro)

The number of feces, the weight of feces, the moisture of feces and so on have been checked for the effect of organic galactooligosaccharide to relieve constipation by using rats causing constipation, which confirmed that constipation has been relieved in the organic galactooligosaccharide intake group.

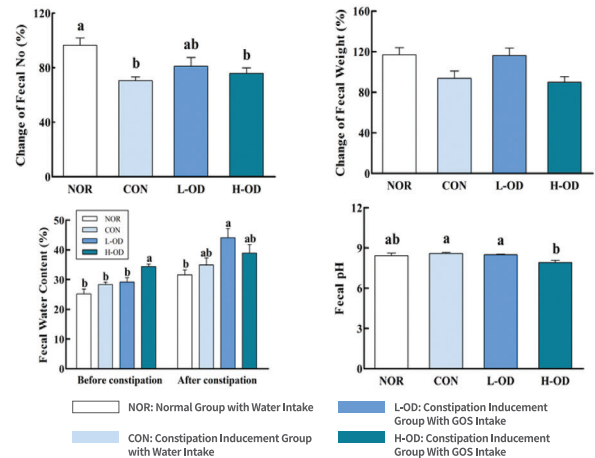
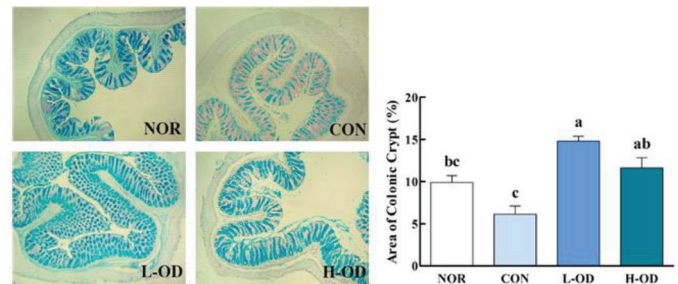


Figure 3. Effect to Relieve Constipation (Source : In house data)

In addition, as constipation stained the colonic mucous membrane of the causing groups, the secretory cells of crypt epithelial cells which show the increase in the secretion function of mucus compared with the normal group have significantly increased in the organic galactooligosaccharide intake group in comparison with the normal group and the control group.



Picture 4. Area of Colonic mucous membrane and Crypt epithelial cell (Source : In house data)

Safety of Organic Galactooligosaccharide

(Acute/Subacute/Toxicity Test Result)

The safety of Nature's GOS was confirmed by Specific Pathogen Free SD-rat. For acute toxicity, toxicity was evaluated by orally administering a high-capacity organic galactooligosaccharide of 5,000mg/kg and for subacute toxicity, toxicity was evaluated by administering organic galactooligosaccharide of 1,000mg/kg for 14 days. As a test result, acute toxicity and subacute toxicity were not observed.

Product Specifications

Item	Quality specification		
	Organic Galactooligosaccharide	Organic Galactooligosaccharide -CL	Organic Galactooligosaccharide Powder
Appearance	Liquid	Liquid	Powder
Solid content	≥ 75.0 Brix	74.0~76.0 Brix	≥ 95.0 Brix
Moisture	≤ 25.0 %	≤ 24.0 ~ 26.0 %	≤ 5.0 %
Total Galactooligosaccharide content (DB)	≥ 55.0 %	≥ 57.0 %	≥ 34.0 %
pH(10% solution)	4.0~7.0	3.2~3.8 (Pure)	4.0 ~ 7.0
Total plate count	≤ 3,000 cfu / g	≤ 3,000 cfu / g	≤ 1,000 cfu / g
Coliform group	Negative	Negative	Negative
Packing unit	20 kg / 1.2 Ton	20 kg / 1.2 Ton	25 kg