

【Applications】

- Functional Foods
- Nutraceuticals
- Dietary Supplements
- Medicinal Foods
- Cosmetics

【Manufacturer】

• Name	Qingdao Dakang Marine Biotechnology Co., Ltd a subsidiary of Qingdao Gather Great Ocean Algae Industry Group Co., Ltd.
• Business	To be a professional manufacturer of marine bioactive oligosaccharides Algae oligosaccharides and polysaccharides: alginate oligosaccharide(DK-AOS), agar oligosaccharide (DK-AGOS), carrageenan oligosaccharide (DK-CAOS), fucoidan (DK-FD), etc.
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ALGAOS

DK-AOS

(Alginate oligosaccharide)

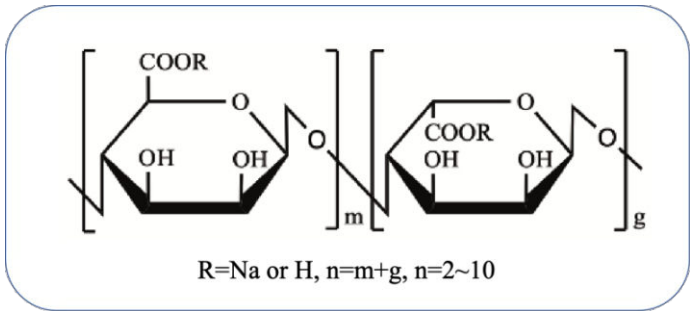
New Bioactive Compound
From Brown Algae



Qingdao Dakang Marine Biotechnology Co., Ltd

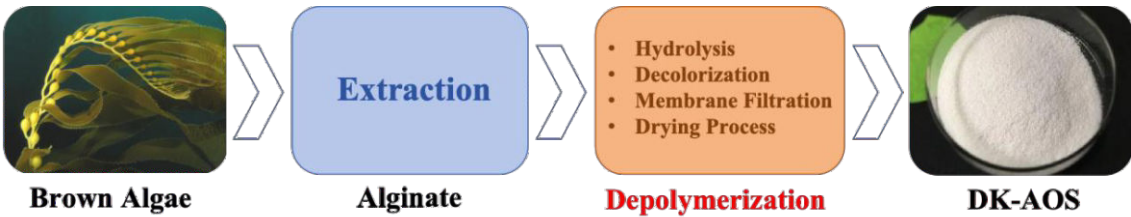
【Brief Introduction】

DK-AOS is composed of D-mannuronic acid and L-glucuronic acid with weight-average molecular weight not exceeding 2000 Da.



【Manufacturing Process】

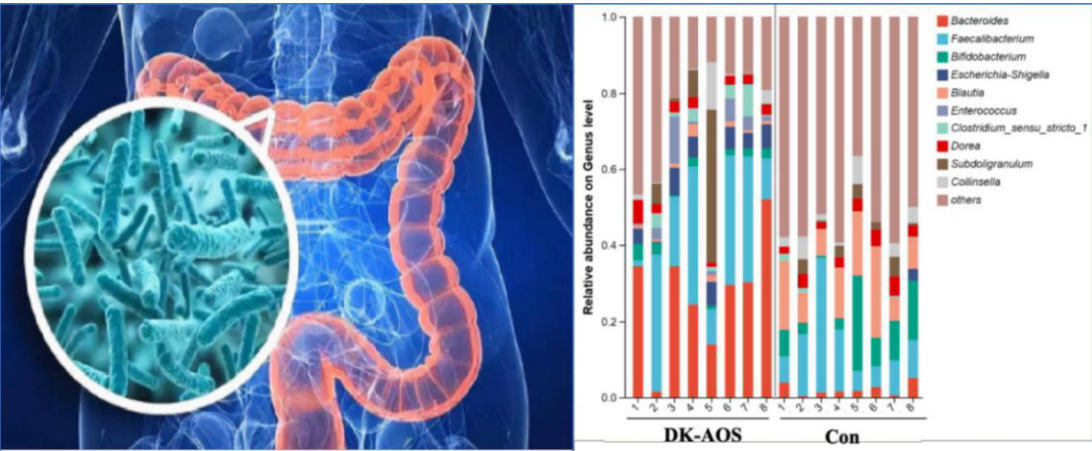
DK-AOS is obtained from brown algae through extraction, hydrolysis, purification,and drying.



【Biological Activities】

1) Prebiotic effect

DK-AOS is a new marine prebiotic that can significantly promote the abundance of the new-generation probiotics such as Bacteroides xylanisolvens and Faecalibacterium prausnitzii, promote the synthesis of short-chain fatty acid, and improve intestinal immunity.



DK-AOS has significant memory improvement effects. Based on the brain-gut axis theory, DK-AOS can reshape the balance of gut microbiota, inhibit the abnormal increase of specific metabolites in gut microbiota, reduce peripheral and central inflammation, thereby improving cognitive impairment.



3) Enhancing immunity

DK-AOS can significantly improve immunity, regulate various types of cytokines and complement, and has good activation and induction effects on non-specific immunity and specific immune system.

4) Antioxidant

DK-AOS has significant antioxidant effect and can alleviate alcohol-induced liver damage, Parkinson's and other diseases caused by oxidative stress.

5) Other activities

- **Moisturizing Effects:** DK-AOS can lock skin moisture, keep skin fresh and smooth, and make skin more elastic.
- **Delay Cell Aging:** DK-AOS can effectively eliminate free radicals such as superoxide anion (O_2^-), hydroxyl radical (OH^-), hydrogen peroxide (H_2O_2) that cause skin aging and spots, and delay cell aging.
- **Skin Repair:** DK-AOS can promote the migration of L929 cells and can be used for repairing damaged skin.

【Specification】

Analytical Test	Specification
Apperance	Light yellow amorphous powder
Content (%)	≥90.0
Content of Monosaccharide	≤1.0
Weight-Average Molecular Weight (kDa)	≤2000
Loss on Drying (%)	≤10.0
Ash (%)	18.0~27.0
Water Insoluble Substance (%)	≤0.5
pH (1%, Solution)	4.5~6.5
Pb (mg/kg)	≤2.0
As (mg/kg)	≤1.0
Hg (mg/kg)	≤0.3
Total Plate Count (CFU/g)	≤1000
Total Coliforms (MPN/100g)	≤30
Mold and Yeast (CFU/g)	≤50
Staphylococcus Aureus (/25g)	Not detectable
Salmonella (/25g)	Not detectable