



## **Antiviral properties of marine polysaccharides against coronavirus**

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### **Abstract:**

In recent years, persistent outbreaks of newfound viral diseases have caused irreparable damage to human health. Over the past decade, the number of approved antiviral drugs for clinical use has increased, but, drug-related problems such as low efficacy, toxicity, and high production costs, plus, lack of relative access to drugs, especially in developing countries, and microbial resistance have also been observed. Therefore, the production of new antiviral drugs is very important. Marine polysaccharides are biological macromolecules that are of particular importance and are widely available in marine organisms. So far, these polysaccharides have not been used as a new source of natural compounds for drug discovery. Polysaccharides can perform some biological reactions and act as antioxidants and anti-tumors, prevent viral and blood coagulation diseases, and reduce inflammation. Due to the fact that marine polysaccharides provide access to antiviral drugs, the interest for producing these compounds and their oligosaccharide derivatives is currently increasing. This group of polysaccharides includes sulfates and none sulfated, which have antiviral properties against a wide range of viruses such as human immunodeficiency virus, coronavirus, etc. Producing this compound is economically affordable as well.

**Keywords:** Antiviral properties, Coronavirus, Marine polysaccharides.