

研究業績 英文表記

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表題	スサビノリ EPAーリン脂質は肥満 db/db マウスの脂肪肝炎を軽減する
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英文	
Title	Eicosapentaenoic acid- containing polar lipids from seaweed Susabinori (Pyropia yezoensis) alleviate hepatic steatosis in obese db/db mice
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Abstract	<p>Nonalcoholic fatty liver disease (NAFLD) is emerging as the most common liver disease in industrialized countries. Because hepatic steatosis is an early pathogenesis of NAFLD, the discovery of food components that could ameliorate hepatic steatosis is of interest. Susabinori (Pyropia yezoensis) is recognized as one of the most delicious edible brown algae, and we prepared lipid component of susabinori (SNL), which is rich in eicosapentaenoic acid (EPA)-containing polar lipids. In this study, we tested whether feeding SNL to db/db mice protects them from developing obesity- induced hepatic steatosis. After four weeks of feeding, hepatomegaly, hepatic steatosis, and hepatic injury were markedly alleviated in SNL-fed db/db mice. These effects were partly attributable to the suppression of activities and mRNA expressions of lipogenic enzymes and enhanced levels of adiponectin due to the SNL diet. Additionally, mRNA expression of monocyte chemoattractant protein-1, an inflammatory chemokine, was markedly suppressed, and the mRNA levels of PPARδ, the anti-inflammatory transcription factor, were strongly enhanced in the livers of db/db mice by the SNL diet. We speculate that the development and progression of obesity-induced hepatic steatosis was prevented by the suppression of chronic inflammation due to the combination of bioactivities of EPA, phospholipids, and glycolipids in the SNL diet.</p>
keyword	NAFLD、Susabinori、MCP-、PPAR、EPA-containing polar lipids

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