DESCRIPTION

~~CAROTENOID DERIVATIVE, PHARMACEUTICALLY ACCEPTABLE SALT THEREOF, AND PHARMACEUTICALLY ACCEPTABLE ESTER OR AMIDE THEREOF~~

Technical Field

[0001]

The present invention relates to a carotenoid derivative that has excellent water solubility, and is useful as a medicine.

Background Art

[0002]

In a living body producing energy by aerobic respiration, a variety of an active oxygen is generated in the process. An active oxygen is a chemical species having higher reactivity than oxygen in the atmosphere. For example, a superoxide anion, a hydroxy radical, a singlet oxygen, hydrogen peroxide, a hydroperoxy radical and so on are known. It is known that excessive active oxygens generated in a cell non-specifically react with molecules in a living body such as a nucleic acid, a protein and a lipid to damage the cell and that they are involved with various diseases including metabolic syndrome such as diabetes, high blood pressure, hyperlipidemia and arteriosclerosis, a liver disease, a digestive system

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