

Cancer mouse abstract Mou

Title;Cancer prevention by astaxanthin, a natural carotenoid

Author; MOU X Y (Kyoto Prefectural Univ. Medicine Graduate School Of Medical Sci.)

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Abstract;Astaxanthin is a natural carotenoid. The anticarcinogenic effect of astaxanthin was shown in mouse lung and liver models. The effect of astaxanthin on cell proliferation, cell cycle progression and apoptosis was examined in the HepG2 human liver cancer cell line. Astaxanthin significantly inhibited the proliferation of liver cancer cells in a dose-dependent manner. Flow cytometric analysis demonstrated that astaxanthin restrained the cell cycle progression at G1, and induced apoptosis.

Further examinations by real-time quantitative RT-PCR revealed that astaxanthin enhanced the expression of p21CIP1/WAF1, GADD153 and c-myc genes. These results suggest that astaxanthin will be a promising agent for use in chemopreventive or therapeutics against cancer.