



## **POTENTIAL HEALTH EFFECTS OF GREEN RIVER ALGAE (AONORI) OF THE LPP COMPLEX, WITH A REFERENCE TO ULVA PROLIFERA**

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### **ABSTRACT**

Marine resources have been attracting the attention of researchers as they provide healthy foods and may provide new drugs. Of more than a hundred Ulva (Enteromorpha) species found in the world, three (known as LPP complex) have been identified in Japan, where they are used as food: Ulvalinza, Ulvaclathrata (procera) and Ulvaprolifera. This review paper reports on main compounds found in those green river algae (Aonori in Japanese) and highlights their potential prophylactic and therapeutic health effects. Scientific papers and reports on Ulva marine algae, their bioactive compounds and properties were collected using major scientific databases. Ulva species contain mainly ulvans (sulfated polysaccharides), phenolic compounds and flavonoids whose amount depends on species and the locations. In addition, terpenes and carotenoids have also been found in extracts from Ulvaprolifera. A number of experimental studies have shown that extracts and ulvans from Ulvaspecies have antioxidant, anti-inflammatory, anticoagulant, anticancer, antiviral effects. In particular, UlvaproliferaMüller, also known as ‘Shimanto-nori’ in Japan, exerts LDL-cholesterol lowering activity and increases adiponectin production. These health effects suggest that, apart from their nutritional value, Ulvabio materials may serve as source of natural prophylactic and therapeutic agents for cardiovascular and metabolic disorders. Further research is needed to confirm their beneficial health effects in humans.

**KEYWORDS:** Cardiometabolic Risks, LPP Complex, Ulva prolifera, Ulva linza, Ulva clathrata (Varprocera)